| ORF | "record" | Gene | Desc | | Arsenite/rank | e | n | F | arn1 | SD |
|---|---|---|---|---|---|---|---|---|---|---|
| YCR053W | 37186 | THR4 | threonine metabolism | 1 | 0.339 | 4 | 16 | 4 | -0.331 | 0.060 |
| YOR184W | 32440 | SER1 | purine base biosynthesis* | 2 | 0.476 | 4 | 16 | 0 | -0.586 | 0.102 |
| YGR208W | 34838 | SER2 | serine family amino acid biosyn | 3 | 0.484 | 4 | 12 | 0 | -0.667 | 0.167 |
| YJR109C | 36916 | CPA2 | arginine biosynthesis | 4 | 0.485 | 4 | 16 | 3 | -0.328 | 0.009 |
| YOR303W | 37337 | CPA1 | arginine biosynthesis | 5 | 0.486 | 4 | 16 | 3 | -0.435 | 0.080 |
| YLR436C | 36039 | ECM30 | cell wall organization and bioge | 6 | 0.526 | 4 | 8 | 0 | -0.160 | 0.054 |
| YOR302W | 37336 | | regulation of protein biosynthes | 7 | 0.584 | 4 | 16 | 1 | -0.163 | 0.122 |
| YER052C | 30187 | HOM3 | methionine metabolism* | 8 | 0.604 | 4 | 16 | 0 | -0.154 | 0.079 |
| YJR139C | 36933 | HOM6 | methionine metabolism* | 9 | 0.628 | 4 | 16 | 13 | -0.440 | 0.086 |
| YDR158W | 33516 | HOM2 | methionine metabolism* | 10 | 0.665 | 4 | 12 | 3 | -0.095 | 0.043 |
| YPR074C | 35493 | TKL1 | pentose-phosphate shunt | 11 | 0.674 | 4 | 15 | 7 | -0.270 | 0.028 |
| YOL058W | 31750 | ARG1 | arginine biosynthesis* | 12 | 0.689 | 4 | 15 | 0 | -0.168 | 0.061 |
| YDR127W | 34061 | ARO1 | aromatic amino acid family bios | 13 | 0.690 | 4 | 15 | 5 | -0.085 | 0.058 |
| YIL122W | 32281 | POG1 | re-entry into mitotic cell cycle af | 14 | 0.699 | 3 | 9 | 9 | | |
| YDR289C | 33648 | RTT103 | negative regulation of DNA tran | 15 | 0.714 | 4 | 11 | 0 | -0.226 | 0.017 |
| YDR136C | 34070 | VPS61 | protein-vacuolar targeting | 16 | 0.731 | 3 | 12 | 3 | | |
| YGL084C | 34451 | GUP1 | glycerol catabolism* | 17 | 0.758 | 3 | 9 | 3 | | |
| YML013W | 30560 | SEL1 | protein secretion | 18 | 0.763 | 4 | 8 | 0 | 0.092 | 0.040 |
| YML007W | 30569 | YAP1 | transcription* | 19 | 0.769 | 4 | 8 | 0 | -0.156 | 0.120 |
| YBL006C | 33032 | LDB7 | biological_process unknown | 20 | 0.771 | 4 | 8 | 0 | -0.093 | 0.021 |
| YLR027C | 31582 | AAT2 | nitrogen metabolism* | 21 | 0.773 | 4 | 16 | 0 | 0.016 | 0.066 |
| YNL307C | 31137 | MCK1 | protein amino acid phosphoryla | 22 | 0.780 | 4 | 8 | 0 | -0.314 | 0.008 |
| YOR070C | 31846 | GYP1 | vesicle-mediated transport | 23 | 0.782 | 4 | 16 | 0 | -0.107 | 0.024 |
| YOR322C | 31619 | | biological_process unknown | 24 | 0.783 | 4 | 11 | 0 | -0.035 | 0.082 |
| YPR060C | 35479 | ARO7 | aromatic amino acid family bios | 25 | 0.787 | 4 | 12 | 0 | -0.241 | 0.022 |
| YFR036W | 35850 | CDC26 | ubiquitin-dependent protein cata | 26 | 0.795 | 4 | 16 | 0 | -0.107 | 0.050 |
| YLR079W | 32690 | SIC1 | G1/S transition of mitotic cell cy | 27 | 0.804 | 4 | 14 | 1 | -0.118 | 0.062 |
| YDR079W | 34014 | PET100 | aerobic respiration* | 28 | 0.805 | 4 | 11 | 0 | 0.123 | 0.031 |
| YGL148W | 34515 | ARO2 | aromatic amino acid family bios | 29 | 0.805 | 4 | 12 | 0 | -0.125 | 0.065 |
| YIL044C | 31437 | AGE2 | ER to Golgi transport* | 30 | 0.815 | 4 | 16 | 0 | -0.091 | 0.031 |
| YDR477W | 34311 | SNF1 | protein amino acid phosphoryla | 31 | 0.817 | 3 | 6 | 4 | | |
| YFR040W | 35854 | SAP155 | G1/S transition of mitotic cell cy | 32 | 0.818 | 4 | 15 | 0 | -0.098 | 0.071 |
| YPL241C | 31051 | CIN2 | microtubule-based process | 33 | 0.828 | 4 | 15 | 0 | -0.123 | 0.011 |
| YBL051C | 33077 | PIN4 | biological_process unknown | 34 | 0.829 | 4 | 16 | 0 | -0.157 | 0.054 |
| YBR291C | 35739 | CTP1 | mitochondrial citrate transport | 35 | 0.829 | 4 | 16 | 0 | -0.176 | 0.028 |
| YLR252W | 35161 | | | 36 | 0.830 | 4 | 16 | 0 | -0.186 | 0.046 |
| YMR307W | 30897 | GAS1 | cell wall organization and bioge | 37 | 0.832 | 4 | 12 | 3 | -0.375 | 0.138 |
| YML062C | 30508 | MFT1 | mRNA-nucleus export* | 38 | 0.837 | 4 | 8 | 0 | -0.049 | 0.043 |
| YDL133W | 33830 | | biological_process unknown | 39 | 0.838 | 4 | 12 | 0 | -0.195 | 0.038 |
| YER123W | 36122 | YCK3 | protein amino acid phosphoryla | 40 | 0.840 | 4 | 15 | 1 | 0.052 | 0.008 |
| YOL081W | 31772 | IRA2 | RAS protein signal transduction | 41 | 0.841 | 4 | 16 | 0 | -0.272 | 0.039 |
| YHR167W | 32861 | THP2 | mRNA-nucleus export* | 42 | 0.842 | 4 | 16 | 0 | -0.062 | 0.042 |
| YBR277C | 35725 | | | 43 | 0.844 | 4 | 8 | 0 | -0.229 | 0.029 |
| YKL002W | 34850 | DID4 | late endosome to vacuole trans | 44 | 0.846 | 4 | 8 | 0 | 0.019 | 0.035 |
| YCR086W | 35804 | CSM1 | meiotic chromosome segregatic | 45 | 0.846 | 4 | 8 | 0 | -0.211 | 0.008 |
| YJL121C | 31305 | RPE1 | pentose-phosphate shunt | 46 | 0.848 | 4 | 11 | 0 | -0.087 | 0.022 |
| YDR017C | 33956 | KCS1 | response to stress* | 47 | 0.850 | 3 | 6 | 0 | | |
| YPR201W | 35616 | ARR3 | arsenite transport | 48 | 0.851 | 4 | 16 | 0 | -0.189 | 0.086 |
| YOR109W | 32365 | INP53 | cell wall organization and bioge | 49 | 0.852 | 4 | 8 | 0 | -0.121 | 0.078 |
| YLR261C | 35170 | VPS63 | protein-vacuolar targeting | 50 | 0.852 | 4 | 12 | 0 | -0.168 | 0.043 |
| YHL031C | 30932 | GOS1 | intra-Golgi transport* | 51 | 0.855 | 4 | 16 | 0 | -0.122 | 0.074 |

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|---|---|---|---|---|---|---|---|---|---|
| YML016C | 30557 | PPZ1 | sodium ion homeostasis | 52 | 0.855 | 4 | 8 | 0 | -0.125 | 0.109 |
| YDR181C | 33540 | SAS4 | chromatin silencing at telomere | 53 | 0.856 | 4 | 15 | 0 | -0.074 | 0.028 |
| YBR061C | 33198 | TRM7 | protein biosynthesis* | 54 | 0.857 | 4 | 16 | 0 | -0.126 | 0.042 |
| YFL056C | 35677 | AAD6 | aldehyde metabolism | 55 | 0.857 | 4 | 15 | 0 | -0.210 | 0.039 |
| YCR036W | 35765 | RBK1 | D-ribose metabolism | 56 | 0.858 | 4 | 16 | 0 | -0.109 | 0.062 |
| YKR007W | 35078 | | biological_process unknown | 57 | 0.858 | 4 | 16 | 0 | -0.179 | 0.019 |
| YDR048C | 37204 | | | 58 | 0.858 | 3 | 6 | 1 | | |
| YLR426W | 36029 | | biological_process unknown | 59 | 0.859 | 4 | 16 | 0 | -0.172 | 0.052 |
| YCR050C | 35774 | | | 60 | 0.861 | 4 | 16 | 0 | -0.102 | 0.033 |
| YHL009C | 30954 | YAP3 | regulation of transcription from I | 61 | 0.862 | 4 | 16 | 0 | -0.151 | 0.049 |
| YCL001W | 35749 | | biological_process unknown | 62 | 0.864 | 4 | 16 | 0 | -0.170 | 0.039 |
| YHR018C | 30981 | ARG4 | arginine biosynthesis | 63 | 0.865 | 4 | 16 | 0 | -0.035 | 0.039 |
| YCR003W | 33483 | MRPL32 | protein biosynthesis | 64 | 0.866 | 4 | 13 | 1 | -0.266 | 0.093 |
| YLR374C | 35283 | | | 65 | 0.866 | 3 | 6 | 0 | | |
| YNL241C | 31971 | ZWF1 | pentose-phosphate shunt | 66 | 0.866 | 4 | 15 | 0 | 0.006 | 0.002 |
| YDL160C | 33858 | DHH1 | deadenylation-dependent decap | 67 | 0.867 | 4 | 15 | 0 | -0.284 | 0.127 |
| YDL066W | 33763 | IDP1 | glutamate biosynthesis* | 68 | 0.867 | 4 | 14 | 0 | -0.113 | 0.005 |
| YBR027C | 33164 | | | 69 | 0.868 | 4 | 16 | 0 | -0.164 | 0.050 |
| YDR469W | 34303 | SDC1 | chromatin silencing at telomere | 70 | 0.868 | 4 | 16 | 0 | -0.120 | 0.074 |
| YKL176C | 35026 | LST4 | vesicle-mediated transport* | 71 | 0.870 | 4 | 16 | 0 | 0.015 | 0.040 |
| YBL089W | 33115 | AVT5 | transport | 72 | 0.870 | 4 | 16 | 0 | -0.102 | 0.042 |
| YBR297W | 35745 | MAL33 | regulation of transcription, DNA | 73 | 0.870 | 4 | 16 | 0 | -0.169 | 0.042 |
| YGR057C | 34687 | LST7 | vesicle-mediated transport* | 74 | 0.870 | 4 | 16 | 0 | -0.155 | 0.057 |
| YOR349W | 31646 | CIN1 | post-chaperonin tubulin folding | 75 | 0.871 | 4 | 16 | 0 | -0.190 | 0.063 |
| YML121W | 36522 | GTR1 | phosphate transport | 76 | 0.873 | 4 | 16 | 0 | -0.127 | 0.106 |
| YOR065W | 31841 | CYT1 | mitochondrial electron transport | 77 | 0.873 | 4 | 16 | 0 | -0.148 | 0.027 |
| YPL253C | 31039 | VIK1 | microtubule-based process | 78 | 0.874 | 4 | 12 | 0 | -0.183 | 0.065 |
| YJR018W | 36816 | | | 79 | 0.874 | 4 | 8 | 0 | 0.072 | 0.023 |
| YDL067C | 33764 | COX9 | aerobic respiration | 80 | 0.875 | 4 | 16 | 0 | -0.119 | 0.068 |
| YBR094W | 33233 | | biological_process unknown | 81 | 0.876 | 4 | 16 | 0 | -0.037 | 0.027 |
| YDL048C | 33745 | STP4 | biological_process unknown | 82 | 0.878 | 4 | 16 | 0 | -0.129 | 0.070 |
| YBL008W | 33034 | HIR1 | regulation of transcription from I | 83 | 0.879 | 4 | 16 | 0 | -0.051 | 0.023 |
| YLR262C | 35171 | YPT6 | intracellular protein transport* | 84 | 0.879 | 4 | 11 | 0 | -0.054 | 0.017 |
| YMR127C | 36568 | SAS2 | chromatin silencing at telomere | 85 | 0.879 | 4 | 16 | 0 | -0.094 | 0.052 |
| YLL040C | 31528 | VPS13 | late endosome to vacuole trans | 86 | 0.879 | 4 | 8 | 0 | -0.104 | 0.017 |
| YBR064W | 33201 | | | 87 | 0.879 | 4 | 16 | 0 | -0.062 | 0.041 |
| YBR006W | 33141 | UGA2 | response to oxidative stress* | 88 | 0.881 | 4 | 16 | 0 | -0.306 | 0.085 |
| YHR009C | 36606 | | biological_process unknown | 89 | 0.882 | 4 | 16 | 0 | -0.061 | 0.029 |
| YIL148W | 32307 | RPL40A | protein biosynthesis* | 90 | 0.882 | 4 | 16 | 0 | -0.087 | 0.033 |
| YBR298C | 35746 | MAL31 | alpha-glucoside transport | 91 | 0.883 | 4 | 16 | 0 | -0.120 | 0.054 |
| YCR061W | 35782 | | biological_process unknown | 92 | 0.884 | 4 | 8 | 0 | -0.014 | 0.004 |
| YLR032W | 36430 | RAD5 | DNA repair | 93 | 0.884 | 4 | 16 | 0 | -0.049 | 0.094 |
| YGR192C | 34822 | TDH3 | gluconeogenesis* | 94 | 0.884 | 4 | 16 | 0 | -0.143 | 0.069 |
| YDL076C | 33773 | RXT3 | biological_process unknown | 95 | 0.885 | 4 | 16 | 0 | -0.075 | 0.022 |
| YPL180W | 32072 | TCO89 | glycerol metabolism | 96 | 0.885 | 4 | 8 | 0 | -0.100 | 0.036 |
| YBR077C | 33214 | | biological_process unknown | 97 | 0.885 | 4 | 16 | 0 | -0.132 | 0.062 |
| YJR075W | 32553 | HOC1 | cell wall mannoprotein biosynth | 98 | 0.885 | 4 | 16 | 0 | -0.092 | 0.041 |
| YHR154W | 32848 | RTT107 | negative regulation of DNA tran | 99 | 0.886 | 4 | 11 | 0 | -0.120 | 0.063 |
| YDR484W | 34318 | VPS52 | Golgi to vacuole transport* | 100 | 0.886 | 4 | 8 | 0 | 0.122 | 0.062 |
| YKR006C | 35077 | MRPL13 | protein biosynthesis | 101 | 0.887 | 4 | 16 | 0 | -0.147 | 0.031 |
| YDR137W | 34071 | RGP1 | intracellular protein transport | 102 | 0.887 | 4 | 15 | 1 | 0.052 | 0.025 |
| YML117W | 36517 | NAB6 | biological_process unknown | 103 | 0.887 | 4 | 16 | 0 | -0.101 | 0.082 |

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|---|---|---|---|---|---|---|---|---|---|---|
| YOL089C | 36239 | HAL9 | transcription initiation from Pol I | 104 | 0.887 | 4 | 14 | 0 | -0.182 | 0.010 |
| YDR078C | 34013 | SHU2 | biological_process unknown | 105 | 0.887 | 4 | 11 | 0 | -0.053 | 0.019 |
| YPL269W | 31023 | KAR9 | nuclear migration (sensu Sacch | 106 | 0.889 | 4 | 16 | 0 | -0.118 | 0.028 |
| YGR229C | 35882 | SMI1 | cell wall organization and bioge | 107 | 0.890 | 4 | 16 | 0 | -0.184 | 0.046 |
| YML095C- | 36493 | | | 108 | 0.891 | 4 | 16 | 1 | -0.130 | 0.040 |
| YLR268W | 35177 | SEC22 | ER to Golgi transport* | 109 | 0.891 | 4 | 11 | 0 | -0.148 | 0.031 |
| YBL022C | 33048 | PIM1 | proteolysis and peptidolysis* | 110 | 0.892 | 4 | 16 | 0 | -0.092 | 0.086 |
| YNL070W | 37217 | TOM7 | mitochondrial translocation | 111 | 0.892 | 4 | 16 | 0 | -0.143 | 0.021 |
| YBL013W | 33039 | FMT1 | translational initiation* | 112 | 0.893 | 4 | 12 | 0 | -0.068 | 0.039 |
| YHR129C | 31957 | ARP1 | mitotic anaphase B | 113 | 0.893 | 4 | 16 | 0 | -0.084 | 0.045 |
| YJL138C | 31287 | TIF2 | translational initiation* | 114 | 0.893 | 4 | 16 | 0 | -0.115 | 0.034 |
| YPL041C | 32787 | | biological_process unknown | 115 | 0.894 | 4 | 8 | 0 | -0.028 | 0.040 |
| YMR021C | 30596 | MAC1 | positive regulation of transcripti | 116 | 0.894 | 3 | 6 | 0 | | |
| YOL088C | 36238 | MPD2 | protein folding | 117 | 0.894 | 4 | 16 | 0 | -0.124 | 0.031 |
| YOL018C | 31709 | TLG2 | nonselective vesicle fusion | 118 | 0.895 | 4 | 8 | 0 | 0.002 | 0.004 |
| YHR030C | 30993 | SLT2 | cell wall organization and bioge | 119 | 0.896 | 4 | 11 | 0 | -0.011 | 0.022 |
| YJL192C | 31233 | SOP4 | ER to Golgi transport | 120 | 0.896 | 4 | 16 | 0 | -0.318 | 0.104 |
| YNL025C | 35351 | SSN8 | meiosis* | 121 | 0.896 | 4 | 15 | 0 | -0.121 | 0.030 |
| YDL009C | 33705 | | | 122 | 0.896 | 4 | 16 | 0 | -0.070 | 0.028 |
| YGR228W | 35881 | | | 123 | 0.896 | 4 | 16 | 0 | -0.078 | 0.053 |
| YML075C | 36733 | HMG1 | ergosterol biosynthesis | 124 | 0.896 | 4 | 16 | 0 | -0.082 | 0.039 |
| YEL024W | 30265 | RIP1 | aerobic respiration* | 125 | 0.896 | 4 | 16 | 0 | -0.119 | 0.052 |
| YDR120C | 34054 | TRM1 | tRNA methylation | 126 | 0.897 | 4 | 16 | 0 | -0.098 | 0.021 |
| YCR068W | 35789 | ATG15 | autophagy* | 127 | 0.898 | 4 | 16 | 0 | -0.124 | 0.065 |
| YLR039C | 36437 | RIC1 | intracellular protein transport | 128 | 0.898 | 4 | 8 | 0 | 0.123 | 0.016 |
| YGL035C | 34403 | MIG1 | regulation of transcription from I | 129 | 0.899 | 4 | 11 | 0 | -0.174 | 0.023 |
| YER097W | 36403 | | | 130 | 0.899 | 4 | 16 | 0 | -0.004 | 0.030 |
| YNL283C | 31161 | WSC2 | cell wall organization and bioge | 131 | 0.899 | 4 | 16 | 0 | -0.101 | 0.032 |
| YJR152W | 32630 | DAL5 | allantoate transport | 132 | 0.900 | 4 | 16 | 0 | -0.013 | 0.030 |
| YCR087C- | 35805 | | biological_process unknown | 133 | 0.900 | 4 | 16 | 0 | -0.095 | 0.014 |
| YLR015W | 31570 | BRE2 | transcription* | 134 | 0.901 | 4 | 16 | 0 | -0.111 | 0.064 |
| YGR163W | 34793 | GTR2 | biological_process unknown | 135 | 0.901 | 4 | 15 | 0 | -0.120 | 0.071 |
| YOR284W | 32540 | HUA2 | biological_process unknown | 136 | 0.901 | 4 | 16 | 0 | -0.104 | 0.067 |
| YLR025W | 31580 | SNF7 | late endosome to vacuole trans | 137 | 0.901 | 4 | 16 | 0 | 0.062 | 0.037 |
| YMR275C | 30861 | BUL1 | protein monoubiquitination* | 138 | 0.901 | 4 | 16 | 0 | -0.134 | 0.088 |
| YCR026C | 35755 | | biological_process unknown | 139 | 0.901 | 4 | 8 | 0 | -0.081 | 0.014 |
| YJR010C- | 36807 | SPC1 | signal peptide processing | 140 | 0.901 | 3 | 6 | 0 | | |
| YBL002W | 33026 | HTB2 | chromatin assembly/disassemb | 141 | 0.902 | 4 | 16 | 0 | -0.072 | 0.031 |
| YEL009C | 30249 | GCN4 | regulation of transcription from I | 142 | 0.902 | 4 | 16 | 0 | -0.074 | 0.036 |
| YBL015W | 33041 | ACH1 | acetate metabolism* | 143 | 0.902 | 4 | 16 | 0 | -0.026 | 0.031 |
| YOR371C | 31668 | GPB1 | signal transduction | 144 | 0.902 | 4 | 16 | 0 | -0.172 | 0.026 |
| YHR031C | 30994 | RRM3 | DNA replication | 145 | 0.903 | 4 | 11 | 0 | 0.036 | 0.029 |
| YIL002C | 31394 | INP51 | cell wall organization and bioge | 146 | 0.903 | 4 | 16 | 0 | -0.136 | 0.059 |
| YBL046W | 33072 | | biological_process unknown | 147 | 0.903 | 4 | 16 | 0 | -0.081 | 0.013 |
| YJL185C | 31240 | | biological_process unknown | 148 | 0.903 | 4 | 16 | 0 | -0.177 | 0.032 |
| YDL059C | 33756 | RAD59 | double-strand break repair via b | 149 | 0.904 | 4 | 16 | 0 | -0.047 | 0.025 |
| YKL053W | 34902 | | | 150 | 0.904 | 4 | 16 | 0 | -0.112 | 0.024 |
| YNL100W | 37236 | | biological_process unknown | 151 | 0.905 | 4 | 16 | 0 | -0.086 | 0.045 |
| YBR108W | 33247 | | biological_process unknown | 152 | 0.905 | 4 | 8 | 0 | -0.043 | 0.047 |
| YCL006C | 33414 | | | 153 | 0.906 | 4 | 16 | 0 | -0.034 | 0.034 |
| YML110C | 36510 | COQ5 | aerobic respiration* | 154 | 0.906 | 4 | 16 | 0 | -0.081 | 0.032 |
| YGL027C | 34395 | CWH41 | cell wall organization and bioge | 155 | 0.906 | 4 | 11 | 0 | -0.153 | 0.021 |

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|---|---|---|---|---|---|---|---|---|---|---|
| YLR330W | 35239 | CHS5 | conjugation with cellular fusion* | 156 | 0.906 | 4 | 16 | 0 | -0.158 | 0.033 |
| YDR512C | 34346 | EMI1 | biological_process unknown | 157 | 0.907 | 4 | 15 | 0 | -0.029 | 0.033 |
| YBR037C | 33174 | SCO1 | protein complex assembly* | 158 | 0.907 | 4 | 12 | 0 | -0.089 | 0.097 |
| YPR199C | 35614 | ARR1 | positive regulation of transcripti | 159 | 0.907 | 4 | 16 | 0 | -0.091 | 0.021 |
| YCR045C | 35769 | | biological_process unknown | 160 | 0.907 | 4 | 16 | 0 | -0.066 | 0.018 |
| YMR073C | 36206 | | biological_process unknown | 161 | 0.908 | 4 | 16 | 0 | -0.076 | 0.057 |
| YLR073C | 32684 | | biological_process unknown | 162 | 0.908 | 4 | 11 | 0 | -0.073 | 0.037 |
| YHR135C | 31963 | YCK1 | protein amino acid phosphorylat | 163 | 0.908 | 4 | 16 | 0 | -0.072 | 0.047 |
| YPL032C | 32796 | SVL3 | endocytosis | 164 | 0.908 | 4 | 16 | 0 | 0.038 | 0.059 |
| YNL072W | 37219 | RNH35 | DNA replication | 165 | 0.908 | 3 | 9 | 0 | | |
| YJL217W | 31208 | | biological_process unknown | 166 | 0.909 | 4 | 16 | 0 | -0.074 | 0.085 |
| YOL087C | 36237 | | biological_process unknown | 167 | 0.909 | 4 | 12 | 0 | -0.102 | 0.050 |
| YCR044C | 35768 | PER1 | response to unfolded protein* | 168 | 0.909 | 4 | 14 | 2 | -0.103 | 0.062 |
| YPR050C | 37149 | | | 169 | 0.910 | 4 | 16 | 0 | -0.144 | 0.065 |
| YPL036W | 37342 | PMA2 | regulation of pH* | 170 | 0.910 | 4 | 16 | 0 | -0.001 | 0.018 |
| YBR284W | 35732 | | biological_process unknown | 171 | 0.910 | 4 | 16 | 0 | -0.124 | 0.035 |
| YDL037C | 33733 | BSC1 | biological_process unknown | 172 | 0.910 | 4 | 11 | 0 | -0.097 | 0.034 |
| YCR025C | 35754 | | | 173 | 0.911 | 4 | 16 | 0 | -0.058 | 0.032 |
| YPL259C | 31033 | APM1 | vesicle-mediated transport | 174 | 0.911 | 4 | 16 | 0 | 0.017 | 0.005 |
| YIL153W | 32312 | RRD1 | DNA repair* | 175 | 0.911 | 4 | 15 | 0 | -0.156 | 0.128 |
| YCL056C | 33463 | | biological_process unknown | 176 | 0.912 | 4 | 16 | 0 | -0.053 | 0.029 |
| YNL199C | 32013 | GCR2 | positive regulation of transcripti | 177 | 0.912 | 3 | 6 | 0 | | |
| YCL060C | 33467 | | | 178 | 0.912 | 4 | 16 | 0 | -0.024 | 0.046 |
| YCR079W | 35798 | | biological_process unknown | 179 | 0.912 | 4 | 16 | 0 | -0.058 | 0.040 |
| YDL091C | 33788 | | biological_process unknown | 180 | 0.912 | 4 | 16 | 0 | -0.033 | 0.033 |
| YOR158W | 32414 | PET123 | protein biosynthesis | 181 | 0.913 | 4 | 16 | 0 | -0.039 | 0.057 |
| YPL203W | 31089 | TPK2 | protein amino acid phosphorylat | 182 | 0.913 | 4 | 15 | 0 | -0.037 | 0.066 |
| YDR253C | 33612 | MET32 | sulfur amino acid metabolism | 183 | 0.913 | 4 | 15 | 0 | 0.018 | 0.042 |
| YOR213C | 32469 | SAS5 | chromatin silencing at telomere | 184 | 0.914 | 4 | 16 | 0 | -0.045 | 0.039 |
| YDL052C | 33749 | SLC1 | sphingolipid biosynthesis | 185 | 0.914 | 4 | 16 | 0 | -0.073 | 0.037 |
| YMR062C | 36195 | ECM40 | cell wall organization and bioge | 186 | 0.914 | 4 | 11 | 0 | -0.036 | 0.004 |
| YDL073W | 33770 | | biological_process unknown | 187 | 0.914 | 4 | 16 | 0 | -0.029 | 0.035 |
| YJR146W | 32624 | | | 188 | 0.914 | 4 | 16 | 0 | -0.035 | 0.053 |
| YCR087W | 35806 | | | 189 | 0.914 | 4 | 16 | 0 | -0.100 | 0.055 |
| YDR085C | 34020 | AFR1 | signal transduction during conju | 190 | 0.915 | 4 | 16 | 0 | -0.054 | 0.054 |
| YBR292C | 35740 | | | 191 | 0.915 | 4 | 16 | 0 | -0.068 | 0.048 |
| YMR031W | 30606 | | | 192 | 0.915 | 4 | 8 | 0 | -0.017 | 0.130 |
| YDR493W | 37261 | | biological_process unknown | 193 | 0.915 | 4 | 16 | 0 | -0.232 | 0.102 |
| YBR269C | 35717 | | biological_process unknown | 194 | 0.915 | 4 | 16 | 0 | -0.084 | 0.088 |
| YBR278W | 35726 | DPB3 | lagging strand elongation* | 195 | 0.915 | 4 | 15 | 0 | -0.053 | 0.021 |
| YCR009C | 33489 | RVS161 | endocytosis* | 196 | 0.915 | 3 | 9 | 1 | | |
| YIL067C | 31460 | | biological_process unknown | 197 | 0.915 | 4 | 11 | 0 | 0.117 | 0.035 |
| YOR107W | 32363 | RGS2 | G-protein signaling, coupled to c | 198 | 0.915 | 4 | 16 | 0 | -0.088 | 0.019 |
| YCL012W | 33420 | | | 199 | 0.916 | 4 | 16 | 0 | -0.094 | 0.048 |
| YDR423C | 34259 | CAD1 | positive regulation of transcripti | 200 | 0.916 | 4 | 16 | 0 | -0.092 | 0.030 |
| YBR295W | 35743 | PCA1 | copper ion homeostasis | 201 | 0.916 | 4 | 16 | 0 | -0.057 | 0.021 |
| YKL135C | 34985 | APL2 | vesicle-mediated transport | 202 | 0.916 | 4 | 8 | 0 | -0.164 | 0.034 |
| YBL010C | 33036 | | biological_process unknown | 203 | 0.916 | 4 | 16 | 0 | -0.042 | 0.023 |
| YJL162C | 31263 | | biological_process unknown | 204 | 0.917 | 4 | 16 | 0 | -0.040 | 0.048 |
| YPL161C | 32091 | BEM4 | establishment of cell polarity (se | 205 | 0.917 | 4 | 12 | 0 | -0.044 | 0.017 |
| YCL005W | 33413 | | biological_process unknown | 206 | 0.917 | 4 | 16 | 0 | -0.053 | 0.022 |
| YMR237W | 30823 | | biological_process unknown | 207 | 0.917 | 4 | 16 | 0 | -0.081 | 0.097 |

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|---|---|---|---|---|---|---|---|---|---|---|
| YCR082W | 35800 | | biological_process unknown | 208 | 0.917 | 4 | 16 | 0 | -0.100 | 0.043 |
| YMR263W | 30849 | SAP30 | chromatin silencing at telomere | 209 | 0.917 | 4 | 8 | 0 | 0.015 | 0.031 |
| YKL087C | 34936 | CYT2 | cytochrome c-heme linkage | 210 | 0.918 | 4 | 16 | 0 | -0.067 | 0.083 |
| YLR087C | 32698 | CSF1 | fermentation | 211 | 0.918 | 4 | 14 | 0 | -0.131 | 0.002 |
| YDR135C | 34069 | YCF1 | bilirubin transport* | 212 | 0.918 | 4 | 16 | 0 | -0.082 | 0.036 |
| YOL064C | 31756 | MET22 | sulfate assimilation* | 213 | 0.918 | 4 | 11 | 0 | 0.034 | 0.018 |
| YBR047W | 33184 | | biological_process unknown | 214 | 0.918 | 4 | 16 | 0 | 0.023 | 0.028 |
| YPL037C | 32791 | EGD1 | nascent polypeptide associatior | 215 | 0.918 | 4 | 16 | 0 | -0.060 | 0.020 |
| YDL093W | 33790 | PMT5 | O-linked glycosylation | 216 | 0.918 | 4 | 16 | 0 | 0.004 | 0.019 |
| YJR043C | 36841 | POL32 | lagging strand elongation* | 217 | 0.918 | 4 | 16 | 0 | -0.090 | 0.077 |
| YIL154C | 32313 | IMP2' | DNA repair* | 218 | 0.919 | 4 | 16 | 0 | -0.130 | 0.045 |
| YPR133W | 37406 | TOM5 | mitochondrial translocation | 219 | 0.920 | 4 | 16 | 0 | -0.169 | 0.030 |
| YGR223C | 35876 | | biological_process unknown | 220 | 0.920 | 4 | 16 | 0 | -0.117 | 0.058 |
| YMR172C | 30756 | | | 221 | 0.920 | 4 | 15 | 0 | -0.044 | 0.085 |
| YDL051W | 33748 | LHP1 | tRNA processing | 222 | 0.920 | 4 | 16 | 0 | -0.084 | 0.045 |
| YOR104W | 32360 | PIN2 | biological_process unknown | 223 | 0.920 | 4 | 8 | 0 | -0.077 | 0.028 |
| YMR022W | 30597 | QRI8 | ER-associated protein catabolis | 224 | 0.920 | 4 | 8 | 0 | -0.007 | 0.090 |
| YAR003W | 30408 | SWD1 | chromatin silencing at telomere | 225 | 0.920 | 4 | 8 | 0 | -0.060 | 0.010 |
| YJR148W | 36939 | BAT2 | branched chain family amino ac | 226 | 0.921 | 4 | 16 | 0 | -0.050 | 0.041 |
| YLR348C | 35257 | DIC1 | dicarboxylic acid transport | 227 | 0.921 | 4 | 16 | 0 | -0.055 | 0.061 |
| YBR009C | 33144 | HHF1 | chromatin assembly/disassemb | 228 | 0.921 | 4 | 14 | 0 | 0.068 | 0.009 |
| YML021C | 36067 | UNG1 | DNA repair | 229 | 0.921 | 4 | 15 | 0 | -0.132 | 0.013 |
| YDR059C | 33994 | UBC5 | response to stress* | 230 | 0.921 | 4 | 16 | 0 | -0.050 | 0.045 |
| YHR032W | 36412 | | biological_process unknown | 231 | 0.921 | 4 | 12 | 0 | -0.069 | 0.026 |
| YJL058C | 31365 | BIT61 | biological_process unknown | 232 | 0.922 | 4 | 16 | 0 | -0.057 | 0.026 |
| YCR027C | 35756 | RHB1 | L-arginine transport* | 233 | 0.922 | 4 | 8 | 0 | -0.118 | 0.054 |
| YCL045C | 33452 | | biological_process unknown | 234 | 0.922 | 4 | 16 | 0 | -0.109 | 0.025 |
| YBR296C | 35744 | PHO89 | phosphate transport | 235 | 0.922 | 4 | 12 | 0 | -0.069 | 0.039 |
| YPL202C | 31090 | AFT2 | transcription initiation from Pol I | 236 | 0.922 | 4 | 16 | 0 | -0.061 | 0.040 |
| YCL033C | 33440 | | response to oxidative stress | 237 | 0.922 | 4 | 16 | 0 | -0.072 | 0.034 |
| YDL057W | 33754 | | biological_process unknown | 238 | 0.922 | 4 | 16 | 0 | -0.040 | 0.049 |
| YCL057W | 33464 | PRD1 | proteolysis and peptidolysis | 239 | 0.922 | 4 | 16 | 0 | -0.057 | 0.070 |
| YKL215C | 37038 | | biological_process unknown | 240 | 0.922 | 4 | 16 | 0 | -0.154 | 0.217 |
| YIR029W | 35964 | DAL2 | allantoin catabolism | 241 | 0.923 | 4 | 12 | 0 | -0.156 | 0.051 |
| YAL040C | 30366 | CLN3 | G1/S transition of mitotic cell cy | 242 | 0.923 | 4 | 8 | 0 | -0.004 | 0.000 |
| YKR001C | 35072 | VPS1 | protein-vacuolar targeting* | 243 | 0.923 | 3 | 6 | 0 | | |
| YCR024C | 35753 | PMP1 | cation transport | 244 | 0.923 | 4 | 16 | 0 | -0.047 | 0.020 |
| YPL027W | 37340 | SMA1 | spore wall assembly (sensu Sac | 245 | 0.923 | 4 | 16 | 0 | -0.075 | 0.055 |
| YDR075W | 34010 | PPH3 | protein amino acid dephosphory | 246 | 0.923 | 4 | 16 | 0 | -0.093 | 0.035 |
| YDR411C | 34247 | | biological_process unknown | 247 | 0.923 | 4 | 16 | 0 | -0.126 | 0.031 |
| YDL025C | 33721 | | biological_process unknown | 248 | 0.923 | 4 | 16 | 0 | -0.071 | 0.009 |
| YBR054W | 33191 | YRO2 | biological_process unknown | 249 | 0.924 | 4 | 16 | 0 | 0.011 | 0.027 |
| YDR149C | 33507 | | | 250 | 0.924 | 3 | 9 | 0 | | |
| YMR319C | 36461 | FET4 | intracellular copper ion transpor | 251 | 0.924 | 4 | 16 | 0 | -0.057 | 0.055 |
| YNL052W | 37210 | COX5A | aerobic respiration | 252 | 0.924 | 4 | 16 | 0 | -0.001 | 0.038 |
| YLR011W | 31566 | LOT6 | biological_process unknown | 253 | 0.924 | 4 | 16 | 0 | -0.194 | 0.210 |
| YNL204C | 32008 | SPS18 | sporulation | 254 | 0.924 | 4 | 15 | 0 | -0.012 | 0.059 |
| YDR310C | 33669 | SUM1 | chromatin silencing at telomere | 255 | 0.924 | 4 | 16 | 0 | -0.073 | 0.048 |
| YBL005W | 33029 | PDR3 | regulation of transcription from I | 256 | 0.925 | 4 | 16 | 0 | -0.005 | 0.088 |
| YDR070C | 34005 | | biological_process unknown | 257 | 0.925 | 4 | 16 | 0 | -0.084 | 0.059 |
| YIL074C | 31467 | SER33 | serine family amino acid biosyn | 258 | 0.925 | 4 | 15 | 0 | -0.145 | 0.014 |
| YLR113W | 32724 | HOG1 | protein amino acid phosphoryla | 259 | 0.925 | 4 | 16 | 0 | -0.132 | 0.091 |

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|---|---|---|---|---|---|---|---|---|---|---|
| YJL179W | 31246 | PFD1 | protein folding* | 260 | 0.925 | 4 | 16 | 0 | 0.013 | 0.030 |
| YLR292C | 35202 | SEC72 | SRP-dependent cotranslational | 261 | 0.925 | 4 | 16 | 0 | -0.051 | 0.095 |
| YML102W | 36502 | CAC2 | DNA repair* | 262 | 0.925 | 4 | 12 | 0 | 0.007 | 0.089 |
| YDL119C | 33816 | | transport | 263 | 0.925 | 4 | 16 | 0 | -0.074 | 0.012 |
| YOR125C | 32381 | CAT5 | ubiquinone metabolism | 264 | 0.925 | 4 | 16 | 0 | -0.132 | 0.041 |
| YAL021C | 30387 | CCR4 | regulation of transcription from I | 265 | 0.925 | 4 | 8 | 0 | -0.046 | 0.006 |
| YNL298W | 31146 | CLA4 | protein amino acid phosphoryla | 266 | 0.926 | 4 | 16 | 0 | -0.077 | 0.050 |
| YHL038C | 30925 | CBP2 | Group I intron splicing | 267 | 0.926 | 4 | 16 | 0 | -0.129 | 0.034 |
| YCL030C | 33437 | HIS4 | histidine biosynthesis | 268 | 0.926 | 4 | 16 | 0 | -0.044 | 0.058 |
| YBR063C | 33200 | | biological_process unknown | 269 | 0.926 | 4 | 16 | 0 | -0.032 | 0.028 |
| YBR062C | 33199 | | biological_process unknown | 270 | 0.926 | 4 | 16 | 0 | -0.006 | 0.047 |
| YML033W | 30539 | | | 271 | 0.926 | 4 | 8 | 0 | 0.040 | 0.077 |
| YOR283W | 32539 | | biological_process unknown | 272 | 0.926 | 4 | 12 | 0 | -0.093 | 0.007 |
| YGL037C | 34405 | PNC1 | chromatin silencing at telomere | 273 | 0.927 | 4 | 16 | 0 | -0.079 | 0.053 |
| YOR135C | 32391 | | | 274 | 0.927 | 4 | 16 | 0 | -0.113 | 0.076 |
| YDR372C | 34208 | VPS74 | protein-vacuolar targeting | 275 | 0.927 | 4 | 15 | 0 | -0.156 | 0.038 |
| YAL055W | 30352 | PEX22 | protein-peroxisome targeting | 276 | 0.927 | 4 | 8 | 0 | -0.023 | 0.020 |
| YOR032C | 31808 | HMS1 | pseudohyphal growth | 277 | 0.927 | 4 | 16 | 0 | -0.112 | 0.177 |
| YGL021W | 34389 | ALK1 | mitosis | 278 | 0.927 | 4 | 16 | 0 | -0.022 | 0.052 |
| YBR069C | 33206 | TAT1 | amino acid transport | 279 | 0.927 | 4 | 16 | 0 | -0.015 | 0.033 |
| YDL065C | 33762 | PEX19 | peroxisome organization and bi | 280 | 0.927 | 4 | 16 | 0 | -0.010 | 0.025 |
| YJL155C | 31270 | FBP26 | gluconeogenesis | 281 | 0.927 | 4 | 16 | 0 | 0.024 | 0.032 |
| YER090W | 36395 | TRP2 | tryptophan biosynthesis | 282 | 0.927 | 4 | 16 | 0 | -0.060 | 0.049 |
| YMR294W | 30881 | JNM1 | mitotic anaphase B | 283 | 0.927 | 4 | 15 | 0 | -0.059 | 0.036 |
| YJR142W | 36936 | | biological_process unknown | 284 | 0.927 | 4 | 16 | 0 | 0.014 | 0.033 |
| YEL023C | 30264 | | biological_process unknown | 285 | 0.927 | 4 | 16 | 0 | -0.065 | 0.063 |
| YCR008W | 33488 | SAT4 | G1/S transition of mitotic cell cy | 286 | 0.927 | 4 | 16 | 0 | -0.007 | 0.031 |
| YDL128W | 33825 | VCX1 | calcium ion transport* | 287 | 0.927 | 4 | 8 | 0 | -0.059 | 0.012 |
| YCL046W | 33453 | | | 288 | 0.928 | 4 | 16 | 0 | -0.058 | 0.041 |
| YJR054W | 36852 | | biological_process unknown | 289 | 0.928 | 4 | 16 | 0 | -0.100 | 0.019 |
| YBL031W | 33057 | SHE1 | biological_process unknown | 290 | 0.928 | 4 | 16 | 0 | -0.101 | 0.043 |
| YNL063W | 33013 | | biological_process unknown | 291 | 0.928 | 4 | 16 | 0 | -0.013 | 0.041 |
| YKL072W | 34921 | STB6 | biological_process unknown | 292 | 0.928 | 4 | 16 | 0 | -0.097 | 0.054 |
| YKL221W | 35070 | MCH2 | transport | 293 | 0.928 | 4 | 13 | 1 | -0.207 | 0.137 |
| YDR051C | 33987 | | biological_process unknown | 294 | 0.928 | 4 | 15 | 0 | -0.029 | 0.060 |
| YGL231C | 34598 | | biological_process unknown | 295 | 0.928 | 4 | 8 | 0 | -0.079 | 0.005 |
| YKL029C | 34878 | MAE1 | pyruvate metabolism* | 296 | 0.928 | 4 | 16 | 0 | -0.030 | 0.055 |
| YJL110C | 31313 | GZF3 | negative regulation of transcript | 297 | 0.929 | 4 | 16 | 0 | -0.057 | 0.038 |
| YGL094C | 34461 | PAN2 | mRNA processing* | 298 | 0.929 | 4 | 12 | 0 | -0.044 | 0.041 |
| YDR290W | 33649 | SWS1 | biological_process unknown | 299 | 0.929 | 4 | 8 | 0 | -0.006 | 0.001 |
| YDL135C | 33833 | RDI1 | actin filament organization* | 300 | 0.929 | 4 | 16 | 0 | -0.092 | 0.052 |
| YDR067C | 34002 | | biological_process unknown | 301 | 0.929 | 4 | 15 | 0 | 0.005 | 0.039 |
| YJL095W | 31328 | BCK1 | protein amino acid phosphoryla | 302 | 0.929 | 4 | 16 | 0 | -0.025 | 0.036 |
| YDR142C | 34076 | PEX7 | peroxisome organization and bi | 303 | 0.929 | 4 | 15 | 0 | 0.058 | 0.052 |
| YKL217W | 35067 | JEN1 | lactate transport | 304 | 0.929 | 4 | 16 | 0 | -0.112 | 0.183 |
| YOR360C | 31657 | PDE2 | cAMP-mediated signaling | 305 | 0.929 | 4 | 12 | 0 | -0.124 | 0.084 |
| YMR306W | 36450 | FKS3 | biological_process unknown | 306 | 0.929 | 4 | 16 | 0 | -0.044 | 0.041 |
| YJL036W | 31386 | SNX4 | transport* | 307 | 0.930 | 4 | 16 | 0 | -0.041 | 0.044 |
| YPL079W | 32749 | RPL21B | protein biosynthesis | 308 | 0.930 | 4 | 15 | 0 | 0.028 | 0.036 |
| YBR263W | 33403 | SHM1 | one-carbon compound metaboli | 309 | 0.930 | 4 | 16 | 0 | -0.043 | 0.092 |
| YJR129C | 32607 | | biological_process unknown | 310 | 0.930 | 4 | 16 | 0 | -0.020 | 0.101 |
| YDL053C | 33750 | PBP4 | biological_process unknown | 311 | 0.930 | 4 | 16 | 0 | -0.036 | 0.048 |

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|---|---|---|---|---|---|---|---|---|---|---|
| YCL063W | 33470 | VAC17 | vacuole inheritance | 312 | 0.930 | 4 | 8 | 0 | -0.106 | 0.030 |
| YJR150C | 36940 | DAN1 | sterol transport | 313 | 0.930 | 4 | 16 | 0 | -0.016 | 0.043 |
| YOR279C | 32535 | RFM1 | transcriptional gene silencing | 314 | 0.930 | 4 | 8 | 0 | -0.099 | 0.067 |
| YNL077W | 32999 | APJ1 | biological_process unknown | 315 | 0.930 | 4 | 16 | 0 | -0.036 | 0.042 |
| YDR068W | 34003 | DOS2 | biological_process unknown | 316 | 0.931 | 4 | 16 | 0 | -0.029 | 0.048 |
| YCL001W | 33409 | RER1 | ER to Golgi transport | 317 | 0.931 | 4 | 16 | 0 | -0.027 | 0.050 |
| YDL049C | 33746 | KNH1 | beta-1,6 glucan biosynthesis | 318 | 0.931 | 4 | 16 | 0 | -0.066 | 0.027 |
| YIL023C | 31416 | | biological_process unknown | 319 | 0.931 | 4 | 16 | 0 | -0.090 | 0.060 |
| YPL257W | 31035 | | biological_process unknown | 320 | 0.931 | 4 | 16 | 0 | 0.023 | 0.021 |
| YJR120W | 36923 | | mitochondrion organization and | 321 | 0.931 | 4 | 16 | 0 | -0.090 | 0.043 |
| YDL131W | 33828 | LYS21 | lysine biosynthesis, aminoadipic | 322 | 0.931 | 4 | 16 | 0 | -0.007 | 0.048 |
| YDR077W | 34012 | SED1 | cell wall organization and bioge | 323 | 0.931 | 4 | 16 | 0 | 0.014 | 0.025 |
| YCL051W | 33458 | LRE1 | cell wall organization and bioge | 324 | 0.931 | 4 | 16 | 0 | -0.079 | 0.059 |
| YCL036W | 33443 | GFD2 | biological_process unknown | 325 | 0.931 | 4 | 16 | 0 | -0.082 | 0.039 |
| YGR068C | 34698 | | biological_process unknown | 326 | 0.931 | 4 | 16 | 0 | -0.092 | 0.045 |
| YDR094W | 34029 | | | 327 | 0.932 | 4 | 16 | 0 | -0.083 | 0.046 |
| YNL065W | 37213 | AQR1 | drug transport* | 328 | 0.932 | 4 | 16 | 0 | -0.021 | 0.053 |
| YOL002C | 31693 | PHO36 | biological_process unknown | 329 | 0.932 | 4 | 16 | 0 | 0.014 | 0.044 |
| YIL035C | 31428 | CKA1 | protein amino acid phosphorylat | 330 | 0.932 | 4 | 16 | 0 | 0.048 | 0.068 |
| YPL035C | 32794 | | | 331 | 0.932 | 4 | 15 | 0 | 0.029 | 0.059 |
| YBR093C | 33232 | PHO5 | phosphate metabolism* | 332 | 0.932 | 4 | 16 | 0 | -0.031 | 0.024 |
| YDL026W | 33722 | | | 333 | 0.932 | 4 | 16 | 0 | -0.074 | 0.037 |
| YKL023W | 34872 | | biological_process unknown | 334 | 0.932 | 4 | 16 | 0 | -0.098 | 0.039 |
| YBR200W | 33340 | BEM1 | establishment of cell polarity (se | 335 | 0.932 | 4 | 15 | 0 | 0.007 | 0.105 |
| YMR130W | 36571 | | biological_process unknown | 336 | 0.933 | 4 | 12 | 0 | -0.051 | 0.044 |
| YGL028C | 34396 | SCW11 | cytokinesis, completion of separ | 337 | 0.933 | 4 | 16 | 0 | -0.010 | 0.021 |
| YML124C | 36525 | TUB3 | mitotic chromosome segregatio | 338 | 0.933 | 4 | 16 | 0 | -0.137 | 0.048 |
| YDR317W | 33676 | | biological_process unknown | 339 | 0.933 | 4 | 16 | 0 | -0.073 | 0.024 |
| YIL112W | 32271 | HOS4 | histone deacetylation* | 340 | 0.933 | 4 | 16 | 0 | -0.163 | 0.031 |
| YIL001W | 31393 | | biological_process unknown | 341 | 0.933 | 4 | 16 | 0 | -0.011 | 0.058 |
| YJL193W | 31232 | | biological_process unknown | 342 | 0.933 | 4 | 16 | 0 | -0.040 | 0.035 |
| YBR057C | 33194 | MUM2 | premeiotic DNA synthesis | 343 | 0.934 | 4 | 12 | 0 | -0.007 | 0.032 |
| YAL061W | 30346 | | biological_process unknown | 344 | 0.934 | 4 | 8 | 0 | -0.044 | 0.005 |
| YCL042W | 33449 | | biological_process unknown | 345 | 0.934 | 4 | 8 | 0 | -0.106 | 0.025 |
| YDR494W | 34328 | RSM28 | biological_process unknown | 346 | 0.934 | 4 | 16 | 0 | -0.117 | 0.143 |
| YNL198C | 32014 | | | 347 | 0.934 | 4 | 16 | 0 | -0.020 | 0.049 |
| YNL089C | 37378 | | | 348 | 0.934 | 4 | 16 | 0 | -0.039 | 0.027 |
| YCR014C | 33494 | POL4 | double-strand break repair* | 349 | 0.934 | 4 | 16 | 0 | -0.087 | 0.012 |
| YML053C | 30518 | | biological_process unknown | 350 | 0.935 | 4 | 8 | 0 | -0.018 | 0.027 |
| YPL145C | 32107 | KES1 | vesicle-mediated transport* | 351 | 0.935 | 4 | 16 | 0 | -0.033 | 0.054 |
| YLR255C | 35164 | | | 352 | 0.935 | 4 | 16 | 0 | -0.056 | 0.016 |
| YGL115W | 34482 | SNF4 | regulation of transcription from I | 353 | 0.935 | 4 | 16 | 0 | 0.024 | 0.040 |
| YDL034W | 33730 | | | 354 | 0.935 | 4 | 16 | 0 | -0.026 | 0.029 |
| YKL167C | 35017 | MRP49 | protein biosynthesis | 355 | 0.935 | 4 | 16 | 0 | -0.035 | 0.042 |
| YAL058W | 30349 | CNE1 | ER-associated protein catabolis | 356 | 0.935 | 4 | 8 | 0 | 0.005 | 0.021 |
| YNL144C | 32932 | | biological_process unknown | 357 | 0.935 | 4 | 16 | 0 | 0.046 | 0.014 |
| YNR040W | 35415 | | biological_process unknown | 358 | 0.935 | 4 | 16 | 0 | -0.074 | 0.028 |
| YMR245W | 30831 | | | 359 | 0.935 | 4 | 12 | 0 | 0.043 | 0.042 |
| YJR047C | 36845 | ANB1 | translational initiation | 360 | 0.935 | 4 | 8 | 0 | -0.043 | 0.048 |
| YBL104C | 33132 | | biological_process unknown | 361 | 0.935 | 4 | 16 | 0 | -0.022 | 0.034 |
| YMR007W | 30582 | | | 362 | 0.935 | 4 | 8 | 0 | 0.053 | 0.093 |
| YNL211C | 32001 | | biological_process unknown | 363 | 0.936 | 4 | 16 | 0 | -0.019 | 0.061 |

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|---|---|---|---|---|---|---|---|---|---|---|
| YPL132W | 36479 | COX11 | aerobic respiration | 364 | 0.936 | 4 | 16 | 0 | -0.140 | 0.085 |
| YJL073W | 31350 | JEM1 | protein folding* | 365 | 0.936 | 4 | 16 | 0 | 0.004 | 0.033 |
| YJL053W | 31370 | PEP8 | protein-Golgi retention* | 366 | 0.936 | 4 | 16 | 0 | -0.018 | 0.061 |
| YCL069W | 33476 | | biological_process unknown | 367 | 0.936 | 4 | 16 | 0 | -0.040 | 0.018 |
| YJR096W | 36908 | | arabinose metabolism* | 368 | 0.936 | 4 | 16 | 0 | -0.084 | 0.016 |
| YBR043C | 33180 | AQR2 | biological_process unknown | 369 | 0.936 | 4 | 16 | 0 | 0.014 | 0.045 |
| YOR031W | 31807 | CRS5 | response to metal ion | 370 | 0.936 | 4 | 16 | 0 | -0.051 | 0.132 |
| YDL071C | 33768 | | | 371 | 0.936 | 4 | 16 | 0 | -0.017 | 0.021 |
| YOR024W | 31800 | | | 372 | 0.936 | 4 | 16 | 0 | -0.008 | 0.059 |
| YGR142W | 34772 | BTN2 | intracellular protein transport* | 373 | 0.936 | 4 | 16 | 0 | -0.028 | 0.032 |
| YGR217W | 34847 | CCH1 | calcium ion transport | 374 | 0.936 | 4 | 9 | 1 | -0.096 | 0.116 |
| YDL054C | 33751 | MCH1 | transport | 375 | 0.936 | 4 | 16 | 0 | -0.039 | 0.040 |
| YJL153C | 31272 | INO1 | myo-inositol metabolism | 376 | 0.937 | 4 | 8 | 0 | -0.005 | 0.021 |
| YJR108W | 32586 | ABM1 | biological_process unknown | 377 | 0.937 | 4 | 15 | 0 | -0.031 | 0.077 |
| YKL208W | 35058 | CBT1 | mRNA processing* | 378 | 0.937 | 4 | 14 | 0 | -0.142 | 0.052 |
| YBR036C | 33173 | CSG2 | calcium ion homeostasis | 379 | 0.937 | 4 | 16 | 0 | -0.030 | 0.030 |
| YCL010C | 33418 | SGF29 | histone acetylation | 380 | 0.937 | 4 | 16 | 0 | -0.076 | 0.021 |
| YOL116W | 36266 | MSN1 | hyperosmotic response | 381 | 0.937 | 4 | 15 | 0 | -0.092 | 0.054 |
| YJL105W | 37099 | SET4 | biological_process unknown | 382 | 0.937 | 4 | 16 | 0 | -0.099 | 0.032 |
| YOR214C | 32470 | | biological_process unknown | 383 | 0.937 | 4 | 16 | 0 | -0.053 | 0.053 |
| YKL105C | 34955 | | biological_process unknown | 384 | 0.937 | 4 | 16 | 0 | -0.142 | 0.029 |
| YDR520C | 34354 | | biological_process unknown | 385 | 0.937 | 4 | 16 | 0 | 0.037 | 0.106 |
| YNR020C | 35395 | | biological_process unknown | 386 | 0.937 | 4 | 16 | 0 | -0.095 | 0.092 |
| YCR049C | 35773 | | | 387 | 0.937 | 4 | 16 | 0 | -0.071 | 0.044 |
| YML003W | 30573 | | biological_process unknown | 388 | 0.937 | 4 | 8 | 0 | 0.058 | 0.072 |
| YGR201C | 36590 | | biological_process unknown | 389 | 0.937 | 4 | 16 | 0 | -0.059 | 0.039 |
| YDR483W | 34317 | KRE2 | O-linked glycosylation* | 390 | 0.938 | 4 | 16 | 0 | -0.110 | 0.065 |
| YJR092W | 32569 | BUD4 | bud site selection* | 391 | 0.938 | 4 | 16 | 0 | -0.112 | 0.033 |
| YMR273C | 30859 | ZDS1 | establishment of cell polarity (se | 392 | 0.938 | 4 | 16 | 0 | -0.028 | 0.056 |
| YDR126W | 34060 | SWF1 | biological_process unknown | 393 | 0.938 | 4 | 8 | 0 | -0.241 | 0.065 |
| YCL022C | 36874 | | | 394 | 0.938 | 4 | 16 | 0 | -0.047 | 0.040 |
| YJL107C | 31316 | | biological_process unknown | 395 | 0.938 | 4 | 16 | 0 | -0.035 | 0.051 |
| YPR124W | 35539 | CTR1 | protein biosynthesis* | 396 | 0.938 | 4 | 15 | 0 | -0.025 | 0.034 |
| YKL150W | 35000 | MCR1 | response to oxidative stress* | 397 | 0.938 | 4 | 16 | 0 | 0.015 | 0.054 |
| YML050W | 30521 | | biological_process unknown | 398 | 0.938 | 3 | 6 | 0 | | |
| YGR225W | 35878 | AMA1 | sporulation (sensu Saccharomy | 399 | 0.938 | 4 | 8 | 0 | -0.119 | 0.007 |
| YAL005C | 30403 | SSA1 | protein folding* | 400 | 0.938 | 4 | 8 | 0 | 0.002 | 0.005 |
| YOR144C | 32400 | ELG1 | negative regulation of DNA tran | 401 | 0.938 | 4 | 16 | 0 | -0.058 | 0.014 |
| YKR018C | 35089 | | biological_process unknown | 402 | 0.938 | 4 | 16 | 0 | -0.087 | 0.050 |
| YPL261C | 31032 | | | 403 | 0.939 | 4 | 16 | 0 | -0.082 | 0.021 |
| YDR162C | 33520 | NBP2 | biological_process unknown | 404 | 0.939 | 3 | 9 | 0 | | |
| YMR166C | 30749 | | transport | 405 | 0.939 | 4 | 8 | 0 | -0.063 | 0.003 |
| YGR184C | 34814 | UBR1 | protein monoubiquitination* | 406 | 0.939 | 4 | 16 | 0 | -0.087 | 0.053 |
| YMR037C | 37117 | MSN2 | response to stress* | 407 | 0.939 | 4 | 16 | 0 | -0.089 | 0.014 |
| YCL025C | 33432 | AGP1 | amino acid transport | 408 | 0.939 | 4 | 14 | 0 | -0.034 | 0.008 |
| YMR011W | 30586 | HXT2 | hexose transport | 409 | 0.939 | 4 | 8 | 0 | 0.055 | 0.049 |
| YNL300W | 36470 | | biological_process unknown | 410 | 0.939 | 4 | 12 | 0 | -0.084 | 0.045 |
| YIL116W | 32275 | HIS5 | histidine biosynthesis | 411 | 0.939 | 4 | 14 | 0 | -0.054 | 0.086 |
| YPR146C | 35561 | | | 412 | 0.939 | 4 | 8 | 0 | -0.101 | 0.042 |
| YOL068C | 31760 | HST1 | transcriptional gene silencing | 413 | 0.939 | 4 | 16 | 0 | 0.021 | 0.034 |
| YOR352W | 31649 | | biological_process unknown | 414 | 0.939 | 4 | 16 | 0 | -0.047 | 0.127 |
| YDR358W | 34195 | GGA1 | Golgi to vacuole transport | 415 | 0.939 | 4 | 15 | 0 | -0.039 | 0.102 |

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|---|---|---|---|---|---|---|---|---|---|---|
| YLR453C | 36056 | RIF2 | telomerase-dependent telomere | 416 | 0.939 | 4 | 16 | 0 | -0.095 | 0.053 |
| YNL314W | 31130 | DAL82 | transcription initiation from Pol I | 417 | 0.939 | 4 | 14 | 0 | -0.039 | 0.041 |
| YLL029W | 31517 | | biological_process unknown | 418 | 0.939 | 4 | 8 | 0 | -0.092 | 0.054 |
| YPR028W | 35447 | YOP1 | membrane organization and bio | 419 | 0.939 | 4 | 16 | 0 | -0.086 | 0.039 |
| YCL023C | 33430 | | | 420 | 0.940 | 4 | 16 | 0 | -0.024 | 0.064 |
| YMR012W | 30587 | CLU1 | translational initiation* | 421 | 0.940 | 4 | 8 | 0 | 0.112 | 0.100 |
| YNL097C | 37234 | PHO23 | chromatin modification | 422 | 0.940 | 4 | 15 | 0 | 0.030 | 0.013 |
| YOR018W | 31794 | ROD1 | response to drug | 423 | 0.940 | 4 | 16 | 0 | -0.002 | 0.017 |
| YBR104W | 33243 | YMC2 | transport | 424 | 0.940 | 4 | 16 | 0 | 0.030 | 0.013 |
| YNL305C | 31139 | | biological_process unknown | 425 | 0.940 | 4 | 8 | 0 | -0.025 | 0.015 |
| YNL111C | 37382 | CYB5 | sterol biosynthesis | 426 | 0.940 | 4 | 16 | 0 | -0.013 | 0.072 |
| YBR283C | 35731 | SSH1 | cotranslational membrane targe | 427 | 0.940 | 4 | 11 | 0 | -0.110 | 0.070 |
| YCL007C | 33415 | CWH36 | cell wall organization and bioge | 428 | 0.940 | 3 | 6 | 1 | | |
| YER007W | 30329 | PAC2 | post-chaperonin tubulin folding | 429 | 0.940 | 4 | 16 | 0 | -0.003 | 0.022 |
| YNL057W | 33017 | | | 430 | 0.940 | 4 | 16 | 0 | 0.022 | 0.035 |
| YJR003C | 37308 | | biological_process unknown | 431 | 0.940 | 4 | 16 | 0 | -0.037 | 0.041 |
| YIL045W | 31438 | PIG2 | biological_process unknown | 432 | 0.940 | 4 | 16 | 0 | -0.038 | 0.010 |
| YDR505C | 34339 | PSP1 | biological_process unknown | 433 | 0.940 | 4 | 16 | 0 | -0.053 | 0.052 |
| YCR051W | 35775 | | biological_process unknown | 434 | 0.940 | 4 | 16 | 0 | -0.084 | 0.038 |
| YKR064W | 35135 | | biological_process unknown | 435 | 0.940 | 4 | 16 | 0 | -0.039 | 0.044 |
| YKL148C | 34998 | SDH1 | tricarboxylic acid cycle* | 436 | 0.940 | 4 | 15 | 0 | -0.024 | 0.057 |
| YJR154W | 32632 | | biological_process unknown | 437 | 0.940 | 4 | 16 | 0 | 0.046 | 0.089 |
| YMR152W | 30733 | YIM1 | mitochondrial processing | 438 | 0.940 | 4 | 16 | 0 | -0.009 | 0.062 |
| YDL236W | 33933 | PHO13 | protein amino acid dephosphory | 439 | 0.940 | 4 | 16 | 0 | -0.003 | 0.050 |
| YDR144C | 34078 | MKC7 | proteolysis and peptidolysis | 440 | 0.940 | 4 | 16 | 0 | -0.050 | 0.045 |
| YAL022C | 30386 | FUN26 | nucleoside transport | 441 | 0.941 | 4 | 8 | 0 | -0.035 | 0.049 |
| YJL166W | 31259 | QCR8 | aerobic respiration* | 442 | 0.941 | 4 | 16 | 0 | -0.049 | 0.050 |
| YNL255C | 31189 | GIS2 | intracellular signaling cascade | 443 | 0.941 | 4 | 16 | 0 | -0.012 | 0.042 |
| YIL157C | 32316 | | biological_process unknown | 444 | 0.941 | 4 | 16 | 0 | -0.023 | 0.054 |
| YCR006C | 33486 | | | 445 | 0.941 | 4 | 16 | 0 | -0.046 | 0.079 |
| YNR041C | 35416 | COQ2 | ubiquinone metabolism | 446 | 0.941 | 4 | 16 | 0 | -0.109 | 0.017 |
| YDR488C | 34322 | PAC11 | microtubule-based process | 447 | 0.941 | 4 | 16 | 0 | -0.022 | 0.056 |
| YLR438W | 36042 | CAR2 | arginine catabolism | 448 | 0.941 | 4 | 16 | 0 | -0.068 | 0.023 |
| YNL218W | 31994 | MGS1 | DNA replication* | 449 | 0.941 | 4 | 8 | 0 | -0.020 | 0.013 |
| YBR119W | 33258 | MUD1 | nuclear mRNA splicing, via splic | 450 | 0.941 | 4 | 11 | 0 | -0.046 | 0.041 |
| YDR389W | 34225 | SAC7 | small GTPase mediated signal t | 451 | 0.941 | 4 | 16 | 0 | -0.091 | 0.045 |
| YNL074C | 37221 | MLF3 | response to drug | 452 | 0.941 | 4 | 12 | 0 | -0.032 | 0.012 |
| YIL028W | 31421 | | | 453 | 0.941 | 4 | 12 | 0 | -0.136 | 0.083 |
| YDR435C | 34271 | PPM1 | C-terminal protein amino acid m | 454 | 0.941 | 4 | 11 | 0 | 0.058 | 0.000 |
| YDR399W | 34235 | HPT1 | purine nucleotide biosynthesis | 455 | 0.941 | 4 | 15 | 0 | -0.024 | 0.090 |
| YDR015C | 33954 | | | 456 | 0.941 | 4 | 16 | 0 | -0.153 | 0.065 |
| YOR187W | 32443 | TUF1 | translational elongation | 457 | 0.941 | 3 | 6 | 0 | | |
| YMR126C | 36567 | DLT1 | biological_process unknown | 458 | 0.941 | 4 | 16 | 0 | -0.125 | 0.047 |
| YLR303W | 35211 | MET17 | methionine metabolism | 459 | 0.942 | 4 | 16 | 0 | -0.037 | 0.036 |
| YDL050C | 33747 | | | 460 | 0.942 | 4 | 16 | 0 | -0.050 | 0.024 |
| YML081C | 36068 | ATP18 | ATP synthesis coupled proton tr | 461 | 0.942 | 4 | 16 | 0 | -0.058 | 0.051 |
| YHL026C | 30937 | | biological_process unknown | 462 | 0.942 | 4 | 16 | 0 | -0.085 | 0.057 |
| YPL234C | 31058 | TFP3 | vacuolar acidification | 463 | 0.942 | 4 | 15 | 0 | 0.082 | 0.007 |
| YGR282C | 35934 | BGL2 | cell wall organization and bioge | 464 | 0.942 | 4 | 16 | 0 | 0.012 | 0.030 |
| YKL051W | 34900 | SFK1 | actin cytoskeleton organization | 465 | 0.942 | 4 | 16 | 0 | -0.060 | 0.064 |
| YML019W | 30554 | OST6 | protein complex assembly* | 466 | 0.942 | 4 | 8 | 0 | -0.010 | 0.083 |
| YJL150W | 31275 | | | 467 | 0.942 | 4 | 8 | 0 | -0.002 | 0.127 |

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|---|---|---|---|---|---|---|---|---|---|---|
| YMR304C | 30893 | | | 468 | 0.942 | 4 | 16 | 0 | 0.012 | 0.076 |
| YOL004W | 31695 | SIN3 | regulation of transcription from I | 469 | 0.942 | 4 | 11 | 0 | 0.044 | 0.108 |
| YFR015C | 35694 | GSY1 | glycogen metabolism | 470 | 0.942 | 4 | 16 | 0 | -0.070 | 0.038 |
| YKL011C | 34860 | CCE1 | DNA recombination | 471 | 0.942 | 4 | 16 | 0 | -0.042 | 0.020 |
| YJL208C | 31217 | NUC1 | DNA recombination* | 472 | 0.942 | 4 | 16 | 0 | 0.005 | 0.029 |
| YNR008W | 35383 | LRO1 | triacylglycerol biosynthesis* | 473 | 0.942 | 4 | 16 | 0 | -0.065 | 0.010 |
| YKL041W | 34890 | VPS24 | late endosome to vacuole trans | 474 | 0.942 | 4 | 16 | 0 | -0.021 | 0.055 |
| YDL129W | 33826 | | biological_process unknown | 475 | 0.942 | 4 | 16 | 0 | -0.054 | 0.030 |
| YKL065C | 34914 | YET1 | biological_process unknown | 476 | 0.943 | 4 | 15 | 0 | -0.163 | 0.030 |
| YBR046C | 33183 | ZTA1 | biological_process unknown | 477 | 0.943 | 4 | 16 | 0 | -0.049 | 0.035 |
| YBL011W | 33037 | SCT1 | phospholipid biosynthesis | 478 | 0.943 | 4 | 16 | 0 | -0.018 | 0.011 |
| YBR264C | 33404 | YPT10 | Golgi organization and biogene | 479 | 0.943 | 4 | 16 | 0 | -0.009 | 0.036 |
| YNL196C | 32016 | | biological_process unknown | 480 | 0.943 | 4 | 16 | 0 | 0.034 | 0.067 |
| YGR035C | 34665 | | biological_process unknown | 481 | 0.943 | 4 | 16 | 0 | -0.049 | 0.047 |
| YJL154C | 31271 | VPS35 | protein-Golgi retention* | 482 | 0.943 | 4 | 16 | 0 | -0.065 | 0.038 |
| YPL165C | 32087 | SET6 | biological_process unknown | 483 | 0.943 | 4 | 16 | 0 | -0.075 | 0.043 |
| YJL055W | 31368 | | biological_process unknown | 484 | 0.943 | 4 | 16 | 0 | -0.054 | 0.023 |
| YNL203C | 32010 | | | 485 | 0.944 | 4 | 8 | 0 | -0.049 | 0.050 |
| YMR070W | 36203 | MOT3 | transcription | 486 | 0.944 | 4 | 16 | 0 | -0.084 | 0.081 |
| YBR033W | 33170 | EDS1 | biological_process unknown | 487 | 0.944 | 4 | 16 | 0 | -0.035 | 0.027 |
| YIR030C | 37304 | DCG1 | nitrogen metabolism | 488 | 0.944 | 4 | 16 | 0 | -0.075 | 0.053 |
| YOR253W | 32509 | NAT5 | protein amino acid acetylation | 489 | 0.944 | 4 | 8 | 0 | -0.025 | 0.019 |
| YPL034W | 37341 | | biological_process unknown | 490 | 0.944 | 4 | 16 | 0 | -0.001 | 0.041 |
| YNL115C | 37241 | | biological_process unknown | 491 | 0.944 | 4 | 16 | 0 | -0.086 | 0.028 |
| YKL175W | 35025 | ZRT3 | zinc ion homeostasis* | 492 | 0.944 | 4 | 16 | 0 | -0.068 | 0.054 |
| YOR237W | 32493 | HES1 | steroid biosynthesis | 493 | 0.944 | 4 | 8 | 0 | -0.086 | 0.001 |
| YDR157W | 33515 | | | 494 | 0.944 | 4 | 12 | 0 | -0.018 | 0.040 |
| YGR066C | 34696 | | biological_process unknown | 495 | 0.944 | 4 | 16 | 0 | -0.109 | 0.078 |
| YPR065W | 35484 | ROX1 | negative regulation of transcript | 496 | 0.944 | 4 | 16 | 0 | -0.096 | 0.058 |
| YHR103W | 31931 | SBE22 | cell wall organization and bioge | 497 | 0.944 | 4 | 16 | 0 | -0.061 | 0.041 |
| YBR100W | 33239 | | | 498 | 0.944 | 4 | 16 | 0 | 0.022 | 0.068 |
| YJR078W | 32556 | BNA2 | nicotinamide adenine dinucleoti | 499 | 0.944 | 4 | 16 | 0 | -0.040 | 0.029 |
| YOR333C | 31630 | | | 500 | 0.944 | 4 | 16 | 0 | 0.091 | 0.068 |
| YAL007C | 30401 | ERP2 | ER to Golgi transport | 501 | 0.944 | 4 | 8 | 0 | -0.020 | 0.033 |
| YBR289W | 37175 | SNF5 | chromatin modeling | 502 | 0.944 | 3 | 9 | 2 | | |
| YBR187W | 33327 | | biological_process unknown | 503 | 0.945 | 4 | 16 | 0 | -0.038 | 0.036 |
| YCR032W | 37181 | BPH1 | response to pH | 504 | 0.945 | 4 | 16 | 0 | 0.029 | 0.040 |
| YJR140C | 36934 | HIR3 | G1/S-specific transcription in mi | 505 | 0.945 | 4 | 16 | 0 | 0.032 | 0.025 |
| YOR208W | 32464 | PTP2 | signal transduction during conju | 506 | 0.945 | 4 | 16 | 0 | -0.019 | 0.073 |
| YDL002C | 33698 | NHP10 | biological_process unknown | 507 | 0.945 | 4 | 16 | 0 | 0.026 | 0.031 |
| YIL131C | 32290 | FKH1 | pseudohyphal growth* | 508 | 0.945 | 4 | 16 | 0 | -0.061 | 0.036 |
| YBL028C | 33054 | | biological_process unknown | 509 | 0.945 | 4 | 16 | 0 | -0.028 | 0.039 |
| YLR375W | 35284 | STP3 | biological_process unknown | 510 | 0.945 | 4 | 15 | 0 | -0.022 | 0.032 |
| YMR305C | 30894 | SCW10 | conjugation with cellular fusion | 511 | 0.945 | 4 | 15 | 0 | 0.010 | 0.043 |
| YKL136W | 34986 | | | 512 | 0.945 | 4 | 16 | 0 | -0.113 | 0.070 |
| YJL112W | 31311 | MDV1 | mitochondrial genome maintena | 513 | 0.945 | 4 | 16 | 0 | -0.117 | 0.047 |
| YMR009W | 30584 | | biological_process unknown | 514 | 0.945 | 4 | 8 | 0 | 0.036 | 0.036 |
| YER113C | 36111 | | biological_process unknown | 515 | 0.945 | 4 | 16 | 0 | -0.095 | 0.014 |
| YGR077C | 34707 | PEX8 | peroxisome organization and bi | 516 | 0.945 | 4 | 16 | 0 | -0.055 | 0.092 |
| YBR040W | 33177 | FIG1 | cellular morphogenesis during c | 517 | 0.945 | 4 | 16 | 0 | 0.000 | 0.032 |
| YDR200C | 33559 | VPS64 | protein-vacuolar targeting* | 518 | 0.945 | 4 | 8 | 0 | -0.009 | 0.030 |
| YGL086W | 34453 | MAD1 | mitotic spindle checkpoint* | 519 | 0.945 | 4 | 15 | 0 | -0.115 | 0.069 |

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|---|---|---|---|---|---|---|---|---|---|
| YCL032W | 33439 | STE50 | signal transduction during conju | 520 | 0.945 | 4 | 8 | 0 | -0.075 | 0.099 |
| YOR021C | 31797 | | biological_process unknown | 521 | 0.945 | 4 | 16 | 0 | 0.046 | 0.074 |
| YHR006W | 36603 | STP2 | positive regulation of transcripti | 522 | 0.945 | 4 | 16 | 0 | -0.078 | 0.039 |
| YMR026C | 30601 | PEX12 | peroxisome organization and bi | 523 | 0.946 | 4 | 8 | 0 | 0.057 | 0.067 |
| YOR007C | 31783 | SGT2 | biological_process unknown | 524 | 0.946 | 4 | 8 | 0 | 0.033 | 0.027 |
| YDR421W | 34257 | ARO80 | positive regulation of transcripti | 525 | 0.946 | 4 | 16 | 0 | -0.057 | 0.025 |
| YDR008C | 33948 | | | 526 | 0.946 | 4 | 16 | 0 | -0.041 | 0.065 |
| YGR258C | 37289 | RAD2 | nucleotide-excision repair, DNA | 527 | 0.946 | 4 | 16 | 0 | -0.052 | 0.004 |
| YCL024W | 33431 | KCC4 | protein amino acid phosphoryla | 528 | 0.946 | 4 | 16 | 0 | -0.023 | 0.017 |
| YLR405W | 35314 | DUS4 | tRNA modification | 529 | 0.946 | 4 | 16 | 0 | -0.080 | 0.054 |
| YPR071W | 35490 | | biological_process unknown | 530 | 0.946 | 4 | 16 | 0 | -0.070 | 0.030 |
| YDR474C | 34308 | | biological_process unknown | 531 | 0.946 | 4 | 8 | 0 | -0.092 | 0.082 |
| YNR050C | 36077 | LYS9 | lysine biosynthesis, aminoadipi | 532 | 0.946 | 4 | 15 | 0 | -0.015 | 0.014 |
| YBR174C | 33314 | | | 533 | 0.946 | 4 | 16 | 0 | -0.060 | 0.104 |
| YHL044W | 30919 | | biological_process unknown | 534 | 0.946 | 4 | 16 | 0 | -0.130 | 0.036 |
| YDL243C | 33940 | AAD4 | aldehyde metabolism | 535 | 0.946 | 4 | 16 | 0 | -0.015 | 0.134 |
| YDL155W | 33853 | CLB3 | G1/S transition of mitotic cell cy | 536 | 0.946 | 4 | 16 | 0 | -0.034 | 0.043 |
| YNL121C | 37244 | TOM70 | mitochondrial translocation | 537 | 0.946 | 4 | 16 | 0 | -0.072 | 0.074 |
| YPL167C | 32085 | REV3 | DNA repair* | 538 | 0.946 | 4 | 16 | 0 | -0.036 | 0.029 |
| YCR037C | 35766 | PHO87 | phosphate transport | 539 | 0.946 | 4 | 16 | 0 | -0.087 | 0.042 |
| YJL134W | 31291 | LCB3 | sphingolipid biosynthesis* | 540 | 0.946 | 4 | 16 | 0 | -0.033 | 0.051 |
| YPR039W | 35458 | | | 541 | 0.946 | 4 | 16 | 0 | -0.012 | 0.062 |
| YMR157C | 30739 | | biological_process unknown | 542 | 0.947 | 4 | 16 | 0 | -0.043 | 0.026 |
| YMR031C | 30607 | | biological_process unknown | 543 | 0.947 | 4 | 8 | 0 | 0.070 | 0.080 |
| YCL027W | 33434 | FUS1 | conjugation with cellular fusion | 544 | 0.947 | 4 | 16 | 0 | -0.065 | 0.012 |
| YBR281C | 35729 | | biological_process unknown | 545 | 0.947 | 4 | 16 | 0 | -0.048 | 0.043 |
| YGL015C | 34383 | | biological_process unknown | 546 | 0.947 | 4 | 12 | 0 | -0.012 | 0.087 |
| YDR104C | 34039 | SPO71 | spore wall assembly (sensu Sa | 547 | 0.947 | 4 | 16 | 0 | -0.074 | 0.025 |
| YDL088C | 33785 | ASM4 | mRNA-nucleus export* | 548 | 0.947 | 4 | 16 | 0 | -0.021 | 0.081 |
| YCL039W | 33446 | GID7 | biological_process unknown* | 549 | 0.947 | 4 | 16 | 0 | -0.051 | 0.012 |
| YPR120C | 35535 | CLB5 | G1/S transition of mitotic cell cy | 550 | 0.947 | 4 | 16 | 0 | -0.088 | 0.064 |
| YOR334W | 31631 | MRS2 | mitochondrial magnesium ion tr | 551 | 0.947 | 4 | 16 | 0 | -0.040 | 0.034 |
| YDR029W | 33968 | | | 552 | 0.947 | 4 | 16 | 0 | -0.016 | 0.067 |
| YEL006W | 30246 | | transport | 553 | 0.947 | 4 | 8 | 0 | -0.006 | 0.009 |
| YLR280C | 35189 | | | 554 | 0.947 | 4 | 16 | 0 | -0.032 | 0.017 |
| YJL128C | 37101 | PBS2 | protein amino acid phosphoryla | 555 | 0.947 | 4 | 16 | 0 | -0.088 | 0.012 |
| YPL147W | 32105 | PXA1 | fatty acid transport | 556 | 0.947 | 4 | 16 | 0 | -0.072 | 0.019 |
| YMR019W | 30594 | STB4 | biological_process unknown | 557 | 0.947 | 4 | 8 | 0 | 0.029 | 0.104 |
| YOL027C | 31718 | MDM38 | mitochondrion organization and | 558 | 0.947 | 4 | 16 | 0 | -0.121 | 0.014 |
| YBR261C | 33401 | | biological_process unknown | 559 | 0.947 | 4 | 16 | 0 | -0.029 | 0.043 |
| YHR060W | 31888 | VMA22 | protein complex assembly* | 560 | 0.947 | 3 | 6 | 0 | | |
| YNL205C | 32007 | | | 561 | 0.947 | 4 | 15 | 0 | -0.024 | 0.052 |
| YGR096W | 34726 | TPC1 | transport | 562 | 0.948 | 4 | 8 | 0 | -0.040 | 0.052 |
| YER041W | 30174 | YEN1 | biological_process unknown | 563 | 0.948 | 4 | 16 | 0 | -0.076 | 0.034 |
| YLR006C | 31561 | SSK1 | osmosensory signaling pathwa | 564 | 0.948 | 4 | 16 | 0 | -0.137 | 0.083 |
| YIL015W | 31408 | BAR1 | protein catabolism | 565 | 0.948 | 4 | 16 | 0 | 0.013 | 0.013 |
| YBL001C | 33025 | ECM15 | cell wall organization and bioge | 566 | 0.948 | 4 | 16 | 0 | -0.001 | 0.036 |
| YMR086C | 36220 | | | 567 | 0.948 | 4 | 16 | 0 | -0.046 | 0.032 |
| YLR096W | 32707 | KIN2 | biological_process unknown | 568 | 0.948 | 4 | 16 | 0 | 0.057 | 0.116 |
| YDL072C | 33769 | | biological_process unknown | 569 | 0.948 | 4 | 16 | 0 | -0.019 | 0.027 |
| YDR143C | 34077 | SAN1 | establishment and/or maintenar | 570 | 0.948 | 4 | 16 | 0 | -0.010 | 0.070 |
| YOR337W | 31634 | TEA1 | transcription | 571 | 0.948 | 4 | 16 | 0 | -0.025 | 0.031 |

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|---|---|---|---|---|---|---|---|---|---|---|
| YOR012W | 31788 | | biological_process unknown | 572 | 0.948 | 4 | 16 | 0 | 0.001 | 0.052 |
| YLR351C | 35260 | NIT3 | biological_process unknown | 573 | 0.948 | 4 | 16 | 0 | -0.046 | 0.033 |
| YJL116C | 31309 | NCA3 | mitochondrion organization and | 574 | 0.948 | 4 | 16 | 0 | -0.036 | 0.030 |
| YFR056C | 35870 | | | 575 | 0.948 | 4 | 16 | 0 | -0.122 | 0.025 |
| YCL064C | 33471 | CHA1 | threonine catabolism* | 576 | 0.948 | 4 | 16 | 0 | -0.093 | 0.074 |
| YPR006C | 35425 | ICL2 | propionate metabolism* | 577 | 0.948 | 4 | 16 | 0 | -0.132 | 0.031 |
| YPR170C | 35585 | | | 578 | 0.948 | 4 | 15 | 0 | -0.159 | 0.051 |
| YAR029W | 30421 | | biological_process unknown | 579 | 0.948 | 4 | 8 | 0 | 0.002 | 0.008 |
| YAL028W | 30380 | FRT2 | biological_process unknown | 580 | 0.948 | 4 | 8 | 0 | -0.012 | 0.037 |
| YGL168W | 34535 | HUR1 | biological_process unknown | 581 | 0.948 | 3 | 6 | 0 | | |
| YNL066W | 37214 | SUN4 | mitochondrion organization and | 582 | 0.948 | 4 | 16 | 0 | -0.056 | 0.051 |
| YDR340W | 34179 | | | 583 | 0.948 | 4 | 14 | 0 | -0.124 | 0.075 |
| YKR058W | 35129 | GLG1 | glycogen biosynthesis | 584 | 0.948 | 4 | 16 | 0 | -0.034 | 0.043 |
| YDR128W | 34062 | | biological_process unknown | 585 | 0.948 | 4 | 16 | 0 | -0.064 | 0.051 |
| YJL132W | 31293 | | biological_process unknown | 586 | 0.948 | 4 | 16 | 0 | -0.037 | 0.032 |
| YKR106W | 37312 | | transport | 587 | 0.949 | 4 | 16 | 0 | -0.091 | 0.062 |
| YDL012C | 33708 | | biological_process unknown | 588 | 0.949 | 4 | 16 | 0 | -0.055 | 0.027 |
| YMR171C | 36445 | | biological_process unknown | 589 | 0.949 | 4 | 16 | 0 | -0.052 | 0.037 |
| YBR034C | 33171 | HMT1 | mRNA-nucleus export* | 590 | 0.949 | 4 | 16 | 0 | 0.022 | 0.056 |
| YCR017C | 33497 | CWH43 | cell wall organization and bioge | 591 | 0.949 | 4 | 16 | 0 | -0.053 | 0.017 |
| YDR517W | 34351 | GRH1 | mitotic spindle checkpoint | 592 | 0.949 | 4 | 16 | 0 | 0.008 | 0.087 |
| YGR268C | 35920 | HUA1 | biological_process unknown | 593 | 0.949 | 4 | 16 | 0 | -0.106 | 0.048 |
| YKL116C | 34966 | PRR1 | MAPKKK cascade | 594 | 0.949 | 4 | 8 | 0 | -0.081 | 0.014 |
| YML055W | 30516 | SPC2 | signal peptide processing | 595 | 0.949 | 4 | 8 | 0 | -0.017 | 0.042 |
| YER005W | 30326 | YND1 | protein amino acid glycosylatior | 596 | 0.949 | 4 | 16 | 0 | -0.029 | 0.009 |
| YGL059W | 34426 | | biological_process unknown | 597 | 0.949 | 4 | 16 | 0 | -0.082 | 0.039 |
| YDL225W | 33923 | SHS1 | establishment of cell polarity (se | 598 | 0.949 | 4 | 16 | 0 | -0.136 | 0.052 |
| YML081W | 30489 | | biological_process unknown | 599 | 0.949 | 4 | 8 | 0 | 0.049 | 0.002 |
| YLR218C | 34167 | | biological_process unknown | 600 | 0.949 | 4 | 12 | 0 | -0.069 | 0.023 |
| YNR018W | 35393 | | biological_process unknown | 601 | 0.949 | 4 | 16 | 0 | -0.112 | 0.058 |
| YKL168C | 35018 | KKQ8 | biological_process unknown | 602 | 0.949 | 4 | 8 | 0 | 0.004 | 0.027 |
| YDR352W | 34189 | | biological_process unknown | 603 | 0.949 | 4 | 16 | 0 | -0.080 | 0.044 |
| YMR246W | 30833 | FAA4 | lipid metabolism* | 604 | 0.949 | 4 | 16 | 0 | 0.002 | 0.029 |
| YDR492W | 34326 | | biological_process unknown | 605 | 0.949 | 4 | 16 | 0 | -0.033 | 0.070 |
| YKR059W | 35130 | TIF1 | translational initiation | 606 | 0.949 | 4 | 16 | 0 | -0.088 | 0.084 |
| YAL024C | 37249 | LTE1 | regulation of exit from mitosis | 607 | 0.949 | 4 | 16 | 0 | -0.076 | 0.027 |
| YNL289W | 31155 | PCL1 | cell cycle | 608 | 0.949 | 4 | 16 | 0 | 0.000 | 0.014 |
| YDL184C | 33882 | RPL41A | protein biosynthesis | 609 | 0.949 | 4 | 15 | 0 | -0.016 | 0.022 |
| YDR121W | 34055 | DPB4 | lagging strand elongation* | 610 | 0.949 | 4 | 16 | 0 | -0.002 | 0.046 |
| YOR280C | 32536 | | biological_process unknown | 611 | 0.949 | 4 | 16 | 0 | -0.030 | 0.040 |
| YDR074W | 36692 | TPS2 | response to stress* | 612 | 0.950 | 3 | 6 | 0 | | |
| YHR151C | 32845 | | biological_process unknown | 613 | 0.950 | 4 | 16 | 0 | -0.024 | 0.089 |
| YGL002W | 34370 | ERP6 | secretory pathway | 614 | 0.950 | 4 | 12 | 0 | -0.093 | 0.054 |
| YJL198W | 31227 | PHO90 | phosphate transport | 615 | 0.950 | 4 | 16 | 0 | 0.091 | 0.036 |
| YJL175W | 37015 | | | 616 | 0.950 | 4 | 8 | 0 | -0.076 | 0.013 |
| YIL054W | 31447 | | | 617 | 0.950 | 4 | 16 | 0 | -0.087 | 0.030 |
| YBR030W | 33167 | | phospholipid metabolism | 618 | 0.950 | 4 | 8 | 0 | -0.027 | 0.009 |
| YAR023C | 30418 | | biological_process unknown | 619 | 0.950 | 4 | 8 | 0 | -0.034 | 0.030 |
| YIL168W | 32327 | SDL1 | serine family amino acid metabo | 620 | 0.950 | 4 | 16 | 0 | -0.078 | 0.042 |
| YAL046C | 30359 | | biological_process unknown | 621 | 0.950 | 4 | 8 | 0 | -0.044 | 0.004 |
| YER037W | 36695 | PHM8 | biological_process unknown | 622 | 0.950 | 4 | 16 | 0 | -0.020 | 0.061 |
| YJL215C | 31210 | | | 623 | 0.950 | 4 | 16 | 0 | -0.063 | 0.050 |

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|---|---|---|---|---|---|---|---|---|---|---|
| YLR098C | 32709 | CHA4 | regulation of transcription, DNA | 624 | 0.950 | 4 | 16 | 0 | -0.001 | 0.072 |
| YIL119C | 32278 | RPI1 | thiamin biosynthesis* | 625 | 0.950 | 4 | 16 | 0 | -0.042 | 0.027 |
| YKL081W | 34930 | TEF4 | translational elongation | 626 | 0.950 | 4 | 16 | 0 | -0.078 | 0.062 |
| YJL141C | 37006 | YAK1 | protein amino acid phosphorylat | 627 | 0.950 | 4 | 16 | 0 | -0.023 | 0.043 |
| YBR042C | 33179 | | phospholipid biosynthesis | 628 | 0.950 | 4 | 16 | 0 | 0.022 | 0.085 |
| YJL060W | 31363 | BNA3 | nicotinamide adenine dinucleoti | 629 | 0.950 | 4 | 16 | 0 | -0.024 | 0.072 |
| YGL034C | 34402 | | | 630 | 0.950 | 4 | 16 | 0 | -0.077 | 0.076 |
| YMR040W | 30616 | | biological_process unknown | 631 | 0.950 | 4 | 8 | 0 | -0.001 | 0.011 |
| YHR184W | 32878 | SSP1 | protein complex assembly* | 632 | 0.950 | 4 | 16 | 0 | -0.067 | 0.036 |
| YNL011C | 37369 | | biological_process unknown | 633 | 0.950 | 4 | 8 | 0 | -0.062 | 0.053 |
| YLR201C | 34150 | | biological_process unknown | 634 | 0.950 | 4 | 16 | 0 | -0.088 | 0.039 |
| YKR101W | 36017 | SIR1 | chromatin silencing at HML and | 635 | 0.950 | 4 | 12 | 0 | -0.177 | 0.026 |
| YDR089W | 34024 | | membrane organization and bio | 636 | 0.950 | 4 | 8 | 0 | -0.073 | 0.013 |
| YNL176C | 32036 | | biological_process unknown | 637 | 0.951 | 4 | 16 | 0 | -0.074 | 0.073 |
| YDR179C | 33537 | CSN9 | adaptation to pheromone during | 638 | 0.951 | 4 | 15 | 0 | 0.103 | 0.049 |
| YNL076W | 37222 | MKS1 | regulation of nitrogen utilization | 639 | 0.951 | 4 | 16 | 0 | -0.023 | 0.008 |
| YKR034W | 37047 | DAL80 | transcription* | 640 | 0.951 | 4 | 16 | 0 | -0.001 | 0.050 |
| YDR084C | 34019 | TVP23 | biological_process unknown | 641 | 0.951 | 4 | 16 | 0 | -0.013 | 0.057 |
| YKL216W | 35066 | URA1 | pyrimidine base biosynthesis | 642 | 0.951 | 4 | 10 | 2 | -0.287 | 0.444 |
| YGR015C | 34645 | | biological_process unknown | 643 | 0.951 | 4 | 11 | 0 | -0.050 | 0.005 |
| YKR026C | 35097 | GCN3 | translational initiation | 644 | 0.951 | 4 | 16 | 0 | -0.003 | 0.119 |
| YCR020W | 35751 | HTL1 | regulation of cell cycle* | 645 | 0.951 | 3 | 9 | 0 | | |
| YEL004W | 30244 | YEA4 | cell wall chitin biosynthesis* | 646 | 0.951 | 4 | 16 | 0 | -0.109 | 0.165 |
| YOR097C | 32353 | | biological_process unknown | 647 | 0.951 | 4 | 16 | 0 | -0.019 | 0.066 |
| YJR117W | 36920 | STE24 | peptide pheromone maturation | 648 | 0.951 | 4 | 16 | 0 | -0.042 | 0.014 |
| YMR054W | 36188 | STV1 | vacuolar acidification | 649 | 0.951 | 4 | 16 | 0 | -0.060 | 0.055 |
| YEL040W | 30281 | UTR2 | cell wall organization and bioge | 650 | 0.951 | 4 | 8 | 0 | 0.003 | 0.047 |
| YOR180C | 32436 | DCI1 | fatty acid beta-oxidation | 651 | 0.951 | 4 | 16 | 0 | -0.036 | 0.027 |
| YMR034C | 30610 | | biological_process unknown | 652 | 0.951 | 4 | 8 | 0 | -0.004 | 0.074 |
| YGL226W | 34593 | | biological_process unknown | 653 | 0.951 | 4 | 8 | 0 | -0.092 | 0.042 |
| YCL061C | 33468 | MRC1 | chromatin silencing at telomere | 654 | 0.951 | 4 | 8 | 0 | 0.035 | 0.010 |
| YGR026W | 34656 | | biological_process unknown | 655 | 0.951 | 4 | 16 | 0 | -0.082 | 0.075 |
| YDR096W | 34031 | GIS1 | intracellular signaling cascade | 656 | 0.951 | 4 | 16 | 0 | -0.043 | 0.028 |
| YDL079C | 33776 | MRK1 | protein amino acid phosphorylat | 657 | 0.951 | 4 | 16 | 0 | 0.014 | 0.020 |
| YBR023C | 33160 | CHS3 | response to osmotic stress* | 658 | 0.951 | 4 | 16 | 0 | -0.038 | 0.040 |
| YLR267W | 35176 | BOP2 | biological_process unknown | 659 | 0.951 | 4 | 16 | 0 | -0.057 | 0.015 |
| YDR001C | 33941 | NTH1 | response to stress* | 660 | 0.951 | 4 | 16 | 0 | -0.100 | 0.069 |
| YLR331C | 35240 | JIP3 | biological_process unknown | 661 | 0.951 | 4 | 16 | 0 | -0.135 | 0.039 |
| YOL096C | 36246 | COQ3 | ubiquinone metabolism* | 662 | 0.951 | 4 | 16 | 0 | -0.080 | 0.092 |
| YLR220W | 34169 | CCC1 | iron ion homeostasis* | 663 | 0.951 | 4 | 15 | 0 | -0.068 | 0.031 |
| YER011W | 30333 | TIR1 | response to stress | 664 | 0.952 | 4 | 8 | 0 | 0.007 | 0.039 |
| YHR044C | 31007 | DOG1 | glucose metabolism | 665 | 0.952 | 4 | 16 | 0 | -0.046 | 0.028 |
| YBR220C | 33360 | | biological_process unknown | 666 | 0.952 | 4 | 16 | 0 | -0.063 | 0.018 |
| YMR110C | 36550 | | biological_process unknown | 667 | 0.952 | 4 | 16 | 0 | -0.011 | 0.014 |
| YGR045C | 34675 | | biological_process unknown | 668 | 0.952 | 4 | 16 | 0 | -0.054 | 0.080 |
| YOR290C | 31586 | SNF2 | chromatin modeling | 669 | 0.952 | 3 | 9 | 0 | | |
| YDL144C | 33842 | | biological_process unknown | 670 | 0.952 | 4 | 8 | 0 | -0.058 | 0.011 |
| YDL078C | 33775 | MDH3 | fatty acid beta-oxidation* | 671 | 0.952 | 4 | 16 | 0 | -0.002 | 0.047 |
| YOR355W | 31652 | GDS1 | aerobic respiration | 672 | 0.952 | 4 | 16 | 0 | -0.024 | 0.045 |
| YNL013C | 35341 | | | 673 | 0.952 | 4 | 16 | 0 | -0.066 | 0.037 |
| YGR050C | 36984 | | | 674 | 0.952 | 4 | 16 | 0 | -0.077 | 0.021 |
| YJL178C | 31247 | ATG27 | vesicle organization and biogen | 675 | 0.952 | 4 | 16 | 0 | 0.016 | 0.038 |

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|---|---|---|---|---|---|---|---|---|---|---|
| YBL086C | 33112 | | biological_process unknown | 676 | 0.952 | 4 | 16 | 0 | -0.053 | 0.021 |
| YBR195C | 33335 | MSI1 | DNA repair* | 677 | 0.952 | 4 | 15 | 0 | 0.007 | 0.042 |
| YGR078C | 34708 | PAC10 | tubulin folding | 678 | 0.952 | 3 | 12 | 0 | | |
| YPL207W | 31085 | | biological_process unknown | 679 | 0.952 | 4 | 16 | 0 | -0.102 | 0.050 |
| YIL076W | 31469 | SEC28 | ER to Golgi transport* | 680 | 0.952 | 4 | 16 | 0 | -0.071 | 0.049 |
| YDR147W | 33505 | EKI1 | phosphatidylethanolamine biosy | 681 | 0.952 | 4 | 16 | 0 | -0.027 | 0.046 |
| YOR054C | 31830 | VHS3 | G1/S transition of mitotic cell cy | 682 | 0.952 | 4 | 11 | 0 | 0.025 | 0.083 |
| YHL007C | 30956 | STE20 | protein amino acid phosphorylat | 683 | 0.952 | 4 | 16 | 0 | -0.015 | 0.025 |
| YER049W | 30184 | | biological_process unknown | 684 | 0.952 | 4 | 16 | 0 | -0.004 | 0.017 |
| YLR313C | 35222 | SPH1 | establishment of cell polarity (se | 685 | 0.952 | 4 | 16 | 0 | -0.091 | 0.042 |
| YOR273C | 37331 | TPO4 | polyamine transport | 686 | 0.952 | 4 | 12 | 0 | -0.145 | 0.040 |
| YPR059C | 35478 | | | 687 | 0.952 | 4 | 16 | 0 | -0.030 | 0.059 |
| YBR300C | 35747 | | | 688 | 0.952 | 4 | 16 | 0 | -0.073 | 0.057 |
| YOR113W | 32369 | AZF1 | regulation of transcription, DNA | 689 | 0.952 | 4 | 16 | 0 | 0.016 | 0.049 |
| YBL078C | 33104 | ATG8 | protein-vacuolar targeting* | 690 | 0.953 | 4 | 16 | 0 | -0.050 | 0.062 |
| YJR087W | 36901 | | | 691 | 0.953 | 4 | 16 | 0 | -0.029 | 0.032 |
| YOR165W | 32421 | SEY1 | membrane organization and bio | 692 | 0.953 | 4 | 16 | 0 | -0.020 | 0.020 |
| YCL034W | 33441 | LSB5 | actin filament organization* | 693 | 0.953 | 4 | 8 | 0 | -0.119 | 0.061 |
| YNR049C | 35424 | MSO1 | sporulation (sensu Saccharomy | 694 | 0.953 | 4 | 16 | 0 | -0.100 | 0.048 |
| YNR045W | 35420 | PET494 | protein biosynthesis | 695 | 0.953 | 4 | 8 | 0 | -0.099 | 0.061 |
| YDL027C | 33723 | | biological_process unknown | 696 | 0.953 | 4 | 16 | 0 | -0.048 | 0.034 |
| YDL113C | 33810 | ATG20 | protein-vacuolar targeting* | 697 | 0.953 | 4 | 16 | 0 | -0.052 | 0.031 |
| YLR371W | 35280 | ROM2 | cell wall organization and bioge | 698 | 0.953 | 4 | 15 | 0 | -0.140 | 0.074 |
| YPL172C | 32080 | COX10 | heme a biosynthesis | 699 | 0.953 | 4 | 16 | 0 | -0.031 | 0.009 |
| YGL060W | 34427 | YBP2 | biological_process unknown | 700 | 0.953 | 4 | 16 | 0 | 0.024 | 0.051 |
| YMR206W | 30792 | | biological_process unknown | 701 | 0.953 | 4 | 16 | 0 | -0.026 | 0.026 |
| YKL117W | 34967 | SBA1 | protein folding | 702 | 0.953 | 4 | 16 | 0 | -0.037 | 0.008 |
| YAL062W | 30345 | GDH3 | glutamate biosynthesis | 703 | 0.953 | 4 | 8 | 0 | -0.043 | 0.077 |
| YNL175C | 32038 | NOP13 | biological_process unknown | 704 | 0.953 | 4 | 16 | 0 | -0.063 | 0.054 |
| YDR061W | 33996 | | biological_process unknown | 705 | 0.953 | 4 | 15 | 0 | -0.036 | 0.047 |
| YKR005C | 35076 | | biological_process unknown | 706 | 0.953 | 4 | 16 | 0 | -0.035 | 0.053 |
| YLR250W | 35159 | SSP120 | protein secretion | 707 | 0.953 | 4 | 16 | 0 | -0.083 | 0.046 |
| YCR059C | 35780 | YIH1 | regulation of amino acid metabo | 708 | 0.953 | 4 | 16 | 0 | -0.014 | 0.030 |
| YEL017W | 30258 | GTT3 | biological_process unknown | 709 | 0.953 | 4 | 16 | 0 | -0.064 | 0.034 |
| YOL113W | 36263 | SKM1 | protein amino acid phosphorylat | 710 | 0.954 | 4 | 12 | 0 | -0.122 | 0.021 |
| YNL086W | 37377 | | biological_process unknown | 711 | 0.954 | 4 | 16 | 0 | -0.043 | 0.039 |
| YDL238C | 33935 | | guanine metabolism | 712 | 0.954 | 4 | 16 | 0 | -0.062 | 0.048 |
| YGL165C | 34532 | | | 713 | 0.954 | 4 | 16 | 0 | -0.045 | 0.021 |
| YML017W | 30556 | PSP2 | biological_process unknown | 714 | 0.954 | 4 | 8 | 0 | -0.028 | 0.049 |
| YMR035W | 30611 | IMP2 | mitochondrial processing | 715 | 0.954 | 4 | 8 | 0 | 0.110 | 0.094 |
| YPL014W | 32814 | | biological_process unknown | 716 | 0.954 | 4 | 16 | 0 | -0.010 | 0.014 |
| YGL126W | 34493 | SCS3 | phospholipid metabolism | 717 | 0.954 | 4 | 16 | 0 | -0.101 | 0.020 |
| YGR100W | 34730 | MDR1 | biological_process unknown | 718 | 0.954 | 4 | 16 | 0 | -0.053 | 0.057 |
| YIL013C | 31405 | PDR11 | sterol transport | 719 | 0.954 | 4 | 16 | 0 | -0.081 | 0.042 |
| YNL275W | 31169 | | transport | 720 | 0.954 | 4 | 16 | 0 | -0.012 | 0.023 |
| YOR277C | 32533 | | | 721 | 0.954 | 4 | 16 | 0 | -0.004 | 0.058 |
| YMR065W | 36198 | KAR5 | karyogamy during conjugation w | 722 | 0.954 | 4 | 16 | 0 | -0.022 | 0.080 |
| YDR107C | 34041 | | biological_process unknown | 723 | 0.954 | 4 | 16 | 0 | -0.025 | 0.054 |
| YLR028C | 31583 | ADE16 | aerobic respiration* | 724 | 0.954 | 4 | 8 | 0 | -0.011 | 0.019 |
| YJL106W | 31317 | IME2 | protein amino acid phosphorylat | 725 | 0.954 | 4 | 14 | 0 | 0.014 | 0.019 |
| YBL012C | 33038 | | | 726 | 0.954 | 4 | 16 | 0 | 0.003 | 0.018 |
| YOR200W | 32456 | | | 727 | 0.954 | 4 | 8 | 0 | 0.043 | 0.026 |

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|---|---|---|---|---|---|---|---|---|---|---|
| YFL046W | 35667 | | biological_process unknown | 728 | 0.954 | 4 | 16 | 0 | -0.056 | 0.033 |
| YGL079W | 34446 | | biological_process unknown | 729 | 0.954 | 4 | 16 | 0 | -0.041 | 0.041 |
| YMR136W | 36956 | GAT2 | transcription | 730 | 0.954 | 4 | 16 | 0 | -0.034 | 0.032 |
| YLL010C | 31498 | PSR1 | response to stress | 731 | 0.954 | 4 | 16 | 0 | -0.064 | 0.039 |
| YKR102W | 37106 | FLO10 | biological_process unknown | 732 | 0.954 | 4 | 16 | 0 | -0.076 | 0.050 |
| YDR124W | 34058 | | biological_process unknown | 733 | 0.955 | 4 | 16 | 0 | -0.007 | 0.040 |
| YDR384C | 34220 | ATO3 | transport* | 734 | 0.955 | 4 | 16 | 0 | -0.057 | 0.055 |
| YOR332W | 31629 | VMA4 | vacuolar acidification | 735 | 0.955 | 4 | 8 | 0 | 0.127 | 0.023 |
| YGL009C | 34377 | LEU1 | leucine biosynthesis | 736 | 0.955 | 4 | 8 | 0 | -0.070 | 0.045 |
| YJL130C | 31295 | URA2 | pyrimidine base biosynthesis | 737 | 0.955 | 4 | 16 | 0 | -0.021 | 0.030 |
| YDR254W | 33613 | CHL4 | chromosome segregation | 738 | 0.955 | 4 | 16 | 0 | -0.107 | 0.032 |
| YGR164W | 34794 | | | 739 | 0.955 | 4 | 16 | 0 | -0.042 | 0.074 |
| YDL130W | 35823 | STF1 | ATP synthesis coupled proton t | 740 | 0.955 | 4 | 16 | 0 | -0.036 | 0.054 |
| YHR139C | 31967 | SPS100 | spore wall assembly (sensu Sa | 741 | 0.955 | 4 | 16 | 0 | -0.012 | 0.047 |
| YDL125C | 33822 | HNT1 | nucleotide metabolism | 742 | 0.955 | 4 | 8 | 0 | -0.041 | 0.011 |
| YNL022C | 35348 | | biological_process unknown | 743 | 0.955 | 4 | 16 | 0 | -0.148 | 0.036 |
| YIR001C | 32337 | SGN1 | mRNA metabolism | 744 | 0.955 | 4 | 16 | 0 | -0.055 | 0.028 |
| YMR039C | 30615 | SUB1 | positive regulation of transcripti | 745 | 0.955 | 4 | 8 | 0 | -0.056 | 0.019 |
| YBL062W | 33088 | | | 746 | 0.955 | 4 | 16 | 0 | -0.040 | 0.033 |
| YJL030W | 31392 | MAD2 | mitotic spindle checkpoint | 747 | 0.955 | 4 | 16 | 0 | -0.055 | 0.031 |
| YDR063W | 33998 | | biological_process unknown | 748 | 0.955 | 4 | 16 | 0 | 0.013 | 0.081 |
| YCL074W | 36878 | | | 749 | 0.955 | 4 | 8 | 0 | -0.067 | 0.021 |
| YOR072W | 31848 | | | 750 | 0.955 | 4 | 16 | 0 | -0.026 | 0.061 |
| YNR007C | 35382 | ATG3 | protein-vacuolar targeting* | 751 | 0.955 | 4 | 16 | 0 | -0.039 | 0.025 |
| YGL108C | 34475 | | biological_process unknown | 752 | 0.955 | 4 | 8 | 0 | -0.017 | 0.012 |
| YKR019C | 37042 | IRS4 | chromatin silencing at ribosoma | 753 | 0.955 | 4 | 16 | 0 | -0.053 | 0.046 |
| YGR227W | 35880 | DIE2 | N-linked glycosylation* | 754 | 0.955 | 4 | 16 | 0 | -0.089 | 0.075 |
| YFL042C | 37076 | | biological_process unknown | 755 | 0.955 | 4 | 16 | 0 | -0.049 | 0.021 |
| YGR071C | 34701 | | biological_process unknown | 756 | 0.955 | 4 | 16 | 0 | -0.101 | 0.038 |
| YKL094W | 34943 | YJU3 | biological_process unknown | 757 | 0.955 | 4 | 16 | 0 | -0.129 | 0.087 |
| YDR294C | 33653 | DPL1 | sphingolipid metabolism* | 758 | 0.955 | 4 | 16 | 0 | -0.030 | 0.029 |
| YNL327W | 31117 | EGT2 | cytokinesis | 759 | 0.955 | 4 | 16 | 0 | -0.071 | 0.065 |
| YCL047C | 33454 | | biological_process unknown | 760 | 0.955 | 4 | 15 | 0 | -0.028 | 0.048 |
| YNR025C | 35400 | | | 761 | 0.955 | 4 | 16 | 0 | -0.090 | 0.036 |
| YGL051W | 34419 | MST27 | biological_process unknown | 762 | 0.955 | 4 | 16 | 0 | -0.050 | 0.022 |
| YGR204W | 36591 | ADE3 | purine base biosynthesis | 763 | 0.955 | 4 | 15 | 0 | -0.038 | 0.021 |
| YML103C | 36503 | NUP188 | mRNA-nucleus export* | 764 | 0.955 | 4 | 8 | 0 | 0.053 | 0.082 |
| YIR017C | 35951 | MET28 | regulation of transcription from I | 765 | 0.955 | 4 | 16 | 0 | -0.097 | 0.044 |
| YLR210W | 34159 | CLB4 | G1/S transition of mitotic cell cy | 766 | 0.955 | 4 | 16 | 0 | -0.042 | 0.074 |
| YDL134C- | 33832 | | | 767 | 0.955 | 4 | 15 | 0 | -0.015 | 0.017 |
| YDR305C | 33664 | HNT2 | nucleoside catabolism | 768 | 0.955 | 4 | 16 | 0 | -0.035 | 0.031 |
| YIR020W- | 35955 | | | 769 | 0.956 | 4 | 16 | 0 | -0.109 | 0.060 |
| YLR019W | 31574 | PSR2 | response to stress | 770 | 0.956 | 4 | 16 | 0 | -0.060 | 0.081 |
| YOL138C | 36288 | | biological_process unknown | 771 | 0.956 | 4 | 16 | 0 | -0.031 | 0.028 |
| YER106W | 36104 | MAM1 | meiotic chromosome segregatic | 772 | 0.956 | 4 | 8 | 0 | 0.029 | 0.012 |
| YDR508C | 34342 | GNP1 | amino acid transport | 773 | 0.956 | 4 | 12 | 0 | -0.061 | 0.030 |
| YGR042W | 34672 | | biological_process unknown | 774 | 0.956 | 4 | 16 | 0 | -0.019 | 0.073 |
| YOL043C | 31734 | NTG2 | base-excision repair, AP site fo | 775 | 0.956 | 4 | 16 | 0 | -0.098 | 0.123 |
| YAL027W | 30381 | | biological_process unknown | 776 | 0.956 | 4 | 8 | 0 | -0.014 | 0.046 |
| YDR009W | 33949 | GAL3 | regulation of transcription, DNA | 777 | 0.956 | 4 | 16 | 0 | -0.081 | 0.033 |
| YIR037W | 35972 | HYR1 | response to oxidative stress | 778 | 0.956 | 4 | 16 | 0 | -0.087 | 0.026 |
| YOR239W | 32495 | ABP140 | actin cytoskeleton organization | 779 | 0.956 | 4 | 16 | 0 | -0.039 | 0.020 |

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|---|---|---|---|---|---|---|---|---|---|---|
| YDL019C | 33715 | OSH2 | steroid biosynthesis | 780 | 0.956 | 4 | 12 | 0 | 0.010 | 0.026 |
| YBR045C | 33182 | GIP1 | spore wall assembly (sensu Sac | 781 | 0.956 | 4 | 16 | 0 | -0.008 | 0.024 |
| YGR056W | 34686 | RSC1 | chromatin modeling | 782 | 0.956 | 4 | 16 | 0 | -0.014 | 0.028 |
| YKL101W | 34951 | HSL1 | protein amino acid phosphorylat | 783 | 0.956 | 4 | 9 | 1 | -0.105 | 0.245 |
| YIL024C | 31417 | | biological_process unknown | 784 | 0.956 | 4 | 16 | 0 | -0.140 | 0.021 |
| YAL054C | 36868 | ACS1 | acetyl-CoA biosynthesis* | 785 | 0.956 | 4 | 16 | 0 | -0.068 | 0.064 |
| YML087C | 30483 | | biological_process unknown | 786 | 0.956 | 4 | 8 | 0 | 0.000 | 0.016 |
| YOL019W | 31710 | | biological_process unknown | 787 | 0.956 | 4 | 16 | 0 | -0.045 | 0.059 |
| YGR031W | 34661 | | biological_process unknown | 788 | 0.956 | 4 | 16 | 0 | -0.060 | 0.010 |
| YHR075C | 31903 | PPE1 | protein modification | 789 | 0.956 | 4 | 16 | 0 | -0.024 | 0.094 |
| YCR034W | 35763 | FEN1 | sphingolipid biosynthesis* | 790 | 0.956 | 4 | 11 | 0 | -0.154 | 0.029 |
| YBR258C | 33398 | SHG1 | histone methylation | 791 | 0.956 | 4 | 12 | 0 | -0.013 | 0.062 |
| YJL132W | 37001 | | biological_process unknown | 792 | 0.956 | 4 | 16 | 0 | -0.048 | 0.040 |
| YOR164C | 32420 | | biological_process unknown | 793 | 0.956 | 4 | 8 | 0 | 0.005 | 0.070 |
| YCL013W | 33421 | | | 794 | 0.957 | 4 | 16 | 0 | -0.029 | 0.043 |
| YBR028C | 33165 | | biological_process unknown | 795 | 0.957 | 4 | 16 | 0 | 0.010 | 0.025 |
| YOR285W | 32541 | | biological_process unknown | 796 | 0.957 | 4 | 16 | 0 | -0.012 | 0.127 |
| YLR136C | 34093 | TIS11 | biological_process unknown | 797 | 0.957 | 4 | 16 | 0 | -0.035 | 0.038 |
| YOR029W | 31805 | | | 798 | 0.957 | 4 | 16 | 0 | -0.049 | 0.155 |
| YIL159W | 32318 | BNR1 | actin filament organization* | 799 | 0.957 | 4 | 16 | 0 | -0.051 | 0.053 |
| YOL092W | 36242 | | biological_process unknown | 800 | 0.957 | 4 | 16 | 0 | -0.057 | 0.048 |
| YGR058W | 34688 | | biological_process unknown | 801 | 0.957 | 4 | 16 | 0 | -0.054 | 0.083 |
| YJR098C | 36910 | | biological_process unknown | 802 | 0.957 | 4 | 16 | 0 | -0.066 | 0.019 |
| YKL037W | 34886 | | | 803 | 0.957 | 4 | 16 | 0 | -0.083 | 0.048 |
| YGL004C | 34372 | RPN14 | biological_process unknown | 804 | 0.957 | 4 | 12 | 0 | -0.063 | 0.047 |
| YPR073C | 35492 | LTP1 | protein amino acid dephosphory | 805 | 0.957 | 4 | 16 | 0 | -0.082 | 0.026 |
| YDR153C | 33511 | ENT5 | Golgi to endosome transport | 806 | 0.957 | 4 | 16 | 0 | -0.015 | 0.055 |
| YGL049C | 34417 | TIF4632 | translational initiation | 807 | 0.957 | 4 | 16 | 0 | -0.044 | 0.043 |
| YKL158W | 35008 | | | 808 | 0.957 | 4 | 11 | 0 | -0.057 | 0.012 |
| YNL214W | 31998 | PEX17 | peroxisome organization and bi | 809 | 0.957 | 4 | 16 | 0 | -0.073 | 0.044 |
| YLR247C | 35156 | | biological_process unknown | 810 | 0.957 | 4 | 16 | 0 | -0.054 | 0.053 |
| YDL137W | 33835 | ARF2 | ER to Golgi transport* | 811 | 0.957 | 4 | 16 | 0 | -0.131 | 0.040 |
| YBR095C | 33234 | RXT2 | conjugation with cellular fusion* | 812 | 0.957 | 4 | 16 | 0 | -0.008 | 0.065 |
| YKL218C | 35068 | | biological_process unknown | 813 | 0.957 | 4 | 8 | 0 | -0.094 | 0.007 |
| YDR036C | 33975 | EHD3 | endocytosis* | 814 | 0.957 | 4 | 16 | 0 | -0.020 | 0.032 |
| YHL021C | 30942 | | biological_process unknown | 815 | 0.957 | 4 | 16 | 0 | -0.025 | 0.026 |
| YDR203W | 33562 | | | 816 | 0.958 | 4 | 16 | 0 | -0.036 | 0.074 |
| YGR070W | 34700 | ROM1 | cell wall organization and bioge | 817 | 0.958 | 4 | 16 | 0 | 0.043 | 0.158 |
| YOR351C | 31648 | MEK1 | protein amino acid phosphorylat | 818 | 0.958 | 4 | 16 | 0 | -0.097 | 0.016 |
| YML102C | 36501 | | | 819 | 0.958 | 4 | 15 | 0 | 0.030 | 0.082 |
| YPL052W | 32776 | | biological_process unknown | 820 | 0.958 | 4 | 16 | 0 | -0.042 | 0.034 |
| YLR231C | 35140 | BNA5 | nicotinamide adenine dinucleoti | 821 | 0.958 | 4 | 16 | 0 | -0.064 | 0.054 |
| YOL093W | 36243 | TRM10 | tRNA methylation | 822 | 0.958 | 4 | 16 | 0 | -0.129 | 0.048 |
| YER051W | 30186 | | biological_process unknown | 823 | 0.958 | 4 | 16 | 0 | -0.027 | 0.045 |
| YOR255W | 32511 | OSW1 | biological_process unknown | 824 | 0.958 | 4 | 16 | 0 | -0.056 | 0.035 |
| YER085C | 30225 | | biological_process unknown | 825 | 0.958 | 4 | 16 | 0 | -0.025 | 0.031 |
| YIL084C | 31475 | SDS3 | histone deacetylation* | 826 | 0.958 | 4 | 12 | 0 | 0.010 | 0.014 |
| YOL048C | 31739 | | biological_process unknown | 827 | 0.958 | 4 | 16 | 0 | -0.101 | 0.082 |
| YHL024W | 36408 | RIM4 | meiosis* | 828 | 0.958 | 4 | 16 | 0 | -0.042 | 0.043 |
| YOR267C | 37325 | HRK1 | cell ion homeostasis | 829 | 0.958 | 4 | 16 | 0 | -0.070 | 0.059 |
| YLR360W | 35269 | VPS38 | late endosome to vacuole trans | 830 | 0.958 | 4 | 15 | 0 | -0.070 | 0.017 |
| YHR082C | 31910 | KSP1 | protein amino acid phosphorylat | 831 | 0.958 | 4 | 8 | 0 | -0.063 | 0.003 |

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|---|---|---|---|---|---|---|---|---|---|---|
| YBL024W | 33050 | NCL1 | tRNA methylation | 832 | 0.958 | 4 | 8 | 0 | -0.024 | 0.030 |
| YER089C | 37269 | PTC2 | G1/S transition of mitotic cell cy | 833 | 0.958 | 4 | 16 | 0 | -0.082 | 0.051 |
| YOL159C | 36665 | | biological_process unknown | 834 | 0.958 | 4 | 16 | 0 | -0.048 | 0.032 |
| YKR043C | 35114 | | biological_process unknown | 835 | 0.958 | 4 | 16 | 0 | -0.089 | 0.034 |
| YDR539W | 35834 | | biological_process unknown | 836 | 0.958 | 4 | 16 | 0 | -0.105 | 0.024 |
| YPL039W | 32789 | | biological_process unknown | 837 | 0.958 | 4 | 16 | 0 | -0.011 | 0.037 |
| YJL139C | 37004 | YUR1 | N-linked glycosylation* | 838 | 0.958 | 4 | 16 | 0 | -0.064 | 0.026 |
| YLR328W | 35237 | NMA1 | nicotinamide adenine dinucleoti | 839 | 0.958 | 4 | 15 | 0 | -0.087 | 0.068 |
| YGL003C | 34371 | CDH1 | ubiquitin-dependent protein cata | 840 | 0.958 | 4 | 8 | 0 | -0.069 | 0.030 |
| YNL328C | 31116 | MDJ2 | protein folding | 841 | 0.958 | 4 | 8 | 0 | -0.040 | 0.001 |
| YFL020C | 35639 | PAU5 | biological_process unknown | 842 | 0.958 | 4 | 16 | 0 | -0.081 | 0.032 |
| YAR002C | 37153 | ERP1 | ER to Golgi transport | 843 | 0.958 | 4 | 16 | 0 | -0.064 | 0.008 |
| YDR214W | 33573 | AHA1 | response to stress* | 844 | 0.958 | 4 | 16 | 0 | -0.014 | 0.023 |
| YGR242W | 35895 | | | 845 | 0.958 | 4 | 12 | 0 | -0.033 | 0.033 |
| YNL336W | 31108 | COS1 | biological_process unknown | 846 | 0.958 | 4 | 16 | 0 | -0.013 | 0.040 |
| YPL046C | 32782 | ELC1 | RNA elongation from Pol II pron | 847 | 0.958 | 4 | 16 | 0 | 0.004 | 0.017 |
| YBR259W | 33399 | | biological_process unknown | 848 | 0.958 | 4 | 16 | 0 | -0.050 | 0.073 |
| YNL321W | 31123 | | biological_process unknown | 849 | 0.958 | 4 | 16 | 0 | -0.049 | 0.038 |
| YDR097C | 34032 | MSH6 | mismatch repair | 850 | 0.958 | 4 | 16 | 0 | -0.055 | 0.035 |
| YCL028W | 33435 | RNQ1 | biological_process unknown | 851 | 0.959 | 4 | 16 | 0 | -0.011 | 0.041 |
| YLR046C | 32657 | | biological_process unknown | 852 | 0.959 | 4 | 16 | 0 | 0.016 | 0.089 |
| YML079W | 30491 | | biological_process unknown | 853 | 0.959 | 3 | 6 | 0 | | |
| YOR106W | 32362 | VAM3 | nonselective vesicle fusion* | 854 | 0.959 | 4 | 8 | 0 | -0.005 | 0.001 |
| YBR041W | 33178 | FAT1 | lipid transport* | 855 | 0.959 | 4 | 16 | 0 | -0.019 | 0.035 |
| YML060W | 30510 | OGG1 | DNA repair* | 856 | 0.959 | 4 | 8 | 0 | 0.048 | 0.013 |
| YBR113W | 33252 | | | 857 | 0.959 | 4 | 16 | 0 | 0.052 | 0.017 |
| YNR044W | 35419 | AGA1 | agglutination during conjugatior | 858 | 0.959 | 4 | 16 | 0 | -0.062 | 0.013 |
| YGR146C | 34776 | | biological_process unknown | 859 | 0.959 | 4 | 16 | 0 | -0.094 | 0.026 |
| YBR290W | 35738 | BSD2 | protein-vacuolar targeting* | 860 | 0.959 | 4 | 16 | 0 | -0.007 | 0.049 |
| YBR285W | 35733 | | biological_process unknown | 861 | 0.959 | 4 | 16 | 0 | -0.034 | 0.038 |
| YLR183C | 34132 | TOS4 | biological_process unknown | 862 | 0.959 | 4 | 16 | 0 | -0.074 | 0.038 |
| YDR018C | 33957 | | phospholipid biosynthesis | 863 | 0.959 | 4 | 16 | 0 | -0.072 | 0.023 |
| YLR319C | 35228 | BUD6 | establishment of cell polarity (se | 864 | 0.959 | 4 | 16 | 0 | -0.064 | 0.008 |
| YBR223C | 33363 | TDP1 | DNA repair | 865 | 0.959 | 4 | 16 | 0 | 0.023 | 0.041 |
| YGL063W | 34430 | PUS2 | tRNA modification | 866 | 0.959 | 4 | 16 | 0 | -0.099 | 0.036 |
| YGR241C | 35894 | YAP1802 | endocytosis | 867 | 0.959 | 4 | 16 | 0 | -0.029 | 0.045 |
| YML020W | 30553 | | biological_process unknown | 868 | 0.959 | 4 | 8 | 0 | 0.020 | 0.034 |
| YGR008C | 34638 | STF2 | ATP synthesis coupled proton tr | 869 | 0.959 | 4 | 8 | 0 | -0.124 | 0.002 |
| YER063W | 36585 | THO1 | transcription, DNA-dependent | 870 | 0.959 | 4 | 8 | 0 | -0.019 | 0.014 |
| YKL147C | 34997 | | | 871 | 0.959 | 4 | 16 | 0 | -0.045 | 0.088 |
| YHL002W | 36593 | HSE1 | protein-vacuolar targeting | 872 | 0.959 | 4 | 16 | 0 | 0.003 | 0.059 |
| YCL014W | 33422 | BUD3 | cytokinesis* | 873 | 0.959 | 4 | 16 | 0 | 0.007 | 0.015 |
| YKL046C | 34895 | DCW1 | cell wall biosynthesis (sensu Fu | 874 | 0.959 | 4 | 16 | 0 | -0.052 | 0.063 |
| YPR123C | 35538 | | | 875 | 0.959 | 4 | 11 | 0 | -0.003 | 0.024 |
| YEL007W | 30247 | | biological_process unknown | 876 | 0.959 | 4 | 8 | 0 | -0.039 | 0.131 |
| YBR056W | 33193 | | biological_process unknown | 877 | 0.960 | 4 | 16 | 0 | -0.016 | 0.018 |
| YGR055W | 34685 | MUP1 | sulfur amino acid transport | 878 | 0.960 | 4 | 16 | 0 | -0.085 | 0.039 |
| YPL071C | 32757 | | biological_process unknown | 879 | 0.960 | 4 | 16 | 0 | -0.036 | 0.032 |
| YDL134C | 33831 | PPH21 | protein biosynthesis* | 880 | 0.960 | 4 | 16 | 0 | -0.004 | 0.028 |
| YLR217W | 34166 | | | 881 | 0.960 | 4 | 16 | 0 | -0.066 | 0.016 |
| YHR139C | 31968 | | | 882 | 0.960 | 4 | 16 | 0 | -0.008 | 0.005 |
| YNL254C | 31190 | | biological_process unknown | 883 | 0.960 | 4 | 16 | 0 | 0.003 | 0.065 |

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|---|---|---|---|---|---|---|---|---|---|---|
| YBL048W | 33074 | | | 884 | 0.960 | 4 | 16 | 0 | -0.024 | 0.009 |
| YER181C | 36177 | | | 885 | 0.960 | 4 | 16 | 0 | -0.043 | 0.063 |
| YKL202W | 37035 | | | 886 | 0.960 | 4 | 16 | 0 | -0.066 | 0.023 |
| YGL083W | 34450 | SCY1 | biological_process unknown | 887 | 0.960 | 4 | 16 | 0 | -0.033 | 0.016 |
| YCL075W | 36879 | | | 888 | 0.960 | 4 | 16 | 0 | -0.051 | 0.026 |
| YML118W | 36519 | NGL3 | biological_process unknown | 889 | 0.960 | 4 | 16 | 0 | -0.010 | 0.110 |
| YPL004C | 37338 | LSP1 | biological_process unknown | 890 | 0.960 | 4 | 16 | 0 | -0.060 | 0.055 |
| YHL039W | 36597 | | biological_process unknown | 891 | 0.960 | 4 | 12 | 0 | -0.009 | 0.014 |
| YMR253C | 30839 | | biological_process unknown | 892 | 0.960 | 4 | 15 | 0 | -0.036 | 0.037 |
| YGR038W | 36980 | ORM1 | biological_process unknown | 893 | 0.960 | 4 | 15 | 0 | -0.006 | 0.026 |
| YLR236C | 35145 | | | 894 | 0.960 | 4 | 16 | 0 | -0.052 | 0.052 |
| YMR160W | 36746 | | biological_process unknown | 895 | 0.960 | 4 | 16 | 0 | -0.073 | 0.041 |
| YKL106W | 34956 | AAT1 | aspartate biosynthesis* | 896 | 0.960 | 4 | 16 | 0 | -0.029 | 0.015 |
| YFR046C | 35860 | CNN1 | meiosis* | 897 | 0.960 | 4 | 16 | 0 | -0.068 | 0.046 |
| YPL247C | 31045 | | biological_process unknown | 898 | 0.960 | 4 | 16 | 0 | -0.024 | 0.022 |
| YEL066W | 30308 | HPA3 | histone acetylation | 899 | 0.960 | 4 | 16 | 0 | -0.041 | 0.038 |
| YER072W | 30212 | VTC1 | vacuole fusion (non-autophagic | 900 | 0.960 | 4 | 16 | 0 | -0.025 | 0.072 |
| YPL221W | 31071 | BOP1 | biological_process unknown | 901 | 0.960 | 4 | 16 | 0 | -0.054 | 0.042 |
| YOR216C | 32472 | RUD3 | ER to Golgi transport | 902 | 0.960 | 4 | 16 | 0 | -0.023 | 0.052 |
| YBL003C | 33027 | HTA2 | chromatin assembly/disassemb | 903 | 0.960 | 4 | 16 | 0 | -0.040 | 0.039 |
| YGR080W | 34710 | TWF1 | polar budding* | 904 | 0.960 | 4 | 16 | 0 | -0.044 | 0.050 |
| YDR250C | 33609 | | | 905 | 0.960 | 4 | 16 | 0 | -0.049 | 0.020 |
| YDR204W | 33563 | COQ4 | ubiquinone metabolism | 906 | 0.960 | 4 | 15 | 0 | -0.126 | 0.117 |
| YJL210W | 31214 | PEX2 | peroxisome organization and bi | 907 | 0.960 | 4 | 16 | 0 | -0.052 | 0.038 |
| YGL101W | 34468 | | biological_process unknown | 908 | 0.960 | 4 | 8 | 0 | -0.011 | 0.018 |
| YOL024W | 31715 | | biological_process unknown | 909 | 0.960 | 4 | 16 | 0 | -0.002 | 0.050 |
| YPR038W | 35457 | | | 910 | 0.960 | 4 | 16 | 0 | -0.023 | 0.015 |
| YER163C | 36159 | | biological_process unknown | 911 | 0.960 | 4 | 16 | 0 | -0.013 | 0.057 |
| YEL014C | 30254 | | | 912 | 0.960 | 4 | 16 | 0 | -0.034 | 0.035 |
| YFR049W | 35863 | YMR31 | protein biosynthesis | 913 | 0.960 | 4 | 8 | 0 | -0.005 | 0.034 |
| YDL036C | 33732 | | biological_process unknown | 914 | 0.960 | 4 | 16 | 0 | -0.008 | 0.014 |
| YIR031C | 35966 | DAL7 | allantoin catabolism | 915 | 0.960 | 4 | 16 | 0 | -0.046 | 0.030 |
| YHR112C | 31940 | | sulfur metabolism | 916 | 0.961 | 4 | 16 | 0 | -0.051 | 0.041 |
| YOL131W | 36281 | | biological_process unknown | 917 | 0.961 | 4 | 16 | 0 | -0.064 | 0.013 |
| YDR056C | 33992 | | biological_process unknown | 918 | 0.961 | 4 | 15 | 0 | 0.039 | 0.014 |
| YDL018C | 33714 | ERP3 | secretory pathway | 919 | 0.961 | 4 | 16 | 0 | -0.062 | 0.006 |
| YOL136C | 36286 | PFK27 | fructose 2,6-bisphosphate meta | 920 | 0.961 | 4 | 16 | 0 | -0.088 | 0.030 |
| YGL039W | 34407 | | biological_process unknown | 921 | 0.961 | 4 | 16 | 0 | -0.073 | 0.039 |
| YHR206W | 32900 | SKN7 | response to osmotic stress* | 922 | 0.961 | 4 | 16 | 0 | -0.019 | 0.023 |
| YGL087C | 34454 | MMS2 | ubiquitin-dependent protein cata | 923 | 0.961 | 4 | 16 | 0 | 0.020 | 0.038 |
| YCR091W | 35810 | KIN82 | biological_process unknown | 924 | 0.961 | 4 | 8 | 0 | -0.038 | 0.032 |
| YIL012W | 31404 | | | 925 | 0.961 | 4 | 16 | 0 | -0.196 | 0.033 |
| YGR174C | 34804 | CBP4 | protein complex assembly | 926 | 0.961 | 4 | 12 | 0 | -0.077 | 0.037 |
| YJL159W | 31266 | HSP150 | cell wall organization and bioge | 927 | 0.961 | 4 | 16 | 0 | -0.022 | 0.036 |
| YDL156W | 33854 | | biological_process unknown | 928 | 0.961 | 4 | 16 | 0 | -0.060 | 0.043 |
| YKR009C | 35080 | FOX2 | fatty acid beta-oxidation | 929 | 0.961 | 4 | 16 | 0 | -0.021 | 0.052 |
| YOR115C | 32371 | TRS33 | ER to Golgi transport | 930 | 0.961 | 4 | 16 | 0 | -0.021 | 0.052 |
| YOL111C | 36261 | | biological_process unknown | 931 | 0.961 | 4 | 15 | 0 | -0.032 | 0.041 |
| YAR027W | 30419 | UIP3 | biological_process unknown | 932 | 0.961 | 4 | 8 | 0 | 0.011 | 0.012 |
| YDR371W | 34207 | CTS2 | biological_process unknown | 933 | 0.961 | 4 | 16 | 0 | -0.012 | 0.149 |
| YLL009C | 31497 | COX17 | cytochrome c oxidase biogenes | 934 | 0.961 | 4 | 16 | 0 | -0.104 | 0.075 |
| YDR495C | 34329 | VPS3 | protein-vacuolar targeting | 935 | 0.961 | 4 | 9 | 1 | -0.145 | 0.131 |

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|---|---|---|---|---|---|---|---|---|---|---|
| YLL018C-A | 36022 | COX19 | cytochrome c oxidase biogenes | 936 | 0.961 | 4 | 16 | 0 | -0.090 | 0.030 |
| YDR178W | 33536 | SDH4 | tricarboxylic acid cycle* | 937 | 0.961 | 4 | 11 | 0 | -0.006 | 0.028 |
| YLR311C | 35219 | | | 938 | 0.961 | 4 | 16 | 0 | -0.068 | 0.050 |
| YCL040W | 33447 | GLK1 | carbohydrate metabolism | 939 | 0.961 | 4 | 8 | 0 | -0.080 | 0.042 |
| YJL218W | 31207 | | biological_process unknown | 940 | 0.961 | 4 | 16 | 0 | -0.002 | 0.049 |
| YKR035C | 35106 | | | 941 | 0.961 | 4 | 16 | 0 | 0.009 | 0.050 |
| YCL044C | 33451 | | biological_process unknown | 942 | 0.961 | 4 | 16 | 0 | -0.041 | 0.040 |
| YDL172C | 33870 | | | 943 | 0.961 | 4 | 15 | 0 | -0.004 | 0.017 |
| YMR140W | 30721 | SIP5 | cellular response to glucose sta | 944 | 0.961 | 4 | 16 | 0 | -0.021 | 0.071 |
| YCR005C | 33485 | CIT2 | glutamate biosynthesis* | 945 | 0.961 | 4 | 16 | 0 | -0.053 | 0.050 |
| YEL060C | 30302 | PRB1 | sporulation* | 946 | 0.961 | 4 | 16 | 0 | 0.026 | 0.035 |
| YFR020W | 35699 | | | 947 | 0.961 | 4 | 16 | 0 | -0.105 | 0.035 |
| YDR216W | 33575 | ADR1 | transcription* | 948 | 0.961 | 4 | 15 | 0 | -0.020 | 0.072 |
| YGR232W | 35885 | NAS6 | proteolysis and peptidolysis | 949 | 0.961 | 4 | 16 | 0 | 0.005 | 0.039 |
| YPR046W | 35465 | MCM16 | chromosome segregation | 950 | 0.961 | 4 | 16 | 0 | -0.072 | 0.063 |
| YKL142W | 34992 | MRP8 | protein biosynthesis | 951 | 0.961 | 4 | 13 | 0 | -0.060 | 0.042 |
| YNL316C | 36472 | PHA2 | phenylalanine biosynthesis, pre | 952 | 0.961 | 4 | 16 | 0 | -0.018 | 0.015 |
| YOR385W | 31682 | | biological_process unknown | 953 | 0.961 | 4 | 16 | 0 | -0.139 | 0.052 |
| YBR098W | 33237 | MMS4 | DNA repair* | 954 | 0.961 | 4 | 16 | 0 | -0.019 | 0.062 |
| YNR014W | 35389 | | biological_process unknown | 955 | 0.961 | 4 | 16 | 0 | -0.056 | 0.055 |
| YNL168C | 32044 | | biological_process unknown | 956 | 0.962 | 4 | 16 | 0 | -0.021 | 0.046 |
| YDL095W | 33792 | PMT1 | O-linked glycosylation | 957 | 0.962 | 4 | 16 | 0 | -0.052 | 0.026 |
| YGL019W | 34387 | CKB1 | protein amino acid phosphoryla | 958 | 0.962 | 4 | 15 | 0 | -0.039 | 0.036 |
| YMR053C | 36187 | STB2 | histone deacetylation | 959 | 0.962 | 4 | 16 | 0 | -0.053 | 0.099 |
| YOL110W | 36260 | SHR5 | RAS protein signal transduction | 960 | 0.962 | 4 | 16 | 0 | -0.072 | 0.032 |
| YOR112W | 32368 | | biological_process unknown | 961 | 0.962 | 4 | 16 | 0 | 0.038 | 0.098 |
| YJL211C | 31215 | | | 962 | 0.962 | 4 | 16 | 0 | -0.003 | 0.028 |
| YKR072C | 35988 | SIS2 | G1/S transition of mitotic cell cy | 963 | 0.962 | 4 | 12 | 0 | 0.019 | 0.031 |
| YAL051W | 30355 | OAF1 | peroxisome organization and bi | 964 | 0.962 | 4 | 8 | 0 | 0.010 | 0.001 |
| YPR054W | 35473 | SMK1 | protein amino acid phosphoryla | 965 | 0.962 | 4 | 16 | 0 | -0.125 | 0.055 |
| YDR169C | 33527 | STB3 | biological_process unknown | 966 | 0.962 | 4 | 16 | 0 | -0.039 | 0.047 |
| YBR255W | 33395 | | biological_process unknown | 967 | 0.962 | 4 | 12 | 0 | -0.126 | 0.098 |
| YGR170W | 34800 | PSD2 | phosphatidylcholine biosynthesi | 968 | 0.962 | 4 | 16 | 0 | -0.074 | 0.058 |
| YBR216C | 33356 | YBP1 | response to oxidative stress | 969 | 0.962 | 4 | 15 | 0 | -0.038 | 0.017 |
| YGL032C | 34400 | AGA2 | agglutination during conjugatior | 970 | 0.962 | 4 | 16 | 0 | -0.032 | 0.067 |
| YGL017W | 34385 | ATE1 | ubiquitin-dependent protein cata | 971 | 0.962 | 4 | 16 | 0 | -0.019 | 0.033 |
| YGR051C | 34681 | | | 972 | 0.962 | 4 | 16 | 0 | -0.102 | 0.049 |
| YOR071C | 31847 | | transport | 973 | 0.962 | 4 | 16 | 0 | -0.048 | 0.063 |
| YJL165C | 37012 | HAL5 | cation homeostasis | 974 | 0.962 | 4 | 16 | 0 | -0.075 | 0.053 |
| YDL114W | 33811 | | biological_process unknown | 975 | 0.962 | 4 | 16 | 0 | -0.070 | 0.048 |
| YGL010W | 34378 | | biological_process unknown | 976 | 0.962 | 4 | 15 | 0 | -0.020 | 0.171 |
| YDL074C | 33771 | BRE1 | chromatin silencing at telomere | 977 | 0.962 | 4 | 12 | 0 | 0.020 | 0.007 |
| YBL044W | 33070 | | biological_process unknown | 978 | 0.962 | 4 | 16 | 0 | -0.025 | 0.024 |
| YOR252W | 32508 | | biological_process unknown | 979 | 0.962 | 4 | 16 | 0 | -0.058 | 0.017 |
| YLR461W | 36064 | PAU4 | biological_process unknown | 980 | 0.962 | 4 | 16 | 0 | -0.083 | 0.045 |
| YGR069W | 34699 | | | 981 | 0.962 | 4 | 16 | 0 | -0.030 | 0.038 |
| YDR293C | 33652 | SSD1 | cell wall organization and bioge | 982 | 0.962 | 4 | 16 | 0 | -0.105 | 0.015 |
| YIL053W | 31446 | RHR2 | response to osmotic stress* | 983 | 0.962 | 4 | 16 | 0 | 0.010 | 0.033 |
| YOR220W | 32476 | | biological_process unknown | 984 | 0.962 | 4 | 16 | 0 | -0.025 | 0.036 |
| YPR007C | 37136 | SPO69 | meiosis* | 985 | 0.962 | 4 | 16 | 0 | -0.069 | 0.049 |
| YBR032W | 33169 | | | 986 | 0.962 | 4 | 16 | 0 | -0.001 | 0.069 |
| YIL141W | 32300 | | | 987 | 0.962 | 4 | 16 | 0 | 0.003 | 0.128 |

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|---|---|---|---|---|---|---|---|---|---|---|
| YHL016C | 30947 | DUR3 | urea transport | 988 | 0.962 | 4 | 16 | 0 | -0.007 | 0.052 |
| YDL110C | 33807 | | biological_process unknown | 989 | 0.962 | 4 | 16 | 0 | -0.051 | 0.037 |
| YJL077C | 31346 | ICS3 | biological_process unknown | 990 | 0.962 | 4 | 15 | 0 | 0.042 | 0.047 |
| YLR345W | 35254 | | biological_process unknown | 991 | 0.962 | 4 | 16 | 0 | -0.021 | 0.052 |
| YDL186W | 33884 | | biological_process unknown | 992 | 0.962 | 4 | 16 | 0 | -0.030 | 0.058 |
| YLR354C | 35263 | TAL1 | pentose-phosphate shunt | 993 | 0.962 | 4 | 12 | 0 | -0.027 | 0.027 |
| YGL053W | 34420 | PRM8 | conjugation with cellular fusion | 994 | 0.962 | 4 | 16 | 0 | -0.104 | 0.026 |
| YFL055W | 35676 | AGP3 | amino acid transport | 995 | 0.963 | 4 | 16 | 0 | -0.020 | 0.029 |
| YOR131C | 32387 | | biological_process unknown | 996 | 0.963 | 4 | 16 | 0 | -0.026 | 0.049 |
| YOR013W | 31789 | | | 997 | 0.963 | 4 | 16 | 0 | 0.028 | 0.034 |
| YHR193C | 36422 | EGD2 | nascent polypeptide associatior | 998 | 0.963 | 4 | 16 | 0 | 0.020 | 0.081 |
| YKL220C | 37039 | FRE2 | iron ion transport* | 999 | 0.963 | 4 | 16 | 0 | -0.114 | 0.089 |
| YER088C | 36393 | DOT6 | regulation of transcription from I | 1000 | 0.963 | 4 | 16 | 0 | -0.060 | 0.065 |
| YOR155C | 32411 | ISN1 | biological_process unknown | 1001 | 0.963 | 4 | 16 | 0 | -0.050 | 0.028 |
| YDL001W | 33697 | RMD1 | biological_process unknown | 1002 | 0.963 | 4 | 8 | 0 | -0.119 | 0.020 |
| YNR027W | 35402 | BUD17 | bud site selection | 1003 | 0.963 | 4 | 15 | 0 | -0.029 | 0.034 |
| YDR019C | 33958 | GCV1 | one-carbon compound metaboli | 1004 | 0.963 | 4 | 16 | 0 | -0.040 | 0.030 |
| YAL008W | 30400 | FUN14 | biological_process unknown | 1005 | 0.963 | 4 | 8 | 0 | 0.003 | 0.009 |
| YKL127W | 34977 | PGM1 | glucose 1-phosphate utilization* | 1006 | 0.963 | 4 | 16 | 0 | -0.029 | 0.054 |
| YGR084C | 34714 | MRP13 | protein biosynthesis | 1007 | 0.963 | 4 | 16 | 0 | -0.075 | 0.081 |
| YGR033C | 34663 | | biological_process unknown | 1008 | 0.963 | 4 | 16 | 0 | -0.026 | 0.018 |
| YDR436W | 34272 | PPZ2 | sodium ion homeostasis | 1009 | 0.963 | 4 | 15 | 0 | -0.065 | 0.038 |
| YPR022C | 37142 | | biological_process unknown | 1010 | 0.963 | 4 | 16 | 0 | -0.117 | 0.053 |
| YNL274C | 36645 | | metabolism | 1011 | 0.963 | 4 | 16 | 0 | -0.064 | 0.026 |
| YJL131C | 31294 | | biological_process unknown | 1012 | 0.963 | 4 | 16 | 0 | 0.041 | 0.045 |
| YKL213C | 35063 | DOA1 | ubiquitin-dependent protein cata | 1013 | 0.963 | 4 | 16 | 0 | -0.067 | 0.028 |
| YBR173C | 33313 | UMP1 | protein catabolism | 1014 | 0.963 | 3 | 9 | 0 | | |
| YJR147W | 32625 | HMS2 | pseudohyphal growth | 1015 | 0.963 | 4 | 16 | 0 | 0.016 | 0.015 |
| YLR171W | 34120 | | | 1016 | 0.963 | 4 | 16 | 0 | 0.014 | 0.052 |
| YOR179C | 32435 | | biological_process unknown | 1017 | 0.963 | 4 | 16 | 0 | -0.084 | 0.027 |
| YEL064C | 30306 | AVT2 | transport | 1018 | 0.963 | 4 | 16 | 0 | -0.025 | 0.036 |
| YOL158C | 36664 | ENB1 | ferric-enterobactin transport | 1019 | 0.963 | 4 | 16 | 0 | -0.025 | 0.013 |
| YGL067W | 34434 | NPY1 | NADH metabolism | 1020 | 0.963 | 4 | 16 | 0 | -0.041 | 0.033 |
| YMR107W | 36547 | | biological_process unknown | 1021 | 0.963 | 4 | 16 | 0 | -0.084 | 0.046 |
| YKL137W | 34987 | | biological_process unknown | 1022 | 0.963 | 4 | 16 | 0 | -0.079 | 0.088 |
| YLR263W | 35172 | RED1 | synaptonemal complex formatic | 1023 | 0.963 | 4 | 16 | 0 | -0.071 | 0.038 |
| YOR344C | 31641 | TYE7 | transcription* | 1024 | 0.963 | 4 | 16 | 0 | -0.015 | 0.026 |
| YDR057W | 33993 | YOS9 | ER to Golgi transport | 1025 | 0.963 | 4 | 12 | 0 | -0.011 | 0.030 |
| YDR466W | 34300 | | biological_process unknown | 1026 | 0.963 | 4 | 16 | 0 | -0.032 | 0.087 |
| YLR013W | 31568 | GAT3 | transcription | 1027 | 0.963 | 4 | 16 | 0 | -0.104 | 0.171 |
| YPR153W | 35568 | | biological_process unknown | 1028 | 0.964 | 4 | 16 | 0 | -0.066 | 0.022 |
| YBL017C | 33043 | PEP1 | protein-vacuolar targeting* | 1029 | 0.964 | 4 | 16 | 0 | -0.013 | 0.048 |
| YLR420W | 34081 | URA4 | pyrimidine nucleotide biosynthe | 1030 | 0.964 | 4 | 12 | 0 | -0.012 | 0.001 |
| YGL170C | 34537 | SPO74 | sporulation (sensu Saccharomy | 1031 | 0.964 | 4 | 8 | 0 | -0.089 | 0.008 |
| YGR093W | 36991 | | biological_process unknown | 1032 | 0.964 | 4 | 16 | 0 | -0.068 | 0.021 |
| YMR132C | 36573 | | biological_process unknown | 1033 | 0.964 | 4 | 16 | 0 | -0.023 | 0.056 |
| YPR200C | 35615 | ARR2 | response to arsenate | 1034 | 0.964 | 4 | 16 | 0 | -0.035 | 0.050 |
| YLL026W | 31514 | HSP104 | response to stress* | 1035 | 0.964 | 4 | 16 | 0 | -0.003 | 0.018 |
| YJL079C | 31344 | PRY1 | biological_process unknown | 1036 | 0.964 | 4 | 16 | 0 | -0.021 | 0.016 |
| YGL005C | 34373 | COG7 | intra-Golgi transport | 1037 | 0.964 | 4 | 8 | 0 | -0.074 | 0.010 |
| YLR353W | 35262 | BUD8 | pseudohyphal growth* | 1038 | 0.964 | 4 | 16 | 0 | -0.070 | 0.074 |
| YBR068C | 33205 | BAP2 | amino acid transport | 1039 | 0.964 | 4 | 16 | 0 | -0.004 | 0.026 |

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|---|---|---|---|---|---|---|---|---|---|---|
| YHR012W | 30975 | VPS29 | retrograde (endosome to Golgi) | 1040 | 0.964 | 4 | 16 | 0 | 0.093 | 0.027 |
| YGL133W | 34500 | ITC1 | chromatin modeling* | 1041 | 0.964 | 4 | 11 | 0 | -0.116 | 0.050 |
| YDR014W | 33953 | RAD61 | response to radiation | 1042 | 0.964 | 4 | 16 | 0 | -0.018 | 0.045 |
| YDR119W | 34053 | | biological_process unknown | 1043 | 0.964 | 4 | 16 | 0 | -0.028 | 0.023 |
| YLR012C | 31567 | | biological_process unknown | 1044 | 0.964 | 4 | 16 | 0 | -0.115 | 0.156 |
| YPR150W | 35565 | | | 1045 | 0.964 | 4 | 11 | 0 | -0.066 | 0.002 |
| YHL017W | 30946 | | biological_process unknown | 1046 | 0.964 | 4 | 16 | 0 | 0.046 | 0.026 |
| YPR174C | 35589 | | biological_process unknown | 1047 | 0.964 | 4 | 16 | 0 | -0.053 | 0.047 |
| YBR133C | 33272 | HSL7 | G2/M transition of mitotic cell cy | 1048 | 0.964 | 3 | 9 | 0 | | |
| YNR021W | 35396 | | biological_process unknown | 1049 | 0.964 | 4 | 8 | 0 | 0.001 | 0.027 |
| YPR002W | 32829 | PDH1 | propionate metabolism | 1050 | 0.964 | 4 | 16 | 0 | 0.025 | 0.042 |
| YLR054C | 32665 | OSW2 | biological_process unknown | 1051 | 0.964 | 4 | 16 | 0 | 0.044 | 0.050 |
| YNL333W | 31111 | SNZ2 | thiamin biosynthesis* | 1052 | 0.964 | 4 | 16 | 0 | 0.003 | 0.030 |
| YBR245C | 33385 | ISW1 | chromatin modeling | 1053 | 0.964 | 4 | 16 | 0 | -0.012 | 0.057 |
| YEL005C | 30245 | VAB2 | biological_process unknown | 1054 | 0.964 | 4 | 16 | 0 | -0.099 | 0.151 |
| YPL022W | 32806 | RAD1 | removal of nonhomologous end | 1055 | 0.964 | 4 | 16 | 0 | -0.032 | 0.050 |
| YGL241W | 34608 | KAP114 | protein-nucleus import | 1056 | 0.964 | 4 | 16 | 0 | -0.033 | 0.037 |
| YDR105C | 34040 | TMS1 | biological_process unknown | 1057 | 0.964 | 4 | 16 | 0 | -0.017 | 0.021 |
| YJL206C-A | 31220 | | | 1058 | 0.964 | 4 | 16 | 0 | 0.004 | 0.029 |
| YDR046C | 33982 | BAP3 | amino acid transport | 1059 | 0.964 | 4 | 16 | 0 | -0.010 | 0.089 |
| YIR028W | 35963 | DAL4 | allantoin transport | 1060 | 0.964 | 4 | 12 | 0 | -0.050 | 0.113 |
| YER139C | 36137 | | biological_process unknown | 1061 | 0.964 | 4 | 11 | 0 | -0.034 | 0.011 |
| YDR043C | 33979 | NRG1 | regulation of transcription from I | 1062 | 0.964 | 4 | 15 | 0 | 0.089 | 0.029 |
| YER150W | 36147 | SPI1 | biological_process unknown | 1063 | 0.964 | 4 | 16 | 0 | 0.030 | 0.031 |
| YMR256C | 30842 | COX7 | aerobic respiration | 1064 | 0.964 | 4 | 15 | 0 | 0.031 | 0.069 |
| YGL249W | 34616 | ZIP2 | synaptonemal complex formatic | 1065 | 0.964 | 4 | 16 | 0 | -0.061 | 0.021 |
| YOR223W | 32479 | | biological_process unknown | 1066 | 0.965 | 4 | 16 | 0 | -0.042 | 0.051 |
| YEL059W | 30301 | | | 1067 | 0.965 | 4 | 16 | 0 | -0.032 | 0.029 |
| YMR250W | 30835 | GAD1 | response to oxidative stress* | 1068 | 0.965 | 4 | 8 | 0 | 0.031 | 0.003 |
| YNL098C | 32978 | RAS2 | pseudohyphal growth* | 1069 | 0.965 | 4 | 16 | 0 | -0.032 | 0.025 |
| YFR007W | 35686 | | biological_process unknown | 1070 | 0.965 | 4 | 16 | 0 | -0.075 | 0.094 |
| YFR045W | 35859 | | transport | 1071 | 0.965 | 4 | 16 | 0 | -0.032 | 0.053 |
| YOL112W | 36262 | MSB4 | actin filament organization | 1072 | 0.965 | 4 | 16 | 0 | -0.083 | 0.078 |
| YGL050W | 34418 | | biological_process unknown | 1073 | 0.965 | 4 | 16 | 0 | -0.019 | 0.028 |
| YDR283C | 33642 | GCN2 | protein amino acid phosphoryla | 1074 | 0.965 | 4 | 16 | 0 | 0.037 | 0.031 |
| YIL158W | 32317 | | biological_process unknown | 1075 | 0.965 | 4 | 16 | 0 | -0.047 | 0.042 |
| YKL151C | 35001 | | biological_process unknown | 1076 | 0.965 | 4 | 16 | 0 | -0.089 | 0.051 |
| YNL237W | 31975 | YTP1 | biological_process unknown | 1077 | 0.965 | 4 | 16 | 0 | -0.014 | 0.041 |
| YFL034C-A | 35844 | RPL22B | protein biosynthesis | 1078 | 0.965 | 4 | 16 | 0 | -0.069 | 0.049 |
| YJL064W | 31358 | | | 1079 | 0.965 | 4 | 16 | 0 | -0.034 | 0.021 |
| YKL164C | 35014 | PIR1 | cell wall organization and bioge | 1080 | 0.965 | 4 | 16 | 0 | -0.065 | 0.045 |
| YJR019C | 36817 | TES1 | fatty acid oxidation | 1081 | 0.965 | 4 | 15 | 0 | 0.006 | 0.055 |
| YIL152W | 32311 | | biological_process unknown | 1082 | 0.965 | 4 | 16 | 0 | -0.064 | 0.034 |
| YNL050C | 35375 | | biological_process unknown | 1083 | 0.965 | 4 | 16 | 0 | -0.074 | 0.046 |
| YNL134C | 32942 | | biological_process unknown | 1084 | 0.965 | 4 | 16 | 0 | -0.016 | 0.032 |
| YLR343W | 36948 | | biological_process unknown | 1085 | 0.965 | 4 | 16 | 0 | 0.029 | 0.067 |
| YJR107W | 36915 | | biological_process unknown | 1086 | 0.965 | 4 | 16 | 0 | 0.001 | 0.050 |
| YDR066C | 34001 | | biological_process unknown | 1087 | 0.965 | 4 | 16 | 0 | -0.040 | 0.021 |
| YHL006C | 30957 | SHU1 | biological_process unknown | 1088 | 0.965 | 4 | 16 | 0 | -0.011 | 0.021 |
| YBR201W | 33341 | DER1 | ER-associated protein catabolis | 1089 | 0.965 | 4 | 8 | 0 | -0.015 | 0.012 |
| YGR021W | 34651 | | biological_process unknown | 1090 | 0.965 | 4 | 15 | 0 | -0.042 | 0.048 |
| YDL039C | 33735 | PRM7 | conjugation with cellular fusion | 1091 | 0.965 | 4 | 16 | 0 | -0.037 | 0.050 |

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|---|---|---|---|---|---|---|---|---|---|---|
| YPR058W | 35477 | YMC1 | transport | 1092 | 0.965 | 4 | 16 | 0 | -0.019 | 0.060 |
| YAL060W | 30347 | BDH1 | butanediol fermentation | 1093 | 0.965 | 4 | 8 | 0 | 0.003 | 0.019 |
| YFR024C | 37081 | | | 1094 | 0.965 | 4 | 16 | 0 | -0.037 | 0.025 |
| YJL216C | 31209 | | biological_process unknown | 1095 | 0.965 | 4 | 16 | 0 | -0.056 | 0.028 |
| YJR153W | 36941 | PGU1 | pseudohyphal growth* | 1096 | 0.965 | 4 | 16 | 0 | 0.001 | 0.054 |
| YMR233W | 30819 | | biological_process unknown | 1097 | 0.965 | 4 | 14 | 0 | -0.098 | 0.012 |
| YOR008C | 36672 | | | 1098 | 0.966 | 4 | 16 | 0 | -0.098 | 0.037 |
| YOL109W | 36259 | | biological_process unknown | 1099 | 0.966 | 4 | 8 | 0 | -0.028 | 0.054 |
| YGR236C | 35889 | SPG1 | biological_process unknown | 1100 | 0.966 | 4 | 16 | 0 | -0.041 | 0.036 |
| YML067C | 36952 | ERV41 | ER to Golgi transport | 1101 | 0.966 | 4 | 16 | 0 | -0.047 | 0.051 |
| YDR502C | 37264 | SAM2 | methionine metabolism | 1102 | 0.966 | 4 | 16 | 0 | -0.014 | 0.031 |
| YOR092W | 31868 | ECM3 | cell wall organization and bioge | 1103 | 0.966 | 4 | 12 | 0 | -0.008 | 0.042 |
| YPR064W | 37150 | | | 1104 | 0.966 | 4 | 16 | 0 | -0.011 | 0.029 |
| YGR049W | 34679 | SCM4 | cell cycle | 1105 | 0.966 | 4 | 16 | 0 | -0.050 | 0.029 |
| YOL126C | 36276 | MDH2 | gluconeogenesis* | 1106 | 0.966 | 4 | 16 | 0 | -0.049 | 0.056 |
| YKL124W | 34974 | SSH4 | biological_process unknown | 1107 | 0.966 | 4 | 16 | 0 | -0.081 | 0.039 |
| YCL038C | 36876 | ATG22 | protein-vacuolar targeting* | 1108 | 0.966 | 4 | 16 | 0 | -0.043 | 0.036 |
| YJR095W | 36907 | SFC1 | fumarate transport* | 1109 | 0.966 | 4 | 16 | 0 | -0.008 | 0.027 |
| YPL019C | 32809 | VTC3 | vacuole fusion (non-autophagic | 1110 | 0.966 | 4 | 11 | 0 | -0.018 | 0.004 |
| YOR023C | 31799 | AHC1 | nucleosome disassembly | 1111 | 0.966 | 4 | 16 | 0 | 0.040 | 0.039 |
| YCR083W | 37197 | TRX3 | response to oxidative stress | 1112 | 0.966 | 4 | 12 | 0 | 0.003 | 0.012 |
| YML052W | 30519 | SUR7 | sporulation (sensu Saccharomy | 1113 | 0.966 | 4 | 8 | 0 | -0.014 | 0.007 |
| YMR173W | 36748 | DDR48 | DNA repair | 1114 | 0.966 | 4 | 16 | 0 | -0.018 | 0.047 |
| YDL124W | 33821 | | biological_process unknown | 1115 | 0.966 | 4 | 16 | 0 | 0.056 | 0.039 |
| YDR523C | 34357 | SPS1 | protein amino acid phosphoryla | 1116 | 0.966 | 4 | 16 | 0 | -0.075 | 0.033 |
| YAR002W | 30407 | NUP60 | nucleocytoplasmic transport* | 1117 | 0.966 | 4 | 8 | 0 | 0.025 | 0.036 |
| YOR053W | 31829 | | | 1118 | 0.966 | 4 | 16 | 0 | -0.014 | 0.034 |
| YMR289W | 30875 | ABZ2 | biological_process unknown | 1119 | 0.966 | 4 | 16 | 0 | -0.032 | 0.078 |
| YNL183C | 32029 | NPR1 | regulation of nitrogen utilization | 1120 | 0.966 | 4 | 16 | 0 | -0.039 | 0.009 |
| YDR011W | 33951 | SNQ2 | response to drug* | 1121 | 0.966 | 4 | 16 | 0 | -0.061 | 0.096 |
| YNL043C | 35368 | | | 1122 | 0.966 | 4 | 16 | 0 | -0.045 | 0.047 |
| YPL042C | 32786 | SSN3 | protein amino acid phosphoryla | 1123 | 0.966 | 4 | 11 | 0 | -0.010 | 0.074 |
| YJL070C | 37093 | | biological_process unknown | 1124 | 0.966 | 4 | 16 | 0 | 0.010 | 0.047 |
| YKR010C | 37041 | TOF2 | DNA topological change | 1125 | 0.966 | 4 | 16 | 0 | -0.068 | 0.086 |
| YHL035C | 30928 | VMR1 | transport | 1126 | 0.966 | 4 | 16 | 0 | -0.073 | 0.024 |
| YGR249W | 35902 | MGA1 | filamentous growth | 1127 | 0.966 | 4 | 16 | 0 | -0.018 | 0.057 |
| YOR171C | 32427 | LCB4 | sphingolipid metabolism* | 1128 | 0.966 | 4 | 16 | 0 | 0.004 | 0.040 |
| YML068W | 36953 | ITT1 | regulation of translational termir | 1129 | 0.966 | 4 | 16 | 0 | -0.025 | 0.041 |
| YLR315W | 35224 | NKP2 | biological_process unknown | 1130 | 0.966 | 3 | 9 | 0 | | |
| YKL205W | 35055 | LOS1 | tRNA-nucleus export* | 1131 | 0.966 | 4 | 12 | 0 | -0.071 | 0.032 |
| YFL054C | 35675 | | water transport | 1132 | 0.966 | 4 | 16 | 0 | -0.035 | 0.039 |
| YDR504C | 34338 | | | 1133 | 0.966 | 4 | 16 | 0 | -0.031 | 0.036 |
| YDR005C | 33945 | MAF1 | negative regulation of transcript | 1134 | 0.966 | 4 | 16 | 0 | -0.110 | 0.049 |
| YCR033W | 37182 | SNT1 | histone deacetylation* | 1135 | 0.966 | 4 | 16 | 0 | -0.022 | 0.034 |
| YLR040C | 36438 | | biological_process unknown | 1136 | 0.966 | 4 | 16 | 0 | 0.014 | 0.064 |
| YJR133W | 36931 | XPT1 | purine nucleotide biosynthesis | 1137 | 0.966 | 4 | 16 | 0 | 0.003 | 0.025 |
| YNL083W | 37227 | | transport | 1138 | 0.966 | 4 | 16 | 0 | -0.017 | 0.070 |
| YJL067W | 31356 | | | 1139 | 0.966 | 4 | 16 | 0 | -0.053 | 0.028 |
| YCL050C | 33457 | APA1 | nucleotide metabolism | 1140 | 0.967 | 4 | 16 | 0 | -0.041 | 0.047 |
| YKL071W | 34920 | | biological_process unknown | 1141 | 0.967 | 4 | 16 | 0 | -0.028 | 0.044 |
| YBL094C | 33120 | | | 1142 | 0.967 | 4 | 16 | 0 | -0.059 | 0.012 |
| YMR299C | 30887 | | biological_process unknown | 1143 | 0.967 | 4 | 16 | 0 | -0.076 | 0.033 |

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|---|---|---|---|---|---|---|---|---|---|---|
| YMR244C | 30832 | | biological_process unknown | 1144 | 0.967 | 4 | 16 | 0 | 0.039 | 0.064 |
| YOR227W | 32483 | | biological_process unknown | 1145 | 0.967 | 4 | 8 | 0 | -0.003 | 0.010 |
| YKL064W | 34913 | MNR2 | magnesium ion transport | 1146 | 0.967 | 4 | 16 | 0 | -0.079 | 0.042 |
| YJR137C | 32615 | ECM17 | cell wall organization and bioge | 1147 | 0.967 | 4 | 16 | 0 | -0.029 | 0.049 |
| YPL096W | 32156 | PNG1 | misfolded or incompletely synth | 1148 | 0.967 | 4 | 16 | 0 | 0.027 | 0.041 |
| YML113W | 36513 | DAT1 | negative regulation of transcript | 1149 | 0.967 | 4 | 16 | 0 | -0.010 | 0.070 |
| YER067C- | 30206 | | | 1150 | 0.967 | 4 | 16 | 0 | 0.010 | 0.045 |
| YIL073C | 31466 | SPO22 | meiosis | 1151 | 0.967 | 4 | 16 | 0 | 0.003 | 0.052 |
| YLR248W | 35157 | RCK2 | protein amino acid phosphoryla | 1152 | 0.967 | 4 | 16 | 0 | -0.029 | 0.031 |
| YHR108W | 31936 | GGA2 | Golgi to vacuole transport | 1153 | 0.967 | 4 | 16 | 0 | 0.010 | 0.026 |
| YCR020C | 33500 | PET18 | mitochondrion organization and | 1154 | 0.967 | 4 | 16 | 0 | 0.001 | 0.059 |
| YGR235C | 35888 | | biological_process unknown | 1155 | 0.967 | 4 | 16 | 0 | -0.041 | 0.046 |
| YPL249C | 31043 | GYP5 | vesicle-mediated transport | 1156 | 0.967 | 4 | 16 | 0 | -0.017 | 0.048 |
| YBR260C | 33400 | RGD1 | osmosensory signaling pathway | 1157 | 0.967 | 4 | 16 | 0 | -0.080 | 0.092 |
| YDR102C | 34037 | | | 1158 | 0.967 | 4 | 16 | 0 | -0.080 | 0.033 |
| YIR021W | 35956 | MRS1 | Group I intron splicing | 1159 | 0.967 | 4 | 16 | 0 | -0.027 | 0.051 |
| YLR286C | 36947 | CTS1 | cytokinesis, completion of separ | 1160 | 0.967 | 4 | 15 | 0 | 0.002 | 0.042 |
| YER001W | 30322 | MNN1 | O-linked glycosylation* | 1161 | 0.967 | 4 | 16 | 0 | -0.059 | 0.021 |
| YER075C | 30215 | PTP3 | signal transduction during conju | 1162 | 0.967 | 4 | 16 | 0 | 0.024 | 0.033 |
| YDR199W | 33558 | | | 1163 | 0.967 | 4 | 8 | 0 | 0.018 | 0.039 |
| YJR066W | 36864 | TOR1 | meiosis* | 1164 | 0.968 | 4 | 16 | 0 | -0.021 | 0.042 |
| YKR011C | 35082 | | biological_process unknown | 1165 | 0.968 | 4 | 16 | 0 | -0.038 | 0.041 |
| YBL096C | 33122 | | | 1166 | 0.968 | 4 | 16 | 0 | -0.062 | 0.082 |
| YCL016C | 33423 | DCC1 | sister chromatid cohesion | 1167 | 0.968 | 4 | 12 | 0 | 0.131 | 0.034 |
| YNL276C | 31168 | | | 1168 | 0.968 | 4 | 16 | 0 | -0.036 | 0.021 |
| YIL079C | 31472 | AIR1 | mRNA-nucleus export | 1169 | 0.968 | 4 | 8 | 0 | 0.009 | 0.060 |
| YDR198C | 33557 | | biological_process unknown | 1170 | 0.968 | 4 | 16 | 0 | -0.023 | 0.060 |
| YNL045W | 35370 | | lipid metabolism* | 1171 | 0.968 | 4 | 16 | 0 | -0.034 | 0.102 |
| YGL006W | 34374 | PMC1 | calcium ion transport* | 1172 | 0.968 | 4 | 16 | 0 | 0.002 | 0.059 |
| YDR230W | 33589 | | | 1173 | 0.968 | 4 | 16 | 0 | -0.050 | 0.059 |
| YNL173C | 32039 | MDG1 | signal transduction during conju | 1174 | 0.968 | 4 | 16 | 0 | -0.017 | 0.070 |
| YCR010C | 33490 | ADY2 | meiosis* | 1175 | 0.968 | 4 | 16 | 0 | -0.103 | 0.047 |
| YHR137W | 31965 | ARO9 | aromatic amino acid family meta | 1176 | 0.968 | 4 | 16 | 0 | -0.015 | 0.028 |
| YDR034C | 33973 | LYS14 | lysine biosynthesis, aminoadipic | 1177 | 0.968 | 4 | 16 | 0 | -0.016 | 0.049 |
| YDR512C | 37266 | EMI1 | biological_process unknown | 1178 | 0.968 | 4 | 16 | 0 | -0.071 | 0.083 |
| YER091C- | 35841 | | | 1179 | 0.968 | 4 | 16 | 0 | -0.002 | 0.038 |
| YOR081C | 31857 | | biological_process unknown | 1180 | 0.968 | 4 | 16 | 0 | 0.043 | 0.029 |
| YCR090C | 35809 | | biological_process unknown | 1181 | 0.968 | 4 | 15 | 0 | 0.029 | 0.076 |
| YKL131W | 34981 | | | 1182 | 0.968 | 4 | 16 | 0 | -0.041 | 0.036 |
| YDR099W | 34034 | BMH2 | pseudohyphal growth* | 1183 | 0.968 | 4 | 16 | 0 | -0.036 | 0.078 |
| YGL054C | 34421 | ERV14 | ER to Golgi transport* | 1184 | 0.968 | 4 | 16 | 0 | -0.011 | 0.050 |
| YJL158C | 31267 | CIS3 | cell wall organization and bioge | 1185 | 0.968 | 4 | 16 | 0 | -0.011 | 0.033 |
| YNR042W | 35417 | | | 1186 | 0.968 | 4 | 16 | 0 | -0.078 | 0.065 |
| YGR061C | 34691 | ADE6 | purine nucleotide biosynthesis | 1187 | 0.968 | 4 | 16 | 0 | -0.043 | 0.034 |
| YCR016W | 33496 | | biological_process unknown | 1188 | 0.968 | 4 | 16 | 0 | -0.056 | 0.049 |
| YOL150C | 36659 | | | 1189 | 0.968 | 4 | 16 | 0 | -0.054 | 0.100 |
| YOR033C | 31809 | EXO1 | mismatch repair | 1190 | 0.968 | 4 | 16 | 0 | -0.101 | 0.115 |
| YJL157C | 31268 | FAR1 | signal transduction during conju | 1191 | 0.968 | 4 | 16 | 0 | -0.054 | 0.039 |
| YOR090C | 31866 | PTC5 | biological_process unknown | 1192 | 0.968 | 4 | 16 | 0 | 0.005 | 0.026 |
| YFL007W | 37275 | BLM3 | biological_process unknown | 1193 | 0.968 | 4 | 15 | 0 | -0.085 | 0.087 |
| YKR017C | 35088 | | biological_process unknown | 1194 | 0.968 | 4 | 16 | 0 | -0.091 | 0.056 |
| YPR127W | 35542 | | biological_process unknown | 1195 | 0.968 | 4 | 16 | 0 | -0.092 | 0.064 |

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|---|---|---|---|---|---|---|---|---|---|---|
| YPL038W | 32790 | MET31 | sulfur amino acid metabolism* | 1196 | 0.968 | 4 | 16 | 0 | -0.019 | 0.048 |
| YHR092C | 31920 | HXT4 | hexose transport | 1197 | 0.969 | 4 | 16 | 0 | -0.026 | 0.015 |
| YJL068C | 31355 | | formaldehyde catabolism | 1198 | 0.969 | 4 | 16 | 0 | 0.045 | 0.043 |
| YGL262W | 34629 | | biological_process unknown | 1199 | 0.969 | 4 | 16 | 0 | -0.061 | 0.032 |
| YCR021C | 33502 | HSP30 | response to stress* | 1200 | 0.969 | 4 | 16 | 0 | -0.058 | 0.050 |
| YPR027C | 35446 | | biological_process unknown | 1201 | 0.969 | 4 | 16 | 0 | -0.065 | 0.074 |
| YLL058W | 31546 | | sulfur metabolism | 1202 | 0.969 | 4 | 16 | 0 | 0.028 | 0.027 |
| YIR023W | 37303 | DAL81 | regulation of transcription from I | 1203 | 0.969 | 4 | 16 | 0 | -0.066 | 0.036 |
| YOL099C | 36249 | | | 1204 | 0.969 | 4 | 16 | 0 | -0.064 | 0.041 |
| YHR198C | 32892 | | biological_process unknown | 1205 | 0.969 | 4 | 16 | 0 | -0.093 | 0.019 |
| YNR028W | 35403 | CPR8 | biological_process unknown | 1206 | 0.969 | 4 | 16 | 0 | -0.061 | 0.063 |
| YPR126C | 35541 | | | 1207 | 0.969 | 4 | 16 | 0 | -0.025 | 0.044 |
| YKR029C | 37046 | SET3 | histone deacetylation* | 1208 | 0.969 | 4 | 16 | 0 | -0.052 | 0.025 |
| YPR078C | 37152 | | meiosis* | 1209 | 0.969 | 4 | 16 | 0 | -0.071 | 0.067 |
| YIL025C | 31418 | | | 1210 | 0.969 | 4 | 16 | 0 | -0.086 | 0.071 |
| YHR049C | 31877 | | | 1211 | 0.969 | 4 | 16 | 0 | -0.040 | 0.044 |
| YOR215C | 32471 | | biological_process unknown | 1212 | 0.969 | 4 | 16 | 0 | -0.052 | 0.041 |
| YLR294C | 35204 | | | 1213 | 0.969 | 4 | 16 | 0 | -0.083 | 0.035 |
| YNL179C | 32033 | | | 1214 | 0.969 | 4 | 16 | 0 | 0.009 | 0.053 |
| YOR233W | 32489 | KIN4 | biological_process unknown | 1215 | 0.969 | 4 | 16 | 0 | -0.063 | 0.068 |
| YGL222C | 34588 | EDC1 | deadenylation-dependent decap | 1216 | 0.969 | 4 | 16 | 0 | 0.000 | 0.060 |
| YPR155C | 35570 | NCA2 | aerobic respiration* | 1217 | 0.969 | 4 | 16 | 0 | -0.035 | 0.051 |
| YOR368W | 31665 | RAD17 | meiotic recombination* | 1218 | 0.969 | 4 | 8 | 0 | -0.073 | 0.016 |
| YOL042W | 31733 | NGL1 | biological_process unknown | 1219 | 0.969 | 4 | 16 | 0 | -0.110 | 0.130 |
| YNL299W | 31145 | TRF5 | sister chromatid cohesion | 1220 | 0.969 | 4 | 16 | 0 | -0.042 | 0.039 |
| YAR031W | 30422 | PRM9 | conjugation with cellular fusion | 1221 | 0.969 | 4 | 8 | 0 | 0.009 | 0.038 |
| YAL056W | 30351 | GPB2 | signal transduction | 1222 | 0.969 | 4 | 8 | 0 | 0.013 | 0.010 |
| YCR062W | 37190 | | | 1223 | 0.969 | 4 | 16 | 0 | 0.005 | 0.048 |
| YFR021W | 35700 | ATG18 | protein-vacuolar targeting* | 1224 | 0.969 | 4 | 16 | 0 | -0.057 | 0.014 |
| YPL021W | 32807 | ECM23 | cell wall organization and bioge | 1225 | 0.969 | 4 | 16 | 0 | 0.032 | 0.067 |
| YLR273C | 35182 | PIG1 | regulation of glycogen biosynthe | 1226 | 0.969 | 4 | 16 | 0 | -0.091 | 0.036 |
| YMR181C | 36446 | | biological_process unknown | 1227 | 0.969 | 4 | 12 | 0 | 0.001 | 0.017 |
| YMR184W | 30769 | | biological_process unknown | 1228 | 0.969 | 4 | 15 | 0 | 0.038 | 0.063 |
| YNL116W | 32960 | | biological_process unknown | 1229 | 0.969 | 4 | 16 | 0 | -0.034 | 0.055 |
| YGL159W | 34526 | | biological_process unknown | 1230 | 0.969 | 4 | 16 | 0 | -0.041 | 0.014 |
| YNR012W | 35387 | URK1 | pyrimidine salvage | 1231 | 0.969 | 4 | 8 | 0 | -0.015 | 0.013 |
| YLR283W | 35192 | | biological_process unknown | 1232 | 0.969 | 4 | 16 | 0 | -0.052 | 0.035 |
| YKL214C | 35064 | YRA2 | poly(A)+ mRNA-nucleus export | 1233 | 0.969 | 4 | 16 | 0 | -0.150 | 0.154 |
| YOL103W | 36253 | ITR2 | myo-inositol transport | 1234 | 0.969 | 4 | 16 | 0 | -0.087 | 0.092 |
| YML123C | 36524 | PHO84 | phosphate transport | 1235 | 0.970 | 4 | 16 | 0 | 0.050 | 0.059 |
| YHL043W | 30920 | ECM34 | cell wall organization and bioge | 1236 | 0.970 | 4 | 16 | 0 | -0.044 | 0.045 |
| YDR444W | 37259 | | biological_process unknown | 1237 | 0.970 | 4 | 16 | 0 | -0.132 | 0.083 |
| YML078W | 30492 | CPR3 | protein folding | 1238 | 0.970 | 4 | 8 | 0 | 0.002 | 0.033 |
| YML084W | 30486 | | | 1239 | 0.970 | 4 | 8 | 0 | 0.009 | 0.066 |
| YKR104W | 36020 | NFT1 | transport | 1240 | 0.970 | 4 | 16 | 0 | -0.038 | 0.061 |
| YOR202W | 32458 | HIS3 | histidine biosynthesis | 1241 | 0.970 | 4 | 16 | 0 | -0.035 | 0.038 |
| YKR050W | 35121 | TRK2 | potassium ion homeostasis | 1242 | 0.970 | 4 | 8 | 0 | -0.087 | 0.032 |
| YLR241W | 35150 | | biological_process unknown | 1243 | 0.970 | 4 | 16 | 0 | -0.048 | 0.038 |
| YKL188C | 35038 | PXA2 | fatty acid transport | 1244 | 0.970 | 4 | 16 | 0 | -0.014 | 0.034 |
| YEL020C | 30261 | | biological_process unknown | 1245 | 0.970 | 4 | 16 | 0 | -0.011 | 0.050 |
| YDL021W | 33717 | GPM2 | gluconeogenesis* | 1246 | 0.970 | 4 | 16 | 0 | -0.105 | 0.052 |
| YLR318W | 35227 | EST2 | telomerase-dependent telomere | 1247 | 0.970 | 4 | 8 | 0 | -0.079 | 0.007 |

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|---|---|---|---|---|---|---|---|---|---|---|
| YDR205W | 36971 | MSC2 | zinc ion homeostasis | 1248 | 0.970 | 4 | 16 | 0 | 0.031 | 0.052 |
| YMR129W | 36570 | POM152 | mRNA-nucleus export* | 1249 | 0.970 | 4 | 16 | 0 | -0.038 | 0.047 |
| YLR394W | 36716 | CST9 | DNA replication and chromoson | 1250 | 0.970 | 4 | 16 | 0 | 0.011 | 0.047 |
| YML004C | 30572 | GLO1 | glutathione metabolism | 1251 | 0.970 | 4 | 8 | 0 | 0.071 | 0.057 |
| YIL120W | 32279 | QDR1 | multidrug transport | 1252 | 0.970 | 4 | 16 | 0 | -0.026 | 0.041 |
| YGR273C | 37292 | | biological_process unknown | 1253 | 0.970 | 4 | 16 | 0 | -0.044 | 0.059 |
| YLR393W | 35302 | ATP10 | protein complex assembly | 1254 | 0.970 | 4 | 16 | 0 | -0.022 | 0.053 |
| YMR148W | 30729 | | biological_process unknown | 1255 | 0.970 | 4 | 15 | 0 | 0.009 | 0.031 |
| YIL010W | 31402 | DOT5 | regulation of redox homeostasis | 1256 | 0.970 | 4 | 16 | 0 | -0.019 | 0.033 |
| YNL224C | 31988 | | biological_process unknown | 1257 | 0.970 | 4 | 16 | 0 | -0.057 | 0.071 |
| YHR202W | 32896 | | biological_process unknown | 1258 | 0.970 | 4 | 16 | 0 | 0.003 | 0.049 |
| YJL078C | 37094 | PRY3 | biological_process unknown | 1259 | 0.970 | 4 | 16 | 0 | -0.007 | 0.044 |
| YBR024W | 33161 | SCO2 | copper ion transport | 1260 | 0.970 | 4 | 16 | 0 | -0.072 | 0.029 |
| YLR385C | 35294 | | biological_process unknown | 1261 | 0.970 | 4 | 12 | 0 | -0.072 | 0.011 |
| YDR354W | 34191 | TRP4 | tryptophan biosynthesis | 1262 | 0.970 | 4 | 16 | 0 | -0.085 | 0.037 |
| YCL009C | 33417 | ILV6 | branched chain family amino ac | 1263 | 0.970 | 4 | 16 | 0 | -0.044 | 0.032 |
| YDL069C | 33766 | CBS1 | protein biosynthesis | 1264 | 0.970 | 4 | 16 | 0 | -0.003 | 0.053 |
| YNR065C | 36092 | YSN1 | biological_process unknown | 1265 | 0.970 | 4 | 16 | 0 | -0.016 | 0.040 |
| YDL169C | 33867 | UGX2 | biological_process unknown | 1266 | 0.970 | 4 | 16 | 0 | -0.037 | 0.036 |
| YJL172W | 37013 | CPS1 | proteolysis and peptidolysis* | 1267 | 0.970 | 4 | 8 | 0 | -0.062 | 0.056 |
| YGL162W | 34529 | SUT1 | regulation of transcription from I | 1268 | 0.970 | 4 | 16 | 0 | -0.030 | 0.047 |
| YPR031W | 37146 | NTO1 | biological_process unknown | 1269 | 0.970 | 4 | 16 | 0 | -0.025 | 0.020 |
| YBR208C | 33348 | DUR1,2 | urea metabolism | 1270 | 0.970 | 4 | 16 | 0 | -0.113 | 0.051 |
| YJR034W | 36832 | PET191 | cytochrome c oxidase biogenes | 1271 | 0.971 | 3 | 6 | 0 | | |
| YLR123C | 32734 | | | 1272 | 0.971 | 4 | 16 | 0 | -0.057 | 0.037 |
| YGL210W | 34576 | YPT32 | vesicle-mediated transport* | 1273 | 0.971 | 4 | 16 | 0 | -0.033 | 0.049 |
| YIR043C | 37306 | | biological_process unknown | 1274 | 0.971 | 4 | 16 | 0 | -0.027 | 0.048 |
| YPL248C | 31044 | GAL4 | regulation of transcription, DNA | 1275 | 0.971 | 4 | 16 | 0 | -0.056 | 0.013 |
| YIL047C | 31440 | SYG1 | signal transduction | 1276 | 0.971 | 4 | 16 | 0 | 0.045 | 0.037 |
| YHR109W | 31937 | CTM1 | protein modification | 1277 | 0.971 | 4 | 16 | 0 | 0.015 | 0.061 |
| YDR258C | 33617 | HSP78 | response to stress* | 1278 | 0.971 | 4 | 16 | 0 | -0.093 | 0.012 |
| YLR070C | 32681 | XYL2 | monosaccharide metabolism | 1279 | 0.971 | 4 | 16 | 0 | -0.003 | 0.103 |
| YPL056C | 32772 | | biological_process unknown | 1280 | 0.971 | 4 | 16 | 0 | -0.036 | 0.047 |
| YFR022W | 35701 | | biological_process unknown | 1281 | 0.971 | 4 | 16 | 0 | -0.073 | 0.009 |
| YLR377C | 35286 | FBP1 | gluconeogenesis | 1282 | 0.971 | 4 | 16 | 0 | -0.058 | 0.049 |
| YLR124W | 32735 | | | 1283 | 0.971 | 4 | 16 | 0 | -0.058 | 0.025 |
| YLR414C | 35322 | | biological_process unknown | 1284 | 0.971 | 4 | 16 | 0 | -0.031 | 0.050 |
| YBR073W | 33210 | RDH54 | meiotic recombination* | 1285 | 0.971 | 4 | 16 | 0 | -0.024 | 0.022 |
| YMR099C | 36539 | | biological_process unknown | 1286 | 0.971 | 4 | 16 | 0 | -0.046 | 0.015 |
| YGL259W | 34626 | YPS5 | biological_process unknown | 1287 | 0.971 | 4 | 16 | 0 | -0.065 | 0.078 |
| YOR229W | 32485 | WTM2 | regulation of meiosis | 1288 | 0.971 | 4 | 16 | 0 | 0.033 | 0.022 |
| YDR252W | 33611 | BTT1 | nascent polypeptide associatior | 1289 | 0.971 | 4 | 16 | 0 | -0.061 | 0.046 |
| YDR244W | 33603 | PEX5 | peroxisome organization and bi | 1290 | 0.971 | 4 | 16 | 0 | -0.025 | 0.046 |
| YBL036C | 33062 | | amino acid metabolism | 1291 | 0.971 | 4 | 16 | 0 | -0.011 | 0.022 |
| YGR177C | 34807 | ATF2 | steroid metabolism | 1292 | 0.971 | 4 | 16 | 0 | -0.016 | 0.058 |
| YHR016C | 36410 | YSC84 | actin filament organization* | 1293 | 0.971 | 4 | 16 | 0 | -0.007 | 0.046 |
| YPL274W | 31018 | SAM3 | S-adenosylmethionine transport | 1294 | 0.971 | 4 | 8 | 0 | -0.054 | 0.043 |
| YDL040C | 33736 | NAT1 | protein amino acid acetylation | 1295 | 0.971 | 4 | 11 | 0 | -0.047 | 0.034 |
| YIL140W | 32299 | AXL2 | bud site selection* | 1296 | 0.971 | 4 | 16 | 0 | -0.042 | 0.027 |
| YDR459C | 34293 | | biological_process unknown | 1297 | 0.971 | 4 | 16 | 0 | -0.013 | 0.069 |
| YOL025W | 31716 | LAG2 | replicative cell aging | 1298 | 0.971 | 4 | 16 | 0 | -0.023 | 0.014 |
| YOR089C | 31865 | VPS21 | protein-vacuolar targeting* | 1299 | 0.971 | 4 | 16 | 0 | -0.078 | 0.052 |

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|---|---|---|---|---|---|---|---|---|---|---|
| YHR126C | 31954 | | biological_process unknown | 1300 | 0.971 | 4 | 16 | 0 | -0.026 | 0.042 |
| YLR014C | 31569 | PPR1 | regulation of transcription, DNA | 1301 | 0.971 | 4 | 15 | 0 | 0.074 | 0.013 |
| YDL199C | 33897 | | biological_process unknown | 1302 | 0.971 | 4 | 16 | 0 | 0.013 | 0.067 |
| YCR019W | 33499 | MAK32 | virus-host interaction | 1303 | 0.971 | 4 | 16 | 0 | -0.079 | 0.032 |
| YGL056C | 34423 | SDS23 | biological_process unknown | 1304 | 0.971 | 4 | 16 | 0 | -0.021 | 0.040 |
| YMR278W | 30864 | | biological_process unknown | 1305 | 0.971 | 4 | 16 | 0 | -0.060 | 0.021 |
| YAR030C | 30423 | | | 1306 | 0.971 | 4 | 8 | 0 | -0.026 | 0.014 |
| YCR102W | 36963 | | | 1307 | 0.971 | 4 | 16 | 0 | -0.048 | 0.040 |
| YPR029C | 35448 | APL4 | vesicle-mediated transport | 1308 | 0.971 | 4 | 15 | 0 | -0.062 | 0.009 |
| YDL214C | 33912 | PRR2 | MAPKKK cascade | 1309 | 0.971 | 4 | 8 | 0 | -0.011 | 0.002 |
| YKR084C | 36000 | HBS1 | protein biosynthesis | 1310 | 0.971 | 4 | 16 | 0 | -0.027 | 0.111 |
| YMR018W | 30593 | | biological_process unknown | 1311 | 0.971 | 4 | 8 | 0 | 0.032 | 0.098 |
| YER060W | 30196 | FCY21 | biological_process unknown | 1312 | 0.971 | 4 | 15 | 0 | -0.061 | 0.013 |
| YNL281W | 31163 | HCH1 | response to stress* | 1313 | 0.971 | 4 | 16 | 0 | -0.027 | 0.038 |
| YKL162C | 35012 | | biological_process unknown | 1314 | 0.972 | 4 | 16 | 0 | 0.000 | 0.039 |
| YPR066W | 35485 | UBA3 | protein neddylation* | 1315 | 0.972 | 4 | 11 | 0 | -0.066 | 0.112 |
| YKL044W | 34893 | | | 1316 | 0.972 | 4 | 16 | 0 | -0.046 | 0.049 |
| YPR068C | 35487 | HOS1 | regulation of transcription, DNA | 1317 | 0.972 | 4 | 16 | 0 | -0.022 | 0.056 |
| YCR022C | 33503 | | | 1318 | 0.972 | 4 | 16 | 0 | -0.073 | 0.025 |
| YLR044C | 32655 | PDC1 | pyruvate metabolism* | 1319 | 0.972 | 4 | 16 | 0 | 0.043 | 0.043 |
| YBL063W | 33089 | KIP1 | microtubule nucleation* | 1320 | 0.972 | 4 | 16 | 0 | -0.004 | 0.033 |
| YBL039C | 33065 | URA7 | phospholipid biosynthesis* | 1321 | 0.972 | 4 | 15 | 0 | -0.028 | 0.069 |
| YMR167W | 30750 | MLH1 | meiotic recombination | 1322 | 0.972 | 4 | 16 | 0 | 0.021 | 0.076 |
| YNR002C | 35377 | FUN34 | transport* | 1323 | 0.972 | 4 | 16 | 0 | -0.040 | 0.067 |
| YBL009W | 33035 | | meiosis | 1324 | 0.972 | 4 | 16 | 0 | 0.035 | 0.019 |
| YMR023C | 30598 | MSS1 | protein biosynthesis | 1325 | 0.972 | 4 | 8 | 0 | 0.056 | 0.056 |
| YPR021C | 37400 | AGC1 | transport | 1326 | 0.972 | 4 | 16 | 0 | -0.045 | 0.047 |
| YGR044C | 34674 | RME1 | meiosis* | 1327 | 0.972 | 4 | 16 | 0 | 0.037 | 0.186 |
| YLL052C | 31540 | AQY2 | water transport | 1328 | 0.972 | 4 | 16 | 0 | 0.019 | 0.041 |
| YJL212C | 31213 | OPT1 | sulfur metabolism | 1329 | 0.972 | 4 | 16 | 0 | -0.043 | 0.019 |
| YLR083C | 32694 | EMP70 | transport | 1330 | 0.972 | 4 | 16 | 0 | -0.005 | 0.056 |
| YGL090W | 34457 | LIF1 | double-strand break repair via r | 1331 | 0.972 | 4 | 16 | 0 | -0.016 | 0.050 |
| YGL062W | 34429 | PYC1 | gluconeogenesis* | 1332 | 0.972 | 4 | 16 | 0 | -0.032 | 0.040 |
| YBR053C | 33190 | | biological_process unknown | 1333 | 0.972 | 4 | 16 | 0 | 0.052 | 0.061 |
| YFR032C | 35845 | | biological_process unknown | 1334 | 0.972 | 4 | 16 | 0 | -0.066 | 0.061 |
| YCR007C | 33487 | | biological_process unknown | 1335 | 0.972 | 4 | 16 | 0 | -0.014 | 0.041 |
| YGL146C | 34513 | | biological_process unknown | 1336 | 0.972 | 4 | 16 | 0 | -0.049 | 0.050 |
| YLR119W | 32730 | SRN2 | protein-vacuolar targeting* | 1337 | 0.972 | 4 | 16 | 0 | 0.024 | 0.030 |
| YMR119W | 37122 | ASI1 | ubiquitin-dependent protein cata | 1338 | 0.972 | 4 | 8 | 0 | 0.116 | 0.005 |
| YOR347C | 31644 | PYK2 | glycolysis* | 1339 | 0.972 | 4 | 16 | 0 | -0.020 | 0.042 |
| YKR033C | 35104 | | | 1340 | 0.972 | 4 | 16 | 0 | -0.049 | 0.064 |
| YOR263C | 32519 | | | 1341 | 0.972 | 4 | 16 | 0 | -0.011 | 0.029 |
| YGL260W | 34627 | | | 1342 | 0.972 | 4 | 16 | 0 | -0.031 | 0.070 |
| YDL215C | 33913 | GDH2 | nitrogen metabolism | 1343 | 0.972 | 4 | 16 | 0 | -0.053 | 0.041 |
| YGL198W | 34565 | YIP4 | biological_process unknown | 1344 | 0.972 | 4 | 15 | 0 | -0.010 | 0.030 |
| YOL015W | 31706 | | biological_process unknown | 1345 | 0.972 | 4 | 16 | 0 | 0.045 | 0.014 |
| YOL124C | 36274 | | biological_process unknown | 1346 | 0.972 | 4 | 16 | 0 | 0.008 | 0.023 |
| YLR329W | 35238 | REC102 | meiotic recombination* | 1347 | 0.972 | 4 | 8 | 0 | -0.053 | 0.025 |
| YLL042C | 31530 | ATG10 | protein-vacuolar targeting* | 1348 | 0.972 | 4 | 16 | 0 | -0.005 | 0.026 |
| YJR025C | 36823 | BNA1 | nicotinamide adenine dinucleoti | 1349 | 0.972 | 4 | 16 | 0 | -0.026 | 0.045 |
| YER046W | 30181 | | | 1350 | 0.972 | 4 | 16 | 0 | -0.018 | 0.043 |
| YJR128W | 32606 | | | 1351 | 0.972 | 4 | 16 | 0 | 0.044 | 0.017 |

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|---|---|---|---|---|---|---|---|---|---|---|
| YPL092W | 32160 | SSU1 | sulfite transport | 1352 | 0.972 | 4 | 16 | 0 | -0.034 | 0.029 |
| YOL119C | 36269 | MCH4 | transport | 1353 | 0.972 | 4 | 16 | 0 | -0.048 | 0.051 |
| YBR051W | 33188 | | | 1354 | 0.972 | 4 | 16 | 0 | 0.016 | 0.011 |
| YOL132W | 36282 | GAS4 | biological_process unknown | 1355 | 0.972 | 4 | 16 | 0 | -0.050 | 0.082 |
| YIL016W | 31409 | SNL1 | nuclear pore organization and b | 1356 | 0.972 | 4 | 16 | 0 | -0.025 | 0.036 |
| YBR076W | 33213 | ECM8 | cell wall organization and bioge | 1357 | 0.972 | 4 | 8 | 0 | -0.028 | 0.046 |
| YER060W | 30197 | FCY22 | biological_process unknown | 1358 | 0.972 | 4 | 16 | 0 | -0.016 | 0.030 |
| YJR130C | 32608 | STR2 | sulfur metabolism | 1359 | 0.972 | 4 | 8 | 0 | -0.081 | 0.024 |
| YMR071C | 36204 | TVP18 | biological_process unknown | 1360 | 0.972 | 4 | 16 | 0 | -0.056 | 0.086 |
| YDL123W | 33820 | SNA4 | biological_process unknown | 1361 | 0.972 | 4 | 16 | 0 | -0.055 | 0.050 |
| YGL085W | 34452 | | biological_process unknown | 1362 | 0.972 | 4 | 16 | 0 | -0.094 | 0.048 |
| YML009C | 36065 | MRPL39 | protein biosynthesis | 1363 | 0.973 | 4 | 16 | 0 | -0.017 | 0.027 |
| YMR074C | 37118 | | biological_process unknown | 1364 | 0.973 | 4 | 16 | 0 | -0.074 | 0.048 |
| YOR188W | 32444 | MSB1 | establishment of cell polarity (se | 1365 | 0.973 | 4 | 16 | 0 | -0.038 | 0.076 |
| YKL113C | 34963 | RAD27 | DNA repair* | 1366 | 0.973 | 3 | 9 | 0 | | |
| YFL028C | 35647 | CAF16 | regulation of transcription, DNA | 1367 | 0.973 | 4 | 16 | 0 | -0.040 | 0.048 |
| YDR541C | 35836 | | biological_process unknown | 1368 | 0.973 | 4 | 16 | 0 | -0.018 | 0.019 |
| YMR075C | 36208 | | | 1369 | 0.973 | 4 | 16 | 0 | 0.031 | 0.025 |
| YKR039W | 37050 | GAP1 | amino acid transport | 1370 | 0.973 | 4 | 16 | 0 | -0.034 | 0.067 |
| YOR321W | 31618 | PMT3 | O-linked glycosylation | 1371 | 0.973 | 4 | 15 | 0 | 0.007 | 0.011 |
| YOR166C | 32422 | | biological_process unknown | 1372 | 0.973 | 4 | 16 | 0 | -0.029 | 0.054 |
| YJL207C | 31218 | | biological_process unknown | 1373 | 0.973 | 4 | 16 | 0 | -0.012 | 0.023 |
| YER038W | 30171 | | | 1374 | 0.973 | 4 | 16 | 0 | -0.014 | 0.057 |
| YLR120C | 32731 | YPS1 | protein processing | 1375 | 0.973 | 4 | 16 | 0 | -0.007 | 0.041 |
| YER031C | 36583 | YPT31 | vesicle-mediated transport* | 1376 | 0.973 | 4 | 8 | 0 | 0.014 | 0.033 |
| YLR281C | 35190 | | biological_process unknown | 1377 | 0.973 | 4 | 16 | 0 | -0.065 | 0.062 |
| YAR020C | 30417 | PAU7 | biological_process unknown | 1378 | 0.973 | 4 | 8 | 0 | 0.003 | 0.038 |
| YMR169c | 30752 | ALD3 | response to stress* | 1379 | 0.973 | 4 | 16 | 0 | -0.012 | 0.057 |
| YDR003W | 33943 | | biological_process unknown | 1380 | 0.973 | 4 | 16 | 0 | -0.041 | 0.049 |
| YAR037W | 30426 | | | 1381 | 0.973 | 4 | 8 | 0 | -0.021 | 0.024 |
| YDR035W | 33974 | ARO3 | aromatic amino acid family bios | 1382 | 0.973 | 4 | 16 | 0 | -0.091 | 0.034 |
| YKL017C | 34866 | HCS1 | lagging strand elongation | 1383 | 0.973 | 4 | 16 | 0 | -0.102 | 0.067 |
| YER145C | 36142 | FTR1 | high affinity iron ion transport | 1384 | 0.973 | 4 | 16 | 0 | 0.020 | 0.065 |
| YML101C | 36500 | CUE4 | biological_process unknown | 1385 | 0.973 | 4 | 16 | 0 | -0.012 | 0.093 |
| YKL201C | 37034 | MNN4 | response to stress* | 1386 | 0.973 | 4 | 16 | 0 | -0.071 | 0.021 |
| YMR163C | 30746 | | biological_process unknown | 1387 | 0.973 | 4 | 16 | 0 | -0.013 | 0.054 |
| YDR503C | 34337 | LPP1 | phospholipid metabolism | 1388 | 0.973 | 4 | 16 | 0 | 0.003 | 0.039 |
| YFL047W | 35668 | RGD2 | small GTPase mediated signal t | 1389 | 0.973 | 4 | 16 | 0 | -0.052 | 0.037 |
| YPL001W | 32827 | HAT1 | chromatin silencing at telomere | 1390 | 0.973 | 4 | 16 | 0 | 0.021 | 0.036 |
| YNL001W | 35329 | DOM34 | protein biosynthesis | 1391 | 0.973 | 4 | 16 | 0 | -0.014 | 0.039 |
| YLR404W | 35313 | | biological_process unknown | 1392 | 0.973 | 4 | 12 | 0 | -0.034 | 0.034 |
| YEL016C | 30256 | | biological_process unknown | 1393 | 0.973 | 4 | 16 | 0 | -0.027 | 0.032 |
| YLR258W | 35167 | GSY2 | glycogen metabolism | 1394 | 0.973 | 4 | 16 | 0 | 0.004 | 0.046 |
| YPR032W | 35451 | SRO7 | Golgi to plasma membrane tran | 1395 | 0.973 | 4 | 16 | 0 | -0.002 | 0.019 |
| YGL127C | 34494 | SOH1 | DNA repair* | 1396 | 0.973 | 4 | 12 | 0 | 0.054 | 0.116 |
| YJL100W | 31323 | LSB6 | actin filament organization | 1397 | 0.973 | 4 | 16 | 0 | -0.038 | 0.029 |
| YKL121W | 34971 | | biological_process unknown | 1398 | 0.973 | 4 | 16 | 0 | -0.058 | 0.034 |
| YDR386W | 34222 | MUS81 | DNA repair* | 1399 | 0.973 | 4 | 16 | 0 | 0.016 | 0.078 |
| YFL013C | 37279 | IES1 | biological_process unknown | 1400 | 0.973 | 4 | 8 | 0 | -0.054 | 0.036 |
| YJR110W | 32588 | | biological_process unknown | 1401 | 0.973 | 4 | 16 | 0 | -0.020 | 0.069 |
| YPR037C | 37147 | ERV2 | protein thiol-disulfide exchange | 1402 | 0.973 | 4 | 16 | 0 | -0.033 | 0.065 |
| YJR008W | 36805 | | biological_process unknown | 1403 | 0.973 | 4 | 8 | 0 | -0.015 | 0.005 |

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|---|---|---|---|---|---|---|---|---|---|---|
| YGL257C | 34624 | MNT2 | O-linked glycosylation | 1404 | 0.973 | 4 | 16 | 0 | -0.030 | 0.028 |
| YOR190W | 32446 | SPR1 | sporulation (sensu Saccharomy | 1405 | 0.974 | 4 | 16 | 0 | 0.048 | 0.027 |
| YOR127W | 32383 | RGA1 | establishment of cell polarity (se | 1406 | 0.974 | 4 | 16 | 0 | -0.103 | 0.064 |
| YPL171C | 32081 | OYE3 | biological_process unknown | 1407 | 0.974 | 4 | 16 | 0 | 0.014 | 0.052 |
| YER180C | 36176 | ISC10 | sporulation | 1408 | 0.974 | 4 | 16 | 0 | -0.056 | 0.046 |
| YNR072W | 36231 | HXT17 | hexose transport | 1409 | 0.974 | 4 | 16 | 0 | -0.061 | 0.037 |
| YGR153W | 34783 | | biological_process unknown | 1410 | 0.974 | 4 | 16 | 0 | -0.077 | 0.036 |
| YGL202W | 34569 | ARO8 | aromatic amino acid family meta | 1411 | 0.974 | 4 | 15 | 0 | 0.009 | 0.052 |
| YKL183W | 35033 | LOT5 | biological_process unknown | 1412 | 0.974 | 4 | 16 | 0 | -0.031 | 0.069 |
| YGR279C | 35931 | SCW4 | conjugation with cellular fusion | 1413 | 0.974 | 4 | 16 | 0 | -0.074 | 0.034 |
| YOL153C | 37133 | | biological_process unknown | 1414 | 0.974 | 4 | 16 | 0 | -0.071 | 0.053 |
| YNL053W | 37373 | MSG5 | adaptation to pheromone during | 1415 | 0.974 | 4 | 16 | 0 | -0.035 | 0.039 |
| YGR256W | 35908 | GND2 | glucose metabolism | 1416 | 0.974 | 4 | 16 | 0 | 0.006 | 0.029 |
| YBL052C | 33078 | SAS3 | chromatin silencing at telomere | 1417 | 0.974 | 4 | 16 | 0 | -0.009 | 0.041 |
| YDR093W | 34028 | DNF2 | intracellular protein transport | 1418 | 0.974 | 4 | 12 | 0 | -0.011 | 0.055 |
| YBR288C | 37174 | APM3 | Golgi to vacuole transport | 1419 | 0.974 | 3 | 6 | 0 | | |
| YKL015W | 34864 | PUT3 | positive regulation of transcripti | 1420 | 0.974 | 4 | 12 | 0 | -0.021 | 0.019 |
| YMR243C | 30829 | ZRC1 | zinc ion homeostasis* | 1421 | 0.974 | 4 | 8 | 0 | 0.097 | 0.004 |
| YDL024C | 33720 | DIA3 | pseudohyphal growth* | 1422 | 0.974 | 4 | 16 | 0 | -0.042 | 0.039 |
| YAL030W | 30378 | SNC1 | endocytosis* | 1423 | 0.974 | 4 | 8 | 0 | 0.036 | 0.025 |
| YGR133W | 34763 | PEX4 | peroxisome organization and bi | 1424 | 0.974 | 4 | 15 | 0 | -0.003 | 0.090 |
| YKL200C | 35050 | | | 1425 | 0.974 | 4 | 8 | 0 | -0.041 | 0.037 |
| YDL176W | 33874 | | biological_process unknown | 1426 | 0.974 | 4 | 15 | 0 | -0.015 | 0.054 |
| YDR007W | 37202 | TRP1 | tryptophan biosynthesis* | 1427 | 0.974 | 4 | 16 | 0 | -0.046 | 0.068 |
| YDL080C | 33777 | THI3 | thiamin biosynthesis | 1428 | 0.974 | 4 | 16 | 0 | -0.042 | 0.007 |
| YGR067C | 34697 | | biological_process unknown | 1429 | 0.974 | 4 | 16 | 0 | -0.029 | 0.054 |
| YOR022C | 31798 | | biological_process unknown | 1430 | 0.974 | 4 | 16 | 0 | 0.004 | 0.029 |
| YGL180W | 34547 | ATG1 | autophagy | 1431 | 0.974 | 4 | 11 | 0 | -0.022 | 0.016 |
| YBR075W | 37346 | | biological_process unknown | 1432 | 0.974 | 4 | 8 | 0 | -0.013 | 0.018 |
| YDR511W | 34345 | ACN9 | gluconeogenesis* | 1433 | 0.974 | 4 | 15 | 0 | 0.005 | 0.014 |
| YKR097W | 36013 | PCK1 | gluconeogenesis | 1434 | 0.974 | 4 | 16 | 0 | -0.067 | 0.020 |
| YBL069W | 33095 | AST1 | protein-membrane targeting | 1435 | 0.974 | 4 | 16 | 0 | -0.044 | 0.030 |
| YKR014C | 35085 | YPT52 | protein-vacuolar targeting* | 1436 | 0.974 | 4 | 12 | 0 | -0.051 | 0.051 |
| YCR048W | 37185 | ARE1 | sterol metabolism | 1437 | 0.974 | 4 | 16 | 0 | -0.044 | 0.027 |
| YDR108W | 34042 | GSG1 | ER to Golgi transport* | 1438 | 0.974 | 4 | 16 | 0 | -0.024 | 0.041 |
| YPL053C | 32775 | KTR6 | cell wall organization and bioge | 1439 | 0.974 | 4 | 15 | 0 | -0.014 | 0.050 |
| YDR442W | 34278 | | | 1440 | 0.974 | 4 | 8 | 0 | -0.034 | 0.007 |
| YDR165W | 33523 | TRM82 | tRNA methylation | 1441 | 0.974 | 4 | 11 | 0 | 0.023 | 0.068 |
| YNL087W | 37229 | | biological_process unknown | 1442 | 0.974 | 4 | 16 | 0 | 0.000 | 0.042 |
| YMR261C | 30847 | TPS3 | response to stress* | 1443 | 0.974 | 4 | 16 | 0 | -0.078 | 0.053 |
| YPR195C | 35610 | | | 1444 | 0.974 | 4 | 16 | 0 | -0.055 | 0.031 |
| YGL164C | 34531 | YRB30 | biological_process unknown | 1445 | 0.974 | 4 | 16 | 0 | -0.045 | 0.044 |
| YER064C | 36390 | | biological_process unknown | 1446 | 0.974 | 4 | 16 | 0 | -0.002 | 0.043 |
| YMR153C | 30735 | | | 1447 | 0.974 | 4 | 16 | 0 | 0.086 | 0.036 |
| YDR116C | 34050 | MRPL1 | protein biosynthesis* | 1448 | 0.974 | 4 | 16 | 0 | -0.042 | 0.065 |
| YLR287C | 35196 | | biological_process unknown | 1449 | 0.974 | 4 | 16 | 0 | -0.043 | 0.043 |
| YPR040W | 35459 | TIP41 | signal transduction | 1450 | 0.974 | 4 | 11 | 0 | 0.061 | 0.024 |
| YMR141C | 30722 | | | 1451 | 0.974 | 4 | 16 | 0 | 0.025 | 0.016 |
| YOR111W | 32367 | | biological_process unknown | 1452 | 0.974 | 4 | 16 | 0 | -0.006 | 0.059 |
| YOR269W | 37327 | PAC1 | nuclear migration (sensu Sacch | 1453 | 0.974 | 4 | 16 | 0 | -0.032 | 0.039 |
| YGR226C | 35879 | | biological_process unknown | 1454 | 0.974 | 4 | 16 | 0 | -0.050 | 0.015 |
| YPL154C | 32098 | PEP4 | sporulation* | 1455 | 0.974 | 4 | 16 | 0 | -0.020 | 0.027 |

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|---|---|---|---|---|---|---|---|---|---|---|
| YBR092C | 33231 | PHO3 | thiamin transport | 1456 | 0.974 | 4 | 16 | 0 | 0.026 | 0.028 |
| YOL007C | 31698 | | biological_process unknown | 1457 | 0.974 | 4 | 12 | 0 | 0.008 | 0.012 |
| YJL206C | 37024 | | biological_process unknown | 1458 | 0.975 | 4 | 16 | 0 | -0.042 | 0.042 |
| YPL256C | 31036 | CLN2 | regulation of CDK activity* | 1459 | 0.975 | 4 | 16 | 0 | -0.034 | 0.042 |
| YMR255W | 30841 | GFD1 | mRNA-nucleus export | 1460 | 0.975 | 4 | 16 | 0 | -0.014 | 0.074 |
| YDL149W | 33847 | ATG9 | protein-vacuolar targeting* | 1461 | 0.975 | 4 | 16 | 0 | -0.022 | 0.022 |
| YHR162W | 36416 | | biological_process unknown | 1462 | 0.975 | 4 | 16 | 0 | -0.019 | 0.036 |
| YDR242W | 37256 | AMD2 | biological_process unknown | 1463 | 0.975 | 4 | 16 | 0 | -0.051 | 0.055 |
| YJL094C | 37095 | KHA1 | monovalent inorganic cation tra | 1464 | 0.975 | 4 | 15 | 0 | 0.018 | 0.029 |
| YIL057C | 31450 | | biological_process unknown | 1465 | 0.975 | 4 | 16 | 0 | 0.006 | 0.016 |
| YIL146C | 32305 | ECM37 | cell wall organization and bioge | 1466 | 0.975 | 4 | 16 | 0 | -0.013 | 0.034 |
| YEL025C | 30266 | | biological_process unknown | 1467 | 0.975 | 4 | 16 | 0 | -0.033 | 0.080 |
| YDL089W | 33786 | | biological_process unknown | 1468 | 0.975 | 4 | 15 | 0 | -0.053 | 0.055 |
| YML037C | 30534 | | biological_process unknown | 1469 | 0.975 | 4 | 8 | 0 | 0.106 | 0.030 |
| YOR058C | 31834 | ASE1 | mitotic anaphase B* | 1470 | 0.975 | 4 | 16 | 0 | -0.008 | 0.051 |
| YOR132W | 32388 | VPS17 | retrograde (endosome to Golgi) | 1471 | 0.975 | 4 | 16 | 0 | -0.078 | 0.047 |
| YKR103W | 36019 | NFT1 | transport | 1472 | 0.975 | 4 | 16 | 0 | -0.042 | 0.018 |
| YOL090W | 36240 | MSH2 | DNA recombination* | 1473 | 0.975 | 4 | 16 | 0 | -0.042 | 0.023 |
| YGR039W | 34669 | | | 1474 | 0.975 | 4 | 16 | 0 | -0.044 | 0.034 |
| YOR264W | 32520 | DSE3 | biological_process unknown | 1475 | 0.975 | 4 | 14 | 0 | -0.018 | 0.012 |
| YNL202W | 32009 | SPS19 | sporulation (sensu Saccharomy | 1476 | 0.975 | 4 | 16 | 0 | -0.032 | 0.030 |
| YBR005W | 33140 | | biological_process unknown | 1477 | 0.975 | 4 | 15 | 0 | 0.093 | 0.041 |
| YJL057C | 31366 | | biological_process unknown | 1478 | 0.975 | 4 | 16 | 0 | -0.092 | 0.014 |
| YKR091W | 36007 | SRL3 | nucleobase, nucleoside, nucleo | 1479 | 0.975 | 4 | 16 | 0 | 0.034 | 0.040 |
| YKR003W | 35074 | OSH6 | steroid biosynthesis | 1480 | 0.975 | 4 | 16 | 0 | -0.048 | 0.080 |
| YJL038C | 31384 | | biological_process unknown | 1481 | 0.975 | 4 | 16 | 0 | 0.020 | 0.086 |
| YMR292W | 30879 | GOT1 | ER to Golgi transport* | 1482 | 0.975 | 4 | 16 | 0 | -0.069 | 0.016 |
| YPL013C | 32815 | MRPS16 | protein biosynthesis | 1483 | 0.975 | 4 | 16 | 0 | 0.001 | 0.047 |
| YIL125W | 32284 | KGD1 | tricarboxylic acid cycle* | 1484 | 0.975 | 4 | 15 | 0 | -0.055 | 0.100 |
| YIL041W | 31434 | GVP36 | biological_process unknown | 1485 | 0.975 | 3 | 9 | 0 | | |
| YJL049W | 31374 | | biological_process unknown | 1486 | 0.975 | 4 | 16 | 0 | 0.054 | 0.038 |
| YOR170W | 32426 | | | 1487 | 0.975 | 4 | 11 | 0 | -0.025 | 0.073 |
| YKR098C | 36014 | UBP11 | biological_process unknown | 1488 | 0.975 | 4 | 16 | 0 | -0.004 | 0.048 |
| YLR030W | 36428 | | biological_process unknown | 1489 | 0.975 | 4 | 16 | 0 | 0.073 | 0.084 |
| YER084W | 30224 | | | 1490 | 0.975 | 4 | 16 | 0 | -0.019 | 0.009 |
| YER066C- | 30204 | | | 1491 | 0.975 | 4 | 16 | 0 | 0.024 | 0.020 |
| YDL190C | 33888 | UFD2 | ubiquitin-dependent protein cata | 1492 | 0.975 | 4 | 16 | 0 | -0.002 | 0.052 |
| YIL100W | 32259 | | | 1493 | 0.975 | 4 | 11 | 0 | -0.039 | 0.044 |
| YBR293W | 35741 | | biological_process unknown | 1494 | 0.975 | 4 | 16 | 0 | 0.001 | 0.028 |
| YDR279W | 33638 | RNH202 | biological_process unknown | 1495 | 0.975 | 4 | 16 | 0 | -0.066 | 0.033 |
| YLR227C | 34176 | ADY4 | sporulation | 1496 | 0.975 | 4 | 16 | 0 | -0.084 | 0.038 |
| YHL027W | 30936 | RIM101 | meiosis* | 1497 | 0.975 | 4 | 16 | 0 | -0.047 | 0.049 |
| YGL109W | 34476 | | | 1498 | 0.976 | 4 | 11 | 0 | -0.012 | 0.029 |
| YPL123C | 32129 | RNY1 | cellular morphogenesis | 1499 | 0.976 | 4 | 16 | 0 | -0.002 | 0.063 |
| YFR010W | 35689 | UBP6 | protein deubiquitination | 1500 | 0.976 | 4 | 12 | 0 | -0.008 | 0.033 |
| YCL048W | 33455 | | biological_process unknown | 1501 | 0.976 | 4 | 16 | 0 | -0.010 | 0.045 |
| YBR286W | 35734 | APE3 | vacuolar protein catabolism | 1502 | 0.976 | 4 | 16 | 0 | -0.024 | 0.020 |
| YHR179W | 32873 | OYE2 | biological_process unknown | 1503 | 0.976 | 4 | 16 | 0 | 0.029 | 0.083 |
| YJL012C | 36780 | VTC4 | vacuole fusion (non-autophagic | 1504 | 0.976 | 4 | 16 | 0 | -0.038 | 0.023 |
| YMR207C | 30793 | HFA1 | biological_process unknown | 1505 | 0.976 | 4 | 16 | 0 | -0.062 | 0.030 |
| YKL096W | 34945 | CWP1 | cell wall organization and bioge | 1506 | 0.976 | 4 | 8 | 0 | -0.018 | 0.021 |
| YHL032C | 30931 | GUT1 | glycerol metabolism | 1507 | 0.976 | 4 | 16 | 0 | -0.001 | 0.018 |

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|---|---|---|---|---|---|---|---|---|---|---|
| YPR008W | 37137 | HAA1 | transcription initiation from Pol I | 1508 | 0.976 | 4 | 16 | 0 | -0.055 | 0.028 |
| YDL231C | 33928 | BRE4 | endocytosis | 1509 | 0.976 | 4 | 12 | 0 | 0.048 | 0.108 |
| YDL112W | 33809 | TRM3 | tRNA methylation | 1510 | 0.976 | 4 | 16 | 0 | -0.026 | 0.025 |
| YLR372W | 35281 | SUR4 | sphingolipid biosynthesis* | 1511 | 0.976 | 4 | 8 | 2 | -0.300 | 0.022 |
| YDL234C | 33931 | GYP7 | vesicle-mediated transport | 1512 | 0.976 | 4 | 16 | 0 | -0.030 | 0.061 |
| YPR188C | 35603 | MLC2 | biological_process unknown | 1513 | 0.976 | 4 | 16 | 0 | -0.054 | 0.068 |
| YNL145W | 32931 | MFA2 | signal transduction during conju | 1514 | 0.976 | 4 | 16 | 0 | -0.039 | 0.035 |
| YFL014W | 37070 | HSP12 | response to oxidative stress* | 1515 | 0.976 | 4 | 16 | 0 | -0.052 | 0.049 |
| YFL025C | 35644 | BST1 | ER-associated protein catabolis | 1516 | 0.976 | 4 | 16 | 0 | 0.018 | 0.027 |
| YLR114C | 32725 | | biological_process unknown | 1517 | 0.976 | 4 | 16 | 0 | -0.016 | 0.031 |
| YLR352W | 35261 | | biological_process unknown | 1518 | 0.976 | 4 | 16 | 0 | 0.015 | 0.030 |
| YGR166W | 34796 | KRE11 | ER to Golgi transport | 1519 | 0.976 | 4 | 16 | 0 | -0.037 | 0.031 |
| YMR145C | 30726 | NDE1 | ethanol fermentation* | 1520 | 0.976 | 4 | 16 | 0 | -0.006 | 0.061 |
| YNL010W | 35338 | | biological_process unknown | 1521 | 0.976 | 4 | 16 | 0 | -0.037 | 0.007 |
| YPL191C | 31101 | | biological_process unknown | 1522 | 0.976 | 4 | 16 | 0 | 0.032 | 0.100 |
| YDR475C | 34309 | JIP4 | biological_process unknown | 1523 | 0.976 | 4 | 16 | 0 | -0.070 | 0.036 |
| YGR062C | 34692 | COX18 | cytochrome c oxidase biogenes | 1524 | 0.976 | 4 | 8 | 0 | -0.040 | 0.067 |
| YDR528W | 34362 | HLR1 | cell wall organization and bioge | 1525 | 0.976 | 4 | 16 | 0 | -0.040 | 0.041 |
| YGR138C | 34768 | TPO2 | polyamine transport | 1526 | 0.976 | 4 | 16 | 0 | -0.038 | 0.054 |
| YOR339C | 31636 | UBC11 | protein monoubiquitination* | 1527 | 0.976 | 4 | 16 | 0 | -0.002 | 0.050 |
| YGR041W | 34671 | BUD9 | bud site selection | 1528 | 0.976 | 4 | 16 | 0 | 0.009 | 0.092 |
| YGR275W | 35927 | RTT102 | biological_process unknown | 1529 | 0.976 | 4 | 16 | 0 | -0.047 | 0.039 |
| YMR318C | 36460 | ADH6 | aldehyde metabolism* | 1530 | 0.976 | 4 | 16 | 0 | -0.025 | 0.084 |
| YLR341W | 35250 | SPO77 | sporulation (sensu Saccharomy | 1531 | 0.976 | 4 | 15 | 0 | -0.002 | 0.088 |
| YGR139W | 34769 | | | 1532 | 0.976 | 4 | 16 | 0 | -0.025 | 0.015 |
| YCR101C | 35818 | | biological_process unknown | 1533 | 0.976 | 4 | 12 | 0 | -0.091 | 0.085 |
| YGL258W | 34625 | VEL1 | biological_process unknown | 1534 | 0.976 | 4 | 16 | 0 | -0.055 | 0.056 |
| YCR020C | 33501 | MAK31 | virus-host interaction* | 1535 | 0.976 | 4 | 16 | 0 | -0.060 | 0.063 |
| YMR109W | 36549 | MYO5 | cell wall organization and bioge | 1536 | 0.976 | 4 | 16 | 0 | -0.028 | 0.022 |
| YJL182C | 31244 | | | 1537 | 0.976 | 4 | 16 | 0 | -0.027 | 0.038 |
| YNL249C | 31195 | MPA43 | biological_process unknown | 1538 | 0.976 | 4 | 16 | 0 | -0.010 | 0.034 |
| YBL054W | 33080 | | biological_process unknown | 1539 | 0.976 | 4 | 8 | 0 | -0.024 | 0.008 |
| YOR028C | 31804 | CIN5 | regulation of transcription from I | 1540 | 0.977 | 4 | 11 | 0 | 0.015 | 0.010 |
| YGL012W | 34380 | ERG4 | ergosterol biosynthesis | 1541 | 0.977 | 4 | 11 | 0 | -0.007 | 0.011 |
| YGR127W | 34757 | | biological_process unknown | 1542 | 0.977 | 4 | 16 | 0 | -0.018 | 0.053 |
| YPL227C | 31065 | ALG5 | N-linked glycosylation | 1543 | 0.977 | 4 | 16 | 0 | 0.012 | 0.059 |
| YJR100C | 36912 | | biological_process unknown | 1544 | 0.977 | 4 | 16 | 0 | -0.004 | 0.024 |
| YML100W | 36498 | TSL1 | response to stress* | 1545 | 0.977 | 4 | 16 | 0 | 0.024 | 0.054 |
| YBL091C | 33117 | MAP2 | proteolysis and peptidolysis | 1546 | 0.977 | 4 | 16 | 0 | -0.020 | 0.031 |
| YDR524C | 34358 | AGE1 | ER to Golgi transport* | 1547 | 0.977 | 4 | 15 | 0 | -0.040 | 0.015 |
| YMR180C | 30765 | CTL1 | RNA processing | 1548 | 0.977 | 4 | 16 | 0 | 0.020 | 0.028 |
| YHR130C | 31958 | | | 1549 | 0.977 | 4 | 16 | 0 | -0.039 | 0.039 |
| YFL035C- | 35656 | | | 1550 | 0.977 | 4 | 16 | 0 | -0.061 | 0.034 |
| YCR100C | 35817 | | biological_process unknown | 1551 | 0.977 | 4 | 16 | 0 | -0.051 | 0.090 |
| YBR067C | 33204 | TIP1 | cell wall organization and bioge | 1552 | 0.977 | 4 | 16 | 0 | 0.001 | 0.061 |
| YMR147W | 30728 | | biological_process unknown | 1553 | 0.977 | 4 | 16 | 0 | -0.031 | 0.051 |
| YBR276C | 37171 | PPS1 | vitamin B12 reduction* | 1554 | 0.977 | 4 | 16 | 0 | -0.031 | 0.032 |
| YLR297W | 35207 | | biological_process unknown | 1555 | 0.977 | 4 | 16 | 0 | -0.073 | 0.077 |
| YGR244C | 35897 | LSC2 | tricarboxylic acid cycle* | 1556 | 0.977 | 4 | 16 | 0 | -0.010 | 0.040 |
| YDL154W | 33852 | MSH5 | meiotic recombination | 1557 | 0.977 | 4 | 16 | 0 | 0.014 | 0.039 |
| YLR284C | 35193 | ECI1 | fatty acid beta-oxidation | 1558 | 0.977 | 4 | 16 | 0 | -0.078 | 0.060 |
| YBR222C | 33362 | PCS60 | biological_process unknown | 1559 | 0.977 | 4 | 12 | 0 | -0.061 | 0.069 |

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|---|---|---|---|---|---|---|---|---|---|---|
| YML001W | 30575 | YPT7 | vesicle-mediated transport* | 1560 | 0.977 | 4 | 8 | 0 | 0.043 | 0.041 |
| YGR087C | 34717 | PDC6 | ethanol metabolism | 1561 | 0.977 | 4 | 16 | 0 | -0.014 | 0.055 |
| YBR175W | 33315 | SWD3 | chromatin silencing at telomere | 1562 | 0.977 | 4 | 16 | 0 | 0.028 | 0.039 |
| YCR089W | 37200 | FIG2 | cellular morphogenesis during c | 1563 | 0.977 | 4 | 16 | 0 | -0.010 | 0.054 |
| YMR172W | 36957 | HOT1 | regulation of transcription from I | 1564 | 0.977 | 4 | 16 | 0 | -0.046 | 0.031 |
| YGR149W | 34779 | | biological_process unknown | 1565 | 0.977 | 4 | 16 | 0 | -0.058 | 0.027 |
| YER124C | 36123 | DSE1 | cell wall organization and bioge | 1566 | 0.977 | 4 | 16 | 0 | -0.051 | 0.066 |
| YNL242W | 31970 | ATG2 | protein-vacuolar targeting* | 1567 | 0.977 | 4 | 16 | 0 | 0.016 | 0.041 |
| YNL286W | 31158 | CUS2 | nuclear mRNA splicing, via splic | 1568 | 0.977 | 4 | 16 | 0 | -0.024 | 0.028 |
| YNL271C | 31173 | BNI1 | establishment of cell polarity (se | 1569 | 0.977 | 4 | 8 | 0 | 0.025 | 0.028 |
| YBL060W | 33086 | | biological_process unknown | 1570 | 0.977 | 4 | 16 | 0 | -0.022 | 0.043 |
| YGL177W | 34544 | | | 1571 | 0.977 | 4 | 16 | 0 | -0.021 | 0.038 |
| YPR011C | 37399 | | transport | 1572 | 0.977 | 4 | 16 | 0 | -0.051 | 0.018 |
| YNL044W | 35369 | YIP3 | ER to Golgi transport | 1573 | 0.977 | 4 | 16 | 0 | -0.050 | 0.075 |
| YKL103C | 34953 | LAP4 | vacuolar protein catabolism | 1574 | 0.977 | 4 | 16 | 0 | -0.085 | 0.046 |
| YLR095C | 32706 | IOC2 | chromatin modeling | 1575 | 0.977 | 4 | 16 | 0 | -0.012 | 0.080 |
| YDR265W | 33624 | PEX10 | peroxisome organization and bi | 1576 | 0.977 | 4 | 16 | 0 | 0.022 | 0.042 |
| YMR215W | 30801 | GAS3 | biological_process unknown | 1577 | 0.977 | 4 | 12 | 0 | -0.010 | 0.014 |
| YNL094W | 32982 | APP1 | actin cytoskeleton organization | 1578 | 0.977 | 4 | 16 | 0 | -0.017 | 0.025 |
| YJL169W | 31256 | | | 1579 | 0.978 | 4 | 16 | 0 | 0.119 | 0.044 |
| YLR364W | 35273 | | biological_process unknown | 1580 | 0.978 | 4 | 12 | 0 | 0.012 | 0.030 |
| YHR159W | 32853 | | biological_process unknown | 1581 | 0.978 | 4 | 15 | 0 | -0.031 | 0.052 |
| YKL222C | 35071 | | biological_process unknown | 1582 | 0.978 | 4 | 16 | 0 | -0.069 | 0.082 |
| YPL152W | 32100 | RRD2 | response to osmotic stress* | 1583 | 0.978 | 4 | 16 | 0 | 0.038 | 0.028 |
| YCL049C | 33456 | | biological_process unknown | 1584 | 0.978 | 4 | 16 | 0 | -0.037 | 0.038 |
| YNL264C | 31180 | PDR17 | response to drug* | 1585 | 0.978 | 4 | 16 | 0 | 0.066 | 0.028 |
| YDR263C | 33622 | DIN7 | DNA repair | 1586 | 0.978 | 4 | 16 | 0 | 0.005 | 0.049 |
| YKR049C | 35120 | | biological_process unknown | 1587 | 0.978 | 4 | 16 | 0 | -0.094 | 0.055 |
| YDL121C | 33818 | | biological_process unknown | 1588 | 0.978 | 4 | 16 | 0 | -0.025 | 0.041 |
| YKR061W | 35132 | KTR2 | N-linked glycosylation* | 1589 | 0.978 | 4 | 16 | 0 | -0.057 | 0.068 |
| YLR204W | 34153 | QRI5 | biological_process unknown | 1590 | 0.978 | 4 | 16 | 0 | -0.162 | 0.049 |
| YBL037W | 33063 | APL3 | vesicle-mediated transport | 1591 | 0.978 | 4 | 16 | 0 | -0.025 | 0.042 |
| YHR087W | 31915 | | biological_process unknown | 1592 | 0.978 | 4 | 16 | 0 | -0.086 | 0.025 |
| YJL170C | 31255 | ASG7 | conjugation with cellular fusion | 1593 | 0.978 | 4 | 16 | 0 | 0.045 | 0.026 |
| YKL033W | 35978 | | biological_process unknown | 1594 | 0.978 | 4 | 16 | 0 | 0.018 | 0.101 |
| YNL122C | 32954 | | biological_process unknown | 1595 | 0.978 | 4 | 16 | 0 | -0.064 | 0.067 |
| YJL052W | 31371 | TDH1 | gluconeogenesis* | 1596 | 0.978 | 4 | 16 | 0 | -0.032 | 0.039 |
| YER166W | 36162 | DNF1 | intracellular protein transport | 1597 | 0.978 | 4 | 16 | 0 | -0.063 | 0.015 |
| YER158C | 36155 | | biological_process unknown | 1598 | 0.978 | 4 | 16 | 0 | 0.001 | 0.028 |
| YBL075C | 33101 | SSA3 | response to stress* | 1599 | 0.978 | 4 | 12 | 0 | -0.039 | 0.033 |
| YMR015C | 30590 | ERG5 | ergosterol biosynthesis | 1600 | 0.978 | 4 | 8 | 0 | 0.059 | 0.055 |
| YPL225W | 31067 | | biological_process unknown | 1601 | 0.978 | 4 | 16 | 0 | 0.022 | 0.019 |
| YOL101C | 36251 | | biological_process unknown | 1602 | 0.978 | 4 | 8 | 0 | -0.006 | 0.004 |
| YGR037C | 34667 | ACB1 | fatty acid metabolism* | 1603 | 0.978 | 3 | 6 | 0 | | |
| YPL155C | 32097 | KIP2 | nuclear migration (sensu Sacch | 1604 | 0.978 | 4 | 16 | 0 | -0.039 | 0.027 |
| YGL153W | 34520 | PEX14 | protein-peroxisome targeting | 1605 | 0.978 | 4 | 16 | 0 | -0.036 | 0.041 |
| YMR274C | 30860 | RCE1 | protein processing* | 1606 | 0.978 | 4 | 16 | 0 | -0.024 | 0.033 |
| YDR151C | 33509 | CTH1 | biological_process unknown | 1607 | 0.978 | 4 | 16 | 0 | -0.046 | 0.032 |
| YER185W | 36181 | | biological_process unknown | 1608 | 0.978 | 4 | 16 | 0 | -0.008 | 0.038 |
| YOR242C | 32498 | SSP2 | spore wall assembly (sensu Sac | 1609 | 0.978 | 4 | 16 | 0 | -0.042 | 0.048 |
| YOL037C | 31728 | | | 1610 | 0.978 | 4 | 16 | 0 | -0.068 | 0.091 |
| YMR191W | 37314 | | biological_process unknown | 1611 | 0.978 | 4 | 16 | 0 | -0.034 | 0.038 |

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|---|---|---|---|---|---|---|---|---|---|---|
| YGL081W | 34448 | | biological_process unknown | 1612 | 0.978 | 4 | 16 | 0 | -0.032 | 0.045 |
| YHR096C | 31924 | HXT5 | hexose transport | 1613 | 0.978 | 4 | 16 | 0 | -0.033 | 0.045 |
| YJR125C | 36928 | ENT3 | actin filament organization* | 1614 | 0.978 | 4 | 8 | 0 | -0.034 | 0.013 |
| YDR100W | 34035 | TVP15 | biological_process unknown | 1615 | 0.978 | 4 | 12 | 0 | -0.068 | 0.046 |
| YER057C | 30193 | HMF1 | biological_process unknown | 1616 | 0.978 | 4 | 16 | 0 | -0.015 | 0.033 |
| YMR085W | 36219 | | biological_process unknown | 1617 | 0.978 | 4 | 16 | 0 | -0.018 | 0.022 |
| YGR292W | 37296 | MAL12 | maltose catabolism | 1618 | 0.978 | 4 | 16 | 0 | -0.047 | 0.061 |
| YKL163W | 35013 | PIR3 | cell wall organization and bioge | 1619 | 0.979 | 4 | 16 | 0 | -0.055 | 0.069 |
| YIL011W | 31403 | TIR3 | biological_process unknown | 1620 | 0.979 | 4 | 16 | 0 | 0.016 | 0.017 |
| YLR432W | 36035 | IMD3 | GTP biosynthesis | 1621 | 0.979 | 4 | 16 | 0 | -0.087 | 0.053 |
| YBR294W | 37176 | SUL1 | sulfate transport | 1622 | 0.979 | 4 | 16 | 0 | -0.041 | 0.022 |
| YBR086C | 33224 | IST2 | response to osmotic stress | 1623 | 0.979 | 4 | 16 | 0 | -0.043 | 0.025 |
| YOR365C | 31662 | | biological_process unknown | 1624 | 0.979 | 4 | 16 | 0 | -0.029 | 0.027 |
| YFR055W | 35869 | | copper ion homeostasis* | 1625 | 0.979 | 4 | 16 | 0 | -0.071 | 0.032 |
| YKL157W | 35007 | APE2 | peptide metabolism | 1626 | 0.979 | 4 | 16 | 0 | -0.051 | 0.061 |
| YML038C | 36726 | YMD8 | nucleotide-sugar transport | 1627 | 0.979 | 4 | 16 | 0 | 0.030 | 0.044 |
| YPR087W | 35504 | VPS69 | protein-vacuolar targeting | 1628 | 0.979 | 4 | 11 | 0 | -0.070 | 0.057 |
| YIL064W | 31457 | | biological_process unknown | 1629 | 0.979 | 4 | 16 | 0 | -0.108 | 0.034 |
| YDR110W | 34044 | FOB1 | DNA recombination* | 1630 | 0.979 | 4 | 16 | 0 | -0.006 | 0.041 |
| YJR149W | 32627 | | biological_process unknown | 1631 | 0.979 | 4 | 16 | 0 | 0.001 | 0.091 |
| YNR034W | 35409 | SOL1 | tRNA processing | 1632 | 0.979 | 4 | 16 | 0 | -0.080 | 0.052 |
| YOR266W | 37324 | PNT1 | inner mitochondrial membrane ( | 1633 | 0.979 | 4 | 16 | 0 | -0.015 | 0.011 |
| YDL202W | 33900 | MRPL11 | protein biosynthesis | 1634 | 0.979 | 3 | 6 | 0 | | |
| YLR300W | 35210 | EXG1 | cell wall organization and bioge | 1635 | 0.979 | 4 | 16 | 0 | -0.123 | 0.045 |
| YOL084W | 31775 | PHM7 | biological_process unknown | 1636 | 0.979 | 4 | 16 | 0 | 0.003 | 0.027 |
| YPR097W | 35514 | | biological_process unknown | 1637 | 0.979 | 4 | 15 | 0 | -0.003 | 0.011 |
| YCR015C | 33495 | | biological_process unknown | 1638 | 0.979 | 4 | 16 | 0 | -0.053 | 0.045 |
| YPR172W | 35587 | | biological_process unknown | 1639 | 0.979 | 4 | 16 | 0 | -0.067 | 0.037 |
| YLR416C | 35324 | | | 1640 | 0.979 | 4 | 16 | 0 | -0.014 | 0.042 |
| YIR036C | 35971 | | biological_process unknown | 1641 | 0.979 | 4 | 16 | 0 | -0.030 | 0.049 |
| YEL018W | 30259 | EAF5 | biological_process unknown | 1642 | 0.979 | 4 | 16 | 0 | -0.035 | 0.025 |
| YMR081C | 36215 | ISF1 | aerobic respiration | 1643 | 0.979 | 4 | 16 | 0 | -0.045 | 0.063 |
| YCR076C | 35796 | | biological_process unknown | 1644 | 0.979 | 4 | 16 | 0 | -0.025 | 0.036 |
| YIR018W | 35952 | YAP5 | positive regulation of transcripti | 1645 | 0.979 | 4 | 16 | 0 | -0.047 | 0.026 |
| YOR002W | 31778 | ALG6 | protein amino acid glycosylatior | 1646 | 0.979 | 4 | 16 | 0 | 0.038 | 0.019 |
| YPR167C | 35582 | MET16 | methionine metabolism* | 1647 | 0.979 | 4 | 16 | 0 | -0.070 | 0.052 |
| YPL108W | 32144 | | biological_process unknown | 1648 | 0.979 | 4 | 16 | 0 | -0.051 | 0.034 |
| YFL050C | 35671 | ALR2 | di-, tri-valent inorganic cation tra | 1649 | 0.979 | 4 | 16 | 0 | -0.086 | 0.061 |
| YGR136W | 34766 | LSB1 | biological_process unknown | 1650 | 0.979 | 4 | 16 | 0 | -0.013 | 0.044 |
| YDR530C | 34364 | APA2 | nucleotide metabolism | 1651 | 0.979 | 4 | 16 | 0 | -0.035 | 0.026 |
| YGL152C | 34519 | | | 1652 | 0.979 | 4 | 16 | 0 | 0.079 | 0.197 |
| YLR206W | 34155 | ENT2 | actin filament organization* | 1653 | 0.979 | 4 | 16 | 0 | -0.071 | 0.027 |
| YKL132C | 34982 | RMA1 | biological_process unknown | 1654 | 0.979 | 4 | 16 | 0 | -0.006 | 0.047 |
| YFL031W | 35650 | HAC1 | regulation of transcription from I | 1655 | 0.979 | 4 | 16 | 0 | -0.024 | 0.052 |
| YDR534C | 34368 | FIT1 | siderochrome transport | 1656 | 0.979 | 4 | 16 | 0 | -0.061 | 0.051 |
| YDR402C | 34238 | DIT2 | spore wall assembly (sensu Sac | 1657 | 0.979 | 4 | 12 | 0 | -0.043 | 0.013 |
| YMR315W | 36455 | | biological_process unknown | 1658 | 0.979 | 4 | 16 | 0 | 0.005 | 0.025 |
| YCL026C | 33433 | | | 1659 | 0.979 | 4 | 8 | 0 | -0.050 | 0.056 |
| YLR446W | 36050 | | biological_process unknown | 1660 | 0.979 | 4 | 16 | 0 | -0.048 | 0.058 |
| YNR056C | 36083 | BIO5 | biotin biosynthesis* | 1661 | 0.979 | 4 | 16 | 0 | -0.001 | 0.020 |
| YBR125C | 37163 | PTC4 | biological_process unknown | 1662 | 0.979 | 4 | 16 | 0 | -0.047 | 0.037 |
| YOR152C | 32408 | | biological_process unknown | 1663 | 0.979 | 4 | 16 | 0 | -0.026 | 0.025 |

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|---|---|---|---|---|---|---|---|---|---|
| YBL085W | 33111 | BOI1 | establishment of cell polarity (se | 1664 | 0.979 | 4 | 16 | 0 | -0.024 | 0.036 |
| YOR345C | 31642 | | | 1665 | 0.979 | 4 | 16 | 0 | 0.023 | 0.071 |
| YKR051W | 35122 | | biological_process unknown | 1666 | 0.979 | 4 | 16 | 0 | -0.045 | 0.074 |
| YLL025W | 31513 | | biological_process unknown | 1667 | 0.979 | 4 | 8 | 0 | -0.044 | 0.026 |
| YER024W | 30156 | YAT2 | alcohol metabolism* | 1668 | 0.979 | 4 | 16 | 0 | 0.043 | 0.046 |
| YKL001C | 34849 | MET14 | methionine metabolism* | 1669 | 0.979 | 4 | 8 | 0 | -0.026 | 0.067 |
| YHR079C | 31907 | IRE1 | protein amino acid phosphoryla | 1670 | 0.979 | 4 | 16 | 0 | -0.002 | 0.037 |
| YDL233W | 33930 | | biological_process unknown | 1671 | 0.979 | 4 | 16 | 0 | -0.069 | 0.030 |
| YPR036W | 35455 | VMA13 | vacuolar acidification | 1672 | 0.979 | 3 | 6 | 0 | | |
| YIL145C | 32304 | PAN6 | pantothenate biosynthesis | 1673 | 0.980 | 4 | 16 | 0 | -0.006 | 0.021 |
| YIR002C | 32338 | MPH1 | DNA repair | 1674 | 0.980 | 4 | 16 | 0 | 0.005 | 0.040 |
| YLR257W | 35166 | | biological_process unknown | 1675 | 0.980 | 4 | 16 | 0 | -0.057 | 0.009 |
| YGR054W | 34684 | | translational initiation | 1676 | 0.980 | 4 | 15 | 0 | -0.082 | 0.045 |
| YNR057C | 36084 | BIO4 | biotin biosynthesis | 1677 | 0.980 | 4 | 16 | 0 | -0.080 | 0.023 |
| YPL138C | 32114 | SPP1 | regulation of transcription, DNA | 1678 | 0.980 | 4 | 16 | 0 | -0.054 | 0.062 |
| YER110C | 36108 | KAP123 | protein-nucleus import | 1679 | 0.980 | 4 | 11 | 0 | 0.008 | 0.029 |
| YBR078W | 33215 | ECM33 | cell wall organization and bioge | 1680 | 0.980 | 4 | 16 | 0 | -0.005 | 0.028 |
| YDL033C | 33729 | | biological_process unknown | 1681 | 0.980 | 4 | 8 | 0 | -0.004 | 0.034 |
| YHR017W | 36411 | YSC83 | biological_process unknown | 1682 | 0.980 | 4 | 16 | 0 | -0.020 | 0.041 |
| YKL155C | 35005 | RSM22 | protein biosynthesis | 1683 | 0.980 | 4 | 16 | 0 | 0.096 | 0.062 |
| YDR098C | 34033 | GRX3 | response to oxidative stress | 1684 | 0.980 | 4 | 16 | 0 | -0.055 | 0.068 |
| YNL311C | 31133 | | ubiquitin-dependent protein cata | 1685 | 0.980 | 4 | 16 | 0 | 0.006 | 0.038 |
| YBL091C- | 35716 | SCS22 | biological_process unknown | 1686 | 0.980 | 4 | 12 | 0 | -0.159 | 0.050 |
| YKR020W | 35091 | VPS51 | protein-vacuolar targeting* | 1687 | 0.980 | 4 | 8 | 0 | -0.075 | 0.005 |
| YPL186C | 32067 | UIP4 | biological_process unknown | 1688 | 0.980 | 4 | 15 | 0 | 0.011 | 0.108 |
| YKL190W | 35040 | CNB1 | cell wall organization and bioge | 1689 | 0.980 | 4 | 16 | 0 | -0.020 | 0.046 |
| YNR061C | 36088 | | biological_process unknown | 1690 | 0.980 | 4 | 16 | 0 | -0.058 | 0.056 |
| YNL279W | 36468 | PRM1 | plasma membrane fusion | 1691 | 0.980 | 4 | 16 | 0 | 0.073 | 0.032 |
| YLR390W | 35299 | ECM19 | cell wall organization and bioge | 1692 | 0.980 | 4 | 16 | 0 | -0.037 | 0.036 |
| YIR024C | 35959 | | biological_process unknown | 1693 | 0.980 | 4 | 16 | 0 | -0.088 | 0.089 |
| YLR077W | 32688 | | biological_process unknown | 1694 | 0.980 | 4 | 16 | 0 | -0.010 | 0.052 |
| YNR063W | 36090 | | biological_process unknown | 1695 | 0.980 | 4 | 16 | 0 | -0.026 | 0.060 |
| YER115C | 36113 | SPR6 | sporulation (sensu Fungi) | 1696 | 0.980 | 4 | 16 | 0 | 0.005 | 0.059 |
| YBR085W | 33223 | AAC3 | ATP/ADP exchange | 1697 | 0.980 | 4 | 8 | 0 | -0.017 | 0.009 |
| YJL147C | 31278 | | biological_process unknown | 1698 | 0.980 | 4 | 16 | 0 | 0.012 | 0.011 |
| YPR096C | 35513 | | | 1699 | 0.980 | 4 | 16 | 0 | -0.027 | 0.063 |
| YER114C | 36112 | BOI2 | establishment of cell polarity (se | 1700 | 0.980 | 4 | 16 | 0 | 0.019 | 0.053 |
| YOR211C | 32467 | MGM1 | mitochondrion organization and | 1701 | 0.980 | 3 | 9 | 0 | | |
| YDR496C | 34330 | PUF6 | biological_process unknown | 1702 | 0.980 | 4 | 12 | 0 | -0.103 | 0.051 |
| YER071C | 30211 | | biological_process unknown | 1703 | 0.980 | 4 | 16 | 0 | 0.024 | 0.046 |
| YMR017W | 30592 | SPO20 | nonselective vesicle fusion* | 1704 | 0.980 | 4 | 8 | 0 | 0.061 | 0.052 |
| YJR082C | 32559 | EAF6 | biological_process unknown | 1705 | 0.980 | 4 | 16 | 0 | 0.041 | 0.048 |
| YOR133W | 32389 | EFT1 | translational elongation | 1706 | 0.980 | 4 | 16 | 0 | -0.020 | 0.111 |
| YJL151C | 37007 | SNA3 | biological_process unknown | 1707 | 0.980 | 4 | 16 | 0 | -0.047 | 0.023 |
| YOR350C | 31647 | MNE1 | biological_process unknown | 1708 | 0.980 | 4 | 16 | 0 | -0.050 | 0.035 |
| YGR025W | 34655 | | | 1709 | 0.980 | 4 | 16 | 0 | -0.053 | 0.046 |
| YFL063W | 37364 | | | 1710 | 0.980 | 4 | 16 | 0 | -0.063 | 0.039 |
| YER010C | 30332 | | biological_process unknown | 1711 | 0.980 | 4 | 12 | 0 | -0.060 | 0.052 |
| YBR249C | 33389 | ARO4 | aromatic amino acid family bios | 1712 | 0.980 | 4 | 16 | 0 | -0.033 | 0.018 |
| YDR030C | 33969 | RAD28 | DNA repair | 1713 | 0.980 | 4 | 16 | 0 | -0.033 | 0.032 |
| YER144C | 35842 | UBP5 | protein deubiquitination | 1714 | 0.980 | 4 | 16 | 0 | -0.059 | 0.052 |
| YKL179C | 35029 | COY1 | biological_process unknown | 1715 | 0.981 | 4 | 16 | 0 | -0.051 | 0.038 |

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|---|---|---|---|---|---|---|---|---|---|---|
| YDL070W | 33767 | BDF2 | biological_process unknown | 1716 | 0.981 | 4 | 15 | 0 | 0.042 | 0.055 |
| YBR273C | 35721 | | biological_process unknown | 1717 | 0.981 | 4 | 8 | 0 | -0.096 | 0.023 |
| YGL140C | 34507 | | biological_process unknown | 1718 | 0.981 | 4 | 16 | 0 | 0.044 | 0.099 |
| YML057W | 30513 | CMP2 | cell ion homeostasis* | 1719 | 0.981 | 4 | 8 | 0 | -0.011 | 0.021 |
| YML056C | 30515 | IMD4 | biological_process unknown | 1720 | 0.981 | 3 | 6 | 0 | | |
| YBR176W | 33316 | ECM31 | pantothenate biosynthesis | 1721 | 0.981 | 4 | 8 | 0 | 0.029 | 0.035 |
| YOR099W | 32355 | KTR1 | O-linked glycosylation* | 1722 | 0.981 | 4 | 16 | 0 | 0.017 | 0.023 |
| YPL264C | 31028 | | biological_process unknown | 1723 | 0.981 | 4 | 16 | 0 | -0.023 | 0.033 |
| YGL256W | 34623 | ADH4 | fermentation | 1724 | 0.981 | 4 | 16 | 0 | -0.012 | 0.054 |
| YKL130C | 34980 | SHE2 | mRNA localization, intracellular | 1725 | 0.981 | 4 | 16 | 0 | -0.039 | 0.025 |
| YOL020W | 31711 | TAT2 | aromatic amino acid transport | 1726 | 0.981 | 4 | 16 | 0 | -0.023 | 0.052 |
| YBL021C | 33047 | HAP3 | transcription* | 1727 | 0.981 | 4 | 16 | 0 | 0.007 | 0.037 |
| YCR085W | 35803 | | | 1728 | 0.981 | 4 | 16 | 0 | -0.015 | 0.045 |
| YLR084C | 32695 | RAX2 | bud site selection | 1729 | 0.981 | 4 | 8 | 0 | -0.054 | 0.027 |
| YHR131C | 36625 | | biological_process unknown | 1730 | 0.981 | 4 | 16 | 0 | 0.007 | 0.022 |
| YLR387C | 35296 | | biological_process unknown | 1731 | 0.981 | 4 | 16 | 0 | 0.000 | 0.035 |
| YKL102C | 34952 | | | 1732 | 0.981 | 4 | 16 | 0 | -0.034 | 0.048 |
| YEL001C | 30241 | | biological_process unknown | 1733 | 0.981 | 4 | 16 | 0 | -0.002 | 0.040 |
| YML051W | 30520 | GAL80 | regulation of transcription, DNA | 1734 | 0.981 | 4 | 8 | 0 | -0.040 | 0.006 |
| YMR137C | 36743 | PSO2 | DNA repair* | 1735 | 0.981 | 4 | 16 | 0 | -0.005 | 0.033 |
| YMR320W | 36462 | | | 1736 | 0.981 | 4 | 16 | 0 | -0.041 | 0.031 |
| YEL030W | 30271 | ECM10 | protein-mitochondrial targeting | 1737 | 0.981 | 4 | 16 | 0 | -0.054 | 0.050 |
| YPL258C | 31034 | THI21 | thiamin biosynthesis | 1738 | 0.981 | 4 | 16 | 0 | 0.003 | 0.014 |
| YGR112W | 34742 | SHY1 | respiratory gaseous exchange | 1739 | 0.981 | 4 | 16 | 0 | -0.038 | 0.063 |
| YDR020C | 33959 | | biological_process unknown | 1740 | 0.981 | 4 | 16 | 0 | 0.028 | 0.032 |
| YLR016C | 31571 | | biological_process unknown | 1741 | 0.981 | 4 | 16 | 0 | -0.009 | 0.046 |
| YBL055C | 33081 | | biological_process unknown | 1742 | 0.981 | 4 | 16 | 0 | -0.031 | 0.047 |
| YFR039C | 36975 | | biological_process unknown | 1743 | 0.981 | 4 | 16 | 0 | 0.002 | 0.074 |
| YOR338W | 31635 | | biological_process unknown | 1744 | 0.981 | 4 | 16 | 0 | 0.000 | 0.021 |
| YEL072W | 30314 | RMD6 | biological_process unknown | 1745 | 0.981 | 4 | 16 | 0 | 0.004 | 0.019 |
| YMR177W | 30762 | MMT1 | iron ion homeostasis | 1746 | 0.981 | 4 | 16 | 0 | -0.060 | 0.054 |
| YCL055W | 33462 | KAR4 | meiosis* | 1747 | 0.981 | 4 | 15 | 0 | 0.000 | 0.078 |
| YEL017C- | 30257 | PMP2 | cation transport | 1748 | 0.981 | 4 | 16 | 0 | -0.011 | 0.018 |
| YOR079C | 31855 | ATX2 | manganese ion homeostasis | 1749 | 0.981 | 4 | 16 | 0 | 0.013 | 0.054 |
| YDR255C | 33614 | RMD5 | negative regulation of gluconeo | 1750 | 0.981 | 4 | 15 | 0 | -0.070 | 0.025 |
| YKR036C | 37048 | CAF4 | regulation of transcription, DNA | 1751 | 0.981 | 4 | 16 | 0 | -0.028 | 0.020 |
| YJR111C | 32589 | | biological_process unknown | 1752 | 0.981 | 4 | 16 | 0 | -0.056 | 0.044 |
| YNL335W | 31109 | | | 1753 | 0.981 | 4 | 16 | 0 | -0.012 | 0.064 |
| YGL181W | 34548 | GTS1 | sporulation (sensu Saccharomy | 1754 | 0.981 | 4 | 15 | 0 | -0.018 | 0.081 |
| YAR028W | 30420 | | biological_process unknown | 1755 | 0.981 | 4 | 8 | 0 | -0.051 | 0.003 |
| YMR196W | 30782 | | biological_process unknown | 1756 | 0.981 | 4 | 16 | 0 | 0.048 | 0.012 |
| YGR207C | 34837 | | biological_process unknown | 1757 | 0.981 | 4 | 16 | 0 | -0.028 | 0.062 |
| YBL042C | 33068 | FUI1 | uridine transport | 1758 | 0.981 | 4 | 16 | 0 | 0.122 | 0.078 |
| YLL014W | 31502 | | biological_process unknown | 1759 | 0.981 | 4 | 15 | 0 | -0.009 | 0.041 |
| YLL054C | 31542 | | biological_process unknown | 1760 | 0.981 | 4 | 16 | 0 | 0.000 | 0.030 |
| YLR209C | 34158 | PNP1 | purine nucleoside catabolism | 1761 | 0.981 | 4 | 16 | 0 | -0.037 | 0.051 |
| YER027C | 36694 | GAL83 | protein amino acid phosphoryla | 1762 | 0.981 | 4 | 16 | 0 | -0.022 | 0.069 |
| YLR097C | 32708 | HRT3 | biological_process unknown | 1763 | 0.982 | 4 | 16 | 0 | -0.011 | 0.040 |
| YFR009W | 35688 | GCN20 | regulation of translational elong | 1764 | 0.982 | 4 | 16 | 0 | 0.000 | 0.026 |
| YMR158W | 30741 | | | 1765 | 0.982 | 4 | 16 | 0 | -0.041 | 0.073 |
| YJR052W | 36850 | RAD7 | nucleotide-excision repair, DNA | 1766 | 0.982 | 4 | 16 | 0 | 0.034 | 0.029 |
| YDR452W | 34286 | PPN1 | polyphosphate metabolism | 1767 | 0.982 | 4 | 16 | 0 | 0.039 | 0.090 |

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|---|---|---|---|---|---|---|---|---|---|---|
| YML076C | 36734 | WAR1 | response to acid | 1768 | 0.982 | 4 | 16 | 0 | 0.002 | 0.024 |
| YER056C | 30191 | FCY2 | purine transport* | 1769 | 0.982 | 4 | 16 | 0 | 0.052 | 0.031 |
| YBR010W | 33145 | HHT1 | chromatin assembly/disassemb | 1770 | 0.982 | 4 | 16 | 0 | 0.017 | 0.059 |
| YPL077C | 32751 | | biological_process unknown | 1771 | 0.982 | 4 | 16 | 0 | -0.005 | 0.027 |
| YMR067C | 36200 | | biological_process unknown | 1772 | 0.982 | 4 | 8 | 0 | 0.041 | 0.008 |
| YOR047C | 31823 | STD1 | regulation of transcription from I | 1773 | 0.982 | 4 | 16 | 0 | 0.040 | 0.039 |
| YIR013C | 32349 | GAT4 | transcription | 1774 | 0.982 | 4 | 16 | 0 | -0.008 | 0.027 |
| YOR192C | 32448 | | transport | 1775 | 0.982 | 4 | 16 | 0 | 0.034 | 0.015 |
| YOR017W | 31793 | PET127 | RNA processing | 1776 | 0.982 | 4 | 16 | 0 | -0.018 | 0.029 |
| YGL138C | 34505 | | biological_process unknown | 1777 | 0.982 | 4 | 16 | 0 | 0.038 | 0.050 |
| YGR178C | 34808 | PBP1 | mRNA polyadenylation | 1778 | 0.982 | 4 | 16 | 0 | -0.039 | 0.061 |
| YIL108W | 32267 | | biological_process unknown | 1779 | 0.982 | 4 | 16 | 0 | -0.040 | 0.028 |
| YLL030C | 36423 | | | 1780 | 0.982 | 4 | 16 | 0 | -0.029 | 0.014 |
| YDR458C | 34292 | | biological_process unknown | 1781 | 0.982 | 4 | 12 | 0 | 0.052 | 0.078 |
| YPR009W | 35428 | SUT2 | regulation of transcription from I | 1782 | 0.982 | 4 | 16 | 0 | -0.105 | 0.047 |
| YHR033W | 30996 | | biological_process unknown | 1783 | 0.982 | 4 | 16 | 0 | 0.024 | 0.028 |
| YDR481C | 34315 | PHO8 | protein amino acid dephosphory | 1784 | 0.982 | 4 | 15 | 0 | -0.007 | 0.071 |
| YDL038C | 33734 | | biological_process unknown | 1785 | 0.982 | 4 | 12 | 0 | -0.020 | 0.071 |
| YBR271W | 35719 | | biological_process unknown | 1786 | 0.982 | 4 | 12 | 0 | -0.003 | 0.069 |
| YDR071C | 36691 | PAA1 | biological_process unknown | 1787 | 0.982 | 4 | 16 | 0 | -0.080 | 0.038 |
| YER044C | 30178 | MEI4 | meiotic recombination* | 1788 | 0.982 | 4 | 16 | 0 | -0.044 | 0.017 |
| YMR068W | 36201 | AVO2 | regulation of cell growth | 1789 | 0.982 | 4 | 14 | 0 | -0.036 | 0.049 |
| YFL033C | 37281 | RIM15 | protein amino acid phosphoryla | 1790 | 0.982 | 4 | 16 | 0 | -0.030 | 0.040 |
| YMR241W | 30827 | YHM2 | tricarboxylic acid transport | 1791 | 0.982 | 4 | 8 | 0 | 0.046 | 0.054 |
| YDR387C | 34223 | | biological_process unknown | 1792 | 0.982 | 4 | 12 | 0 | -0.033 | 0.031 |
| YDL224C | 33922 | WHI4 | regulation of cell size | 1793 | 0.982 | 4 | 16 | 0 | 0.035 | 0.045 |
| YFL049W | 35670 | | biological_process unknown | 1794 | 0.982 | 4 | 16 | 0 | -0.020 | 0.043 |
| YOR025W | 31801 | HST3 | chromatin silencing at telomere | 1795 | 0.982 | 4 | 16 | 0 | -0.017 | 0.077 |
| YCR088W | 37199 | ABP1 | establishment of cell polarity (se | 1796 | 0.982 | 4 | 16 | 0 | 0.011 | 0.033 |
| YGR202C | 34832 | PCT1 | phosphatidylcholine biosynthesi | 1797 | 0.982 | 4 | 16 | 0 | -0.028 | 0.055 |
| YPL060W | 32768 | LPE10 | mitochondrial magnesium ion tr | 1798 | 0.982 | 4 | 16 | 0 | 0.046 | 0.067 |
| YPL058C | 32770 | PDR12 | transport* | 1799 | 0.982 | 4 | 15 | 0 | 0.057 | 0.083 |
| YGR284C | 35936 | ERV29 | ER to Golgi transport | 1800 | 0.982 | 4 | 16 | 0 | -0.017 | 0.065 |
| YAL049C | 30356 | | biological_process unknown | 1801 | 0.982 | 4 | 8 | 0 | -0.041 | 0.020 |
| YIL042C | 31435 | | biological_process unknown | 1802 | 0.982 | 4 | 12 | 0 | -0.005 | 0.032 |
| YOR265W | 37323 | RBL2 | post-chaperonin tubulin folding | 1803 | 0.982 | 3 | 6 | 0 | | |
| YHR043C | 31006 | DOG2 | response to stress* | 1804 | 0.982 | 4 | 16 | 0 | 0.013 | 0.061 |
| YIL066C | 31459 | RNR3 | DNA replication | 1805 | 0.982 | 4 | 16 | 0 | 0.027 | 0.011 |
| YDR249C | 33608 | | biological_process unknown | 1806 | 0.982 | 4 | 16 | 0 | -0.013 | 0.031 |
| YNL095C | 37233 | | biological_process unknown | 1807 | 0.982 | 4 | 16 | 0 | -0.050 | 0.029 |
| YGR011W | 34641 | | | 1808 | 0.982 | 4 | 16 | 0 | -0.055 | 0.069 |
| YIL102C | 32261 | | biological_process unknown | 1809 | 0.982 | 4 | 16 | 0 | -0.009 | 0.029 |
| YDL239C | 33936 | ADY3 | protein complex assembly* | 1810 | 0.982 | 4 | 16 | 0 | -0.025 | 0.055 |
| YKL096W | 37026 | CWP2 | cell wall organization and bioge | 1811 | 0.982 | 4 | 16 | 0 | -0.017 | 0.026 |
| YLR125W | 32736 | | biological_process unknown | 1812 | 0.982 | 4 | 8 | 0 | 0.022 | 0.058 |
| YGR243W | 35896 | | biological_process unknown | 1813 | 0.982 | 4 | 16 | 0 | 0.005 | 0.082 |
| YKL084W | 34933 | | | 1814 | 0.982 | 4 | 12 | 0 | -0.050 | 0.045 |
| YDR130C | 34064 | FIN1 | biological_process unknown | 1815 | 0.983 | 4 | 16 | 0 | -0.034 | 0.046 |
| YPR145W | 35560 | ASN1 | asparagine biosynthesis | 1816 | 0.983 | 4 | 16 | 0 | -0.046 | 0.096 |
| YMR020W | 30595 | FMS1 | pantothenate biosynthesis* | 1817 | 0.983 | 4 | 8 | 0 | 0.029 | 0.122 |
| YBR066C | 33203 | NRG2 | invasive growth | 1818 | 0.983 | 4 | 16 | 0 | -0.016 | 0.070 |
| YER188W | 35843 | | | 1819 | 0.983 | 4 | 16 | 0 | -0.031 | 0.023 |

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|---|---|---|---|---|---|---|---|---|---|---|
| YLL047W | 31535 | | | 1820 | 0.983 | 4 | 16 | 0 | -0.015 | 0.043 |
| YOR038C | 31814 | HIR2 | regulation of transcription from I | 1821 | 0.983 | 4 | 16 | 0 | 0.032 | 0.054 |
| YIL162W | 32321 | SUC2 | sucrose catabolism | 1822 | 0.983 | 4 | 16 | 0 | -0.009 | 0.052 |
| YDL218W | 33916 | | biological_process unknown | 1823 | 0.983 | 4 | 16 | 0 | -0.007 | 0.045 |
| YOR161C | 32417 | | biological_process unknown | 1824 | 0.983 | 4 | 15 | 0 | 0.062 | 0.096 |
| YGR027C | 34657 | RPS25A | protein biosynthesis | 1825 | 0.983 | 4 | 15 | 0 | 0.039 | 0.052 |
| YIL101C | 32260 | XBP1 | response to stress | 1826 | 0.983 | 4 | 16 | 0 | -0.016 | 0.027 |
| YNR031C | 35406 | SSK2 | protein amino acid phosphorylat | 1827 | 0.983 | 4 | 16 | 0 | -0.048 | 0.054 |
| YDL185W | 33883 | TFP1 | vacuolar acidification* | 1828 | 0.983 | 4 | 15 | 0 | -0.032 | 0.118 |
| YIR007W | 32343 | | biological_process unknown | 1829 | 0.983 | 4 | 16 | 0 | 0.012 | 0.034 |
| YDR419W | 34255 | RAD30 | DNA repair* | 1830 | 0.983 | 4 | 16 | 0 | -0.018 | 0.054 |
| YBL083C | 33109 | | | 1831 | 0.983 | 4 | 16 | 0 | -0.026 | 0.050 |
| YKL171W | 35021 | | proteolysis and peptidolysis | 1832 | 0.983 | 4 | 16 | 0 | -0.009 | 0.032 |
| YJR119C | 36922 | | biological_process unknown | 1833 | 0.983 | 4 | 16 | 0 | -0.015 | 0.047 |
| YLR395C | 35304 | COX8 | aerobic respiration | 1834 | 0.983 | 4 | 16 | 0 | -0.064 | 0.069 |
| YLR391W | 35300 | | | 1835 | 0.983 | 4 | 16 | 0 | -0.011 | 0.009 |
| YBR083W | 37155 | TEC1 | pseudohyphal growth* | 1836 | 0.983 | 4 | 16 | 0 | 0.000 | 0.019 |
| YOR354C | 31651 | MSC6 | meiotic recombination | 1837 | 0.983 | 4 | 16 | 0 | -0.038 | 0.026 |
| YDR482C | 34316 | CWC21 | biological_process unknown | 1838 | 0.983 | 4 | 12 | 0 | -0.001 | 0.110 |
| YGR263C | 35915 | | biological_process unknown | 1839 | 0.983 | 4 | 15 | 0 | 0.024 | 0.024 |
| YMR008C | 30583 | PLB1 | glycerophospholipid metabolism | 1840 | 0.983 | 4 | 8 | 0 | 0.075 | 0.050 |
| YBR139W | 33278 | | biological_process unknown | 1841 | 0.983 | 4 | 15 | 0 | 0.009 | 0.035 |
| YKR012C | 35083 | | | 1842 | 0.983 | 4 | 16 | 0 | 0.037 | 0.006 |
| YAL031C | 30377 | FUN21 | biological_process unknown | 1843 | 0.983 | 4 | 8 | 0 | -0.013 | 0.037 |
| YCR092C | 35811 | MSH3 | DNA recombination* | 1844 | 0.983 | 4 | 16 | 0 | -0.036 | 0.029 |
| YBR161W | 33300 | | biological_process unknown | 1845 | 0.983 | 4 | 16 | 0 | -0.075 | 0.013 |
| YKL067W | 34916 | YNK1 | DNA metabolism* | 1846 | 0.983 | 4 | 16 | 0 | -0.018 | 0.052 |
| YKR077W | 35993 | | biological_process unknown | 1847 | 0.983 | 4 | 16 | 0 | -0.017 | 0.016 |
| YGR196C | 34826 | FYV8 | biological_process unknown | 1848 | 0.983 | 4 | 16 | 0 | -0.037 | 0.031 |
| YAL036C | 30370 | FUN11 | biological_process unknown | 1849 | 0.983 | 4 | 8 | 0 | 0.032 | 0.020 |
| YDR315C | 33674 | IPK1 | myo-inositol metabolism | 1850 | 0.983 | 4 | 11 | 0 | 0.024 | 0.037 |
| YER055C | 30190 | HIS1 | histidine biosynthesis | 1851 | 0.983 | 4 | 16 | 0 | 0.010 | 0.033 |
| YCR105W | 35821 | ADH7 | alcohol metabolism | 1852 | 0.983 | 4 | 16 | 0 | -0.028 | 0.024 |
| YGR079W | 34709 | | biological_process unknown | 1853 | 0.983 | 4 | 16 | 0 | 0.000 | 0.048 |
| YIL124W | 32283 | AYR1 | phosphatidic acid biosynthesis | 1854 | 0.983 | 4 | 16 | 0 | -0.034 | 0.042 |
| YNR069C | 37125 | BSC5 | biological_process unknown | 1855 | 0.983 | 4 | 16 | 0 | -0.028 | 0.013 |
| YPR151C | 37407 | SUE1 | biological_process unknown | 1856 | 0.983 | 4 | 16 | 0 | -0.012 | 0.034 |
| YDR383C | 34219 | NKP1 | biological_process unknown | 1857 | 0.983 | 4 | 16 | 0 | -0.026 | 0.050 |
| YGR176W | 34806 | | | 1858 | 0.983 | 4 | 16 | 0 | -0.038 | 0.040 |
| YGR107W | 34737 | | | 1859 | 0.983 | 4 | 16 | 0 | -0.003 | 0.074 |
| YOR014W | 31790 | RTS1 | protein biosynthesis* | 1860 | 0.983 | 4 | 15 | 0 | 0.033 | 0.058 |
| YDR313C | 33672 | PIB1 | protein ubiquitination | 1861 | 0.983 | 4 | 16 | 0 | 0.021 | 0.020 |
| YLR021W | 31576 | | biological_process unknown | 1862 | 0.983 | 4 | 15 | 0 | -0.002 | 0.073 |
| YJR039W | 36837 | | biological_process unknown | 1863 | 0.983 | 4 | 16 | 0 | -0.011 | 0.078 |
| YER087C- | 30228 | | | 1864 | 0.983 | 4 | 16 | 0 | -0.028 | 0.016 |
| YDL210W | 33908 | UGA4 | transport | 1865 | 0.983 | 4 | 16 | 0 | -0.079 | 0.054 |
| YNR033W | 37389 | ABZ1 | para-aminobenzoic acid metabo | 1866 | 0.983 | 4 | 16 | 0 | -0.027 | 0.037 |
| YML129C | 36530 | COX14 | aerobic respiration* | 1867 | 0.983 | 4 | 16 | 0 | -0.034 | 0.031 |
| YKL129C | 34979 | MYO3 | cell wall organization and bioge | 1868 | 0.983 | 4 | 16 | 0 | 0.015 | 0.035 |
| YDR260C | 33619 | SWM1 | spore wall assembly (sensu Sac | 1869 | 0.983 | 4 | 16 | 0 | 0.022 | 0.040 |
| YHR048W | 31875 | | drug transport | 1870 | 0.983 | 4 | 16 | 0 | 0.051 | 0.047 |
| YHR116W | 31944 | | aerobic respiration | 1871 | 0.984 | 4 | 15 | 0 | -0.063 | 0.005 |

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|---|---|---|---|---|---|---|---|---|---|---|
| YPL100W | 32152 | ATG21 | vacuolar protein processing/ma | 1872 | 0.984 | 4 | 16 | 0 | -0.023 | 0.021 |
| YBL067C | 33093 | UBP13 | biological_process unknown | 1873 | 0.984 | 4 | 16 | 0 | -0.007 | 0.034 |
| YCL026C- | 37178 | FRM2 | negative regulation of fatty acid | 1874 | 0.984 | 4 | 16 | 0 | -0.004 | 0.052 |
| YLR381W | 35290 | CTF3 | chromosome segregation | 1875 | 0.984 | 4 | 16 | 0 | -0.054 | 0.016 |
| YLR109W | 32720 | AHP1 | regulation of redox homeostasis | 1876 | 0.984 | 4 | 16 | 0 | -0.029 | 0.064 |
| YLR445W | 36049 | | biological_process unknown | 1877 | 0.984 | 4 | 16 | 0 | -0.064 | 0.052 |
| YIL014W | 31406 | MNT3 | O-linked glycosylation | 1878 | 0.984 | 4 | 15 | 0 | 0.006 | 0.032 |
| YDR133C | 34067 | | | 1879 | 0.984 | 4 | 16 | 0 | -0.017 | 0.041 |
| YOR061W | 31837 | CKA2 | protein amino acid phosphorylat | 1880 | 0.984 | 4 | 16 | 0 | -0.025 | 0.051 |
| YHL022C | 30941 | SPO11 | meiotic DNA double-strand brea | 1881 | 0.984 | 4 | 16 | 0 | -0.051 | 0.035 |
| YNL147W | 37383 | LSM7 | nuclear mRNA splicing, via splic | 1882 | 0.984 | 4 | 12 | 0 | -0.132 | 0.008 |
| YGL077C | 34444 | HNM1 | choline transport | 1883 | 0.984 | 4 | 16 | 0 | 0.002 | 0.035 |
| YOL147C | 37129 | PEX11 | peroxisome organization and bi | 1884 | 0.984 | 4 | 16 | 0 | -0.030 | 0.037 |
| YDR231C | 33590 | COX20 | aerobic respiration* | 1885 | 0.984 | 4 | 16 | 0 | -0.097 | 0.076 |
| YCR073C | 37195 | SSK22 | protein amino acid phosphorylat | 1886 | 0.984 | 4 | 16 | 0 | -0.018 | 0.019 |
| YDR380W | 34216 | ARO10 | leucine catabolism* | 1887 | 0.984 | 4 | 16 | 0 | -0.029 | 0.043 |
| YEL053C | 30294 | MAK10 | virus-host interaction* | 1888 | 0.984 | 4 | 16 | 0 | -0.056 | 0.063 |
| YML111W | 36511 | BUL2 | protein monoubiquitination* | 1889 | 0.984 | 4 | 16 | 0 | 0.013 | 0.063 |
| YOR289W | 31585 | | biological_process unknown | 1890 | 0.984 | 4 | 16 | 0 | -0.019 | 0.041 |
| YDR215C | 33574 | | | 1891 | 0.984 | 4 | 16 | 0 | 0.025 | 0.027 |
| YCR023C | 33504 | | biological_process unknown | 1892 | 0.984 | 4 | 16 | 0 | -0.041 | 0.066 |
| YER047C | 30182 | SAP1 | biological_process unknown | 1893 | 0.984 | 4 | 16 | 0 | 0.061 | 0.069 |
| YIL136W | 32295 | OM45 | biological_process unknown | 1894 | 0.984 | 4 | 16 | 0 | 0.038 | 0.110 |
| YPR026W | 37145 | ATH1 | response to stress* | 1895 | 0.984 | 4 | 16 | 0 | -0.013 | 0.058 |
| YBR012C | 33147 | | biological_process unknown | 1896 | 0.984 | 4 | 16 | 0 | -0.027 | 0.087 |
| YER053C | 30188 | | biological_process unknown | 1897 | 0.984 | 4 | 16 | 0 | -0.004 | 0.084 |
| YDR218C | 33577 | SPR28 | cell wall organization and bioge | 1898 | 0.984 | 4 | 16 | 0 | 0.014 | 0.034 |
| YKR089C | 36005 | | biological_process unknown | 1899 | 0.984 | 4 | 16 | 0 | -0.067 | 0.030 |
| YOL013W | 36235 | | | 1900 | 0.984 | 4 | 16 | 0 | -0.051 | 0.034 |
| YIL077C | 31470 | | biological_process unknown | 1901 | 0.984 | 4 | 16 | 0 | -0.034 | 0.016 |
| YPL183C | 36762 | | biological_process unknown | 1902 | 0.984 | 4 | 16 | 0 | 0.007 | 0.044 |
| YAL068C | 30338 | | biological_process unknown | 1903 | 0.984 | 4 | 8 | 0 | 0.008 | 0.059 |
| YMR124W | 36565 | | biological_process unknown | 1904 | 0.984 | 4 | 16 | 0 | -0.031 | 0.033 |
| YPR122W | 35537 | AXL1 | bud site selection* | 1905 | 0.984 | 4 | 16 | 0 | -0.037 | 0.054 |
| YPL107W | 32145 | | biological_process unknown | 1906 | 0.984 | 4 | 16 | 0 | -0.016 | 0.041 |
| YOR163W | 32419 | DDP1 | diadenosine polyphosphate met | 1907 | 0.984 | 4 | 16 | 0 | -0.016 | 0.054 |
| YHR125W | 31953 | | | 1908 | 0.984 | 4 | 16 | 0 | -0.059 | 0.015 |
| YPR023C | 37143 | EAF3 | regulation of transcription from I | 1909 | 0.984 | 4 | 16 | 0 | -0.020 | 0.046 |
| YDR139C | 34073 | RUB1 | NEDD8 class-dependent protei | 1910 | 0.984 | 4 | 16 | 0 | -0.025 | 0.029 |
| YLR390W | 37108 | CCW14 | cell wall organization and bioge | 1911 | 0.984 | 4 | 16 | 0 | -0.011 | 0.057 |
| YDL174C | 33872 | DLD1 | aerobic respiration* | 1912 | 0.984 | 4 | 16 | 0 | 0.018 | 0.024 |
| YOL085C | 31776 | | | 1913 | 0.984 | 4 | 16 | 0 | -0.008 | 0.042 |
| YLR325C | 35234 | RPL38 | protein biosynthesis | 1914 | 0.984 | 4 | 16 | 0 | -0.015 | 0.033 |
| YJR020W | 36818 | | | 1915 | 0.984 | 4 | 16 | 0 | -0.035 | 0.056 |
| YIL137C | 32296 | | biological_process unknown | 1916 | 0.984 | 4 | 16 | 0 | -0.042 | 0.048 |
| YJR056C | 36854 | | biological_process unknown | 1917 | 0.984 | 4 | 16 | 0 | -0.027 | 0.060 |
| YGL144C | 34511 | ROG1 | lipid metabolism | 1918 | 0.984 | 4 | 12 | 0 | 0.022 | 0.060 |
| YOR304W | 31601 | ISW2 | chromatin modeling* | 1919 | 0.985 | 4 | 16 | 0 | -0.067 | 0.034 |
| YKR069W | 35985 | MET1 | methionine metabolism* | 1920 | 0.985 | 4 | 16 | 0 | -0.020 | 0.053 |
| YPL103C | 32149 | | biological_process unknown | 1921 | 0.985 | 4 | 15 | 0 | 0.011 | 0.003 |
| YNL027W | 35353 | CRZ1 | regulation of transcription, DNA | 1922 | 0.985 | 4 | 16 | 0 | -0.020 | 0.048 |
| YDR441C | 34277 | APT2 | biological_process unknown | 1923 | 0.985 | 4 | 16 | 0 | 0.050 | 0.081 |

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|---|---|---|---|---|---|---|---|---|---|---|
| YGR213C | 34843 | RTA1 | biological_process unknown | 1924 | 0.985 | 4 | 16 | 0 | -0.019 | 0.070 |
| YLL049W | 36426 | | biological_process unknown | 1925 | 0.985 | 4 | 16 | 0 | -0.020 | 0.053 |
| YNL301C | 31143 | RPL18B | protein biosynthesis | 1926 | 0.985 | 4 | 16 | 0 | -0.036 | 0.038 |
| YAR043C | 30429 | | | 1927 | 0.985 | 4 | 8 | 0 | -0.018 | 0.050 |
| YDR090C | 34025 | | biological_process unknown | 1928 | 0.985 | 4 | 16 | 0 | -0.063 | 0.049 |
| YGR237C | 35890 | | biological_process unknown | 1929 | 0.985 | 4 | 16 | 0 | -0.034 | 0.034 |
| YGR129W | 34759 | SYF2 | nuclear mRNA splicing, via splic | 1930 | 0.985 | 4 | 16 | 0 | -0.025 | 0.035 |
| YCR095C | 36962 | | biological_process unknown | 1931 | 0.985 | 4 | 16 | 0 | -0.005 | 0.028 |
| YPR015C | 35434 | | biological_process unknown | 1932 | 0.985 | 4 | 16 | 0 | -0.113 | 0.043 |
| YBR014C | 33151 | | biological_process unknown | 1933 | 0.985 | 4 | 16 | 0 | 0.011 | 0.059 |
| YDL041W | 33737 | | | 1934 | 0.985 | 4 | 11 | 0 | 0.180 | 0.130 |
| YDR261C | 33620 | EXG2 | biological_process unknown | 1935 | 0.985 | 4 | 15 | 0 | -0.079 | 0.048 |
| YHL042W | 30921 | | biological_process unknown | 1936 | 0.985 | 4 | 16 | 0 | -0.012 | 0.061 |
| YIR019C | 35953 | MUC1 | pseudohyphal growth* | 1937 | 0.985 | 4 | 16 | 0 | -0.087 | 0.047 |
| YGR052W | 34682 | | biological_process unknown | 1938 | 0.985 | 4 | 16 | 0 | -0.055 | 0.053 |
| YLL061W | 31549 | MMP1 | S-methylmethionine transport | 1939 | 0.985 | 4 | 16 | 0 | -0.049 | 0.035 |
| YDR026C | 33965 | | biological_process unknown | 1940 | 0.985 | 4 | 16 | 0 | -0.009 | 0.044 |
| YGR017W | 34647 | | biological_process unknown | 1941 | 0.985 | 4 | 16 | 0 | -0.021 | 0.048 |
| YDR535C | 35830 | | | 1942 | 0.985 | 4 | 16 | 0 | -0.045 | 0.035 |
| YPL057C | 32771 | SUR1 | sphingolipid biosynthesis* | 1943 | 0.985 | 4 | 16 | 0 | -0.011 | 0.026 |
| YML090W | 36487 | | | 1944 | 0.985 | 4 | 16 | 0 | 0.006 | 0.027 |
| YOR011W | 31787 | AUS1 | sterol transport | 1945 | 0.985 | 4 | 16 | 0 | -0.050 | 0.055 |
| YMR150C | 30732 | IMP1 | mitochondrial processing | 1946 | 0.985 | 4 | 16 | 0 | -0.055 | 0.018 |
| YLR050C | 36440 | | biological_process unknown | 1947 | 0.985 | 4 | 16 | 0 | 0.105 | 0.150 |
| YMR322C | 37315 | SNO4 | biological_process unknown | 1948 | 0.985 | 4 | 16 | 0 | -0.083 | 0.067 |
| YIR038C | 35973 | GTT1 | glutathione metabolism | 1949 | 0.985 | 4 | 16 | 0 | 0.039 | 0.034 |
| YDL213C | 33911 | NOP6 | response to dessication | 1950 | 0.985 | 4 | 16 | 0 | -0.013 | 0.041 |
| YFR018C | 35697 | | biological_process unknown | 1951 | 0.985 | 4 | 16 | 0 | 0.049 | 0.050 |
| YOR173W | 32429 | DCS2 | biological_process unknown | 1952 | 0.985 | 4 | 16 | 0 | 0.001 | 0.012 |
| YDR117C | 34051 | | biological_process unknown | 1953 | 0.985 | 4 | 16 | 0 | -0.039 | 0.030 |
| YLR437C | 36040 | | biological_process unknown | 1954 | 0.985 | 4 | 16 | 0 | -0.064 | 0.052 |
| YKL047W | 34896 | | biological_process unknown | 1955 | 0.985 | 4 | 16 | 0 | -0.014 | 0.037 |
| YDR206W | 33565 | EBS1 | telomerase-dependent telomere | 1956 | 0.985 | 4 | 16 | 0 | 0.017 | 0.025 |
| YFL013W- | 37069 | | | 1957 | 0.985 | 4 | 16 | 0 | -0.040 | 0.066 |
| YJL021C | 36789 | | | 1958 | 0.985 | 4 | 16 | 0 | -0.007 | 0.014 |
| YMR194C | 36074 | | | 1959 | 0.985 | 4 | 16 | 0 | -0.067 | 0.052 |
| YDR197W | 33556 | CBS2 | protein biosynthesis | 1960 | 0.985 | 4 | 16 | 0 | -0.009 | 0.039 |
| YER149C | 36146 | PEA2 | establishment of cell polarity (se | 1961 | 0.985 | 4 | 16 | 0 | 0.001 | 0.020 |
| YLR334C | 36709 | | | 1962 | 0.985 | 4 | 16 | 0 | 0.033 | 0.086 |
| YKL076C | 34925 | PSY1 | biological_process unknown | 1963 | 0.985 | 4 | 16 | 0 | -0.045 | 0.113 |
| YDR032C | 33971 | PST2 | biological_process unknown | 1964 | 0.985 | 4 | 16 | 0 | -0.092 | 0.029 |
| YJL181W | 31243 | | biological_process unknown | 1965 | 0.985 | 4 | 16 | 0 | 0.028 | 0.029 |
| YDR031W | 33970 | | biological_process unknown | 1966 | 0.986 | 4 | 16 | 0 | -0.076 | 0.065 |
| YAL014C | 30394 | SYN8 | transport | 1967 | 0.986 | 4 | 8 | 0 | 0.023 | 0.050 |
| YIL160C | 32319 | POT1 | fatty acid beta-oxidation | 1968 | 0.986 | 4 | 15 | 0 | 0.073 | 0.034 |
| YKR013W | 35084 | PRY2 | biological_process unknown | 1969 | 0.986 | 4 | 16 | 0 | -0.076 | 0.087 |
| YFR012W | 35691 | | biological_process unknown | 1970 | 0.986 | 4 | 16 | 0 | -0.093 | 0.089 |
| YFL032W | 35651 | | | 1971 | 0.986 | 4 | 16 | 0 | -0.042 | 0.035 |
| YPL133C | 32119 | RDS2 | response to xenobiotic stimulus | 1972 | 0.986 | 4 | 16 | 0 | 0.002 | 0.042 |
| YGR183C | 34813 | QCR9 | aerobic respiration* | 1973 | 0.986 | 4 | 16 | 0 | -0.116 | 0.051 |
| YPL023C | 32805 | MET12 | methionine metabolism | 1974 | 0.986 | 4 | 16 | 0 | 0.020 | 0.022 |
| YOR045W | 31821 | TOM6 | mitochondrial translocation | 1975 | 0.986 | 4 | 16 | 0 | 0.003 | 0.024 |

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|---|---|---|---|---|---|---|---|---|---|---|
| YBR090C | 37159 | | biological_process unknown | 1976 | 0.986 | 4 | 16 | 0 | -0.050 | 0.081 |
| YBR241C | 33381 | | biological_process unknown | 1977 | 0.986 | 4 | 16 | 0 | -0.009 | 0.023 |
| YPL229W | 31063 | | biological_process unknown | 1978 | 0.986 | 4 | 16 | 0 | -0.081 | 0.052 |
| YDR278C | 33637 | | | 1979 | 0.986 | 4 | 16 | 0 | -0.040 | 0.060 |
| YDR522C | 34356 | SPS2 | sporulation (sensu Saccharomy | 1980 | 0.986 | 4 | 16 | 0 | -0.046 | 0.019 |
| YDR095C | 34030 | | | 1981 | 0.986 | 4 | 12 | 0 | -0.044 | 0.041 |
| YLR282C | 35191 | | | 1982 | 0.986 | 4 | 16 | 0 | -0.025 | 0.058 |
| YGR182C | 34812 | | | 1983 | 0.986 | 4 | 16 | 0 | -0.041 | 0.045 |
| YDR131C | 34065 | | ubiquitin-dependent protein cata | 1984 | 0.986 | 4 | 16 | 0 | -0.029 | 0.043 |
| YGR043C | 34673 | | biological_process unknown | 1985 | 0.986 | 4 | 16 | 0 | 0.024 | 0.082 |
| YAR050W | 36870 | FLO1 | flocculation | 1986 | 0.986 | 4 | 16 | 0 | -0.007 | 0.048 |
| YMR183C | 30768 | SSO2 | nonselective vesicle fusion* | 1987 | 0.986 | 4 | 16 | 0 | -0.025 | 0.020 |
| YJR073C | 32551 | OPI3 | phosphatidylcholine biosynthesi | 1988 | 0.986 | 4 | 15 | 0 | 0.020 | 0.117 |
| YKL039W | 34888 | PTM1 | biological_process unknown | 1989 | 0.986 | 4 | 16 | 0 | 0.013 | 0.014 |
| YNL325C | 31120 | FIG4 | cellular morphogenesis during c | 1990 | 0.986 | 4 | 16 | 0 | -0.047 | 0.033 |
| YMR303C | 30891 | ADH2 | fermentation* | 1991 | 0.986 | 4 | 16 | 0 | -0.035 | 0.050 |
| YHL019C | 30944 | APM2 | vesicle-mediated transport | 1992 | 0.986 | 4 | 12 | 0 | -0.034 | 0.061 |
| YLR118C | 32729 | | biological_process unknown | 1993 | 0.986 | 4 | 12 | 0 | -0.034 | 0.053 |
| YER153C | 36150 | PET122 | protein biosynthesis | 1994 | 0.986 | 4 | 14 | 0 | 0.048 | 0.013 |
| YGR169C | 34799 | PUS6 | tRNA modification* | 1995 | 0.986 | 4 | 16 | 0 | -0.073 | 0.072 |
| YFL010C | 37276 | WWM1 | response to dessication | 1996 | 0.986 | 4 | 8 | 0 | -0.039 | 0.028 |
| YHL034C | 30929 | SBP1 | RNA metabolism | 1997 | 0.986 | 4 | 16 | 0 | 0.061 | 0.014 |
| YIL099W | 32258 | SGA1 | sporulation (sensu Saccharomy | 1998 | 0.986 | 4 | 16 | 0 | -0.028 | 0.029 |
| YKL107W | 34957 | | biological_process unknown | 1999 | 0.986 | 4 | 16 | 0 | -0.056 | 0.067 |
| YDR307W | 33666 | | biological_process unknown | 2000 | 0.986 | 4 | 16 | 0 | -0.097 | 0.044 |
| YDR525W | 34359 | API2 | biological_process unknown | 2001 | 0.986 | 4 | 8 | 0 | -0.099 | 0.012 |
| YML042W | 36728 | CAT2 | carnitine metabolism | 2002 | 0.986 | 4 | 16 | 0 | -0.026 | 0.034 |
| YDR456W | 34290 | NHX1 | vacuolar acidification* | 2003 | 0.986 | 4 | 16 | 0 | 0.020 | 0.075 |
| YMR090W | 36225 | | biological_process unknown | 2004 | 0.986 | 4 | 16 | 0 | -0.035 | 0.027 |
| YDR148C | 33506 | KGD2 | tricarboxylic acid cycle* | 2005 | 0.986 | 4 | 12 | 0 | -0.018 | 0.052 |
| YNL101W | 32975 | AVT4 | neutral amino acid transport | 2006 | 0.986 | 4 | 16 | 0 | 0.042 | 0.025 |
| YER078C | 36392 | | biological_process unknown | 2007 | 0.986 | 4 | 12 | 0 | 0.059 | 0.062 |
| YNL206C | 32006 | RTT106 | negative regulation of DNA tran | 2008 | 0.986 | 4 | 16 | 0 | -0.007 | 0.053 |
| YCL008C | 33416 | STP22 | protein-vacuolar targeting* | 2009 | 0.986 | 4 | 16 | 0 | -0.028 | 0.016 |
| YAL019W | 30389 | FUN30 | chromosome organization and b | 2010 | 0.986 | 4 | 8 | 0 | 0.013 | 0.033 |
| YER184C | 36180 | | biological_process unknown | 2011 | 0.986 | 4 | 16 | 0 | -0.018 | 0.034 |
| YGL089C | 34456 | MF(ALPHA | response to pheromone during | 2012 | 0.986 | 4 | 16 | 0 | 0.010 | 0.051 |
| YDL201W | 33899 | TRM8 | tRNA methylation | 2013 | 0.986 | 4 | 16 | 0 | 0.000 | 0.046 |
| YGR189C | 34819 | CRH1 | biological_process unknown | 2014 | 0.986 | 4 | 16 | 0 | 0.035 | 0.060 |
| YBL043W | 33069 | ECM13 | cell wall organization and bioge | 2015 | 0.986 | 4 | 16 | 0 | 0.016 | 0.021 |
| YMR095C | 36535 | SNO1 | pyridoxine metabolism* | 2016 | 0.986 | 4 | 16 | 0 | 0.023 | 0.034 |
| YOR066W | 31842 | | biological_process unknown | 2017 | 0.986 | 4 | 15 | 0 | -0.039 | 0.045 |
| YGR295C | 37297 | COS6 | biological_process unknown | 2018 | 0.986 | 4 | 16 | 0 | -0.064 | 0.074 |
| YGL131C | 34498 | SNT2 | biological_process unknown | 2019 | 0.986 | 4 | 16 | 0 | 0.006 | 0.016 |
| YPL074W | 32754 | YTA6 | biological_process unknown | 2020 | 0.986 | 4 | 16 | 0 | 0.009 | 0.040 |
| YNL295W | 31149 | | biological_process unknown | 2021 | 0.986 | 4 | 16 | 0 | 0.020 | 0.004 |
| YMR214W | 30800 | SCJ1 | protein folding | 2022 | 0.986 | 4 | 16 | 0 | 0.004 | 0.016 |
| YJL199C | 31226 | MBB1 | biological_process unknown | 2023 | 0.986 | 4 | 16 | 0 | 0.057 | 0.017 |
| YKL160W | 35010 | ELF1 | cell growth | 2024 | 0.986 | 4 | 16 | 0 | 0.002 | 0.064 |
| YOR003W | 31779 | YSP3 | protein catabolism | 2025 | 0.986 | 4 | 16 | 0 | -0.047 | 0.085 |
| YBR262C | 33402 | | biological_process unknown | 2026 | 0.987 | 4 | 12 | 0 | -0.013 | 0.045 |
| YMR118C | 37121 | | biological_process unknown | 2027 | 0.987 | 4 | 16 | 0 | -0.030 | 0.068 |

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|---|---|---|---|---|---|---|---|---|---|---|
| YHR121W | 31949 | | biological_process unknown | 2028 | 0.987 | 4 | 16 | 0 | -0.045 | 0.078 |
| YOL016C | 36473 | CMK2 | protein amino acid phosphorylat | 2029 | 0.987 | 4 | 16 | 0 | -0.014 | 0.049 |
| YFL030W | 35649 | AGX1 | glyoxylate cycle | 2030 | 0.987 | 4 | 16 | 0 | 0.006 | 0.054 |
| YPL215W | 31077 | CBP3 | protein complex assembly | 2031 | 0.987 | 4 | 16 | 0 | -0.095 | 0.062 |
| YGL163C | 34530 | RAD54 | chromatin modeling* | 2032 | 0.987 | 3 | 6 | 0 | | |
| YNR071C | 36230 | | biological_process unknown | 2033 | 0.987 | 4 | 16 | 0 | -0.013 | 0.056 |
| YIL135C | 32294 | VHS2 | G1/S transition of mitotic cell cy | 2034 | 0.987 | 4 | 16 | 0 | -0.104 | 0.022 |
| YMR311C | 36451 | GLC8 | glycogen biosynthesis | 2035 | 0.987 | 4 | 16 | 0 | 0.012 | 0.021 |
| YLR332W | 35241 | MID2 | cell wall organization and bioge | 2036 | 0.987 | 4 | 8 | 0 | -0.055 | 0.021 |
| YPL006W | 32822 | NCR1 | biological_process unknown | 2037 | 0.987 | 4 | 16 | 0 | -0.025 | 0.027 |
| YOR231W | 32487 | MKK1 | protein amino acid phosphorylat | 2038 | 0.987 | 4 | 16 | 0 | 0.053 | 0.022 |
| YKL197C | 35047 | PEX1 | peroxisome organization and bi | 2039 | 0.987 | 4 | 16 | 0 | -0.038 | 0.031 |
| YGR059W | 34689 | SPR3 | cell wall organization and bioge | 2040 | 0.987 | 4 | 16 | 0 | -0.028 | 0.022 |
| YER182W | 36178 | | biological_process unknown | 2041 | 0.987 | 4 | 16 | 0 | -0.020 | 0.084 |
| YPL067C | 32761 | | biological_process unknown | 2042 | 0.987 | 4 | 16 | 0 | 0.018 | 0.009 |
| YOR177C | 32433 | MPC54 | spore wall assembly (sensu Sac | 2043 | 0.987 | 4 | 16 | 0 | 0.004 | 0.034 |
| YFL027C | 35646 | GYP8 | vesicle-mediated transport | 2044 | 0.987 | 4 | 16 | 0 | -0.038 | 0.032 |
| YKR015C | 35086 | | biological_process unknown | 2045 | 0.987 | 4 | 16 | 0 | -0.047 | 0.027 |
| YOR343C | 31640 | | | 2046 | 0.987 | 4 | 16 | 0 | -0.014 | 0.025 |
| YNR015W | 35390 | SMM1 | tRNA processing* | 2047 | 0.987 | 4 | 16 | 0 | -0.049 | 0.031 |
| YDR395W | 34231 | SXM1 | mRNA-nucleus export* | 2048 | 0.987 | 4 | 16 | 0 | -0.090 | 0.040 |
| YPL196W | 31096 | OXR1 | response to oxidative stress | 2049 | 0.987 | 4 | 15 | 0 | 0.010 | 0.042 |
| YHR093W | 31921 | AHT1 | biological_process unknown | 2050 | 0.987 | 4 | 8 | 0 | -0.012 | 0.009 |
| YDL222C | 33920 | | cell wall organization and bioge | 2051 | 0.987 | 4 | 16 | 0 | -0.075 | 0.049 |
| YLR036C | 36434 | | biological_process unknown | 2052 | 0.987 | 4 | 16 | 0 | 0.044 | 0.060 |
| YPL177C | 32075 | CUP9 | transcription initiation from Pol I | 2053 | 0.987 | 4 | 16 | 0 | 0.028 | 0.012 |
| YPL270W | 31022 | MDL2 | aerobic respiration | 2054 | 0.987 | 4 | 16 | 0 | 0.001 | 0.040 |
| YOR040W | 31816 | GLO4 | carbohydrate metabolism | 2055 | 0.987 | 4 | 16 | 0 | -0.012 | 0.036 |
| YGR097W | 34727 | ASK10 | transcription | 2056 | 0.987 | 4 | 11 | 0 | -0.058 | 0.006 |
| YOR162C | 32418 | YRR1 | positive regulation of transcripti | 2057 | 0.987 | 4 | 16 | 0 | 0.007 | 0.072 |
| YGL156W | 34523 | AMS1 | carbohydrate metabolism | 2058 | 0.987 | 4 | 16 | 0 | -0.026 | 0.109 |
| YHR199C | 32893 | | biological_process unknown | 2059 | 0.987 | 4 | 16 | 0 | -0.035 | 0.069 |
| YMR036C | 30612 | MIH1 | G2/M transition of mitotic cell cy | 2060 | 0.987 | 4 | 8 | 0 | 0.070 | 0.034 |
| YOR016C | 31792 | ERP4 | secretory pathway | 2061 | 0.987 | 4 | 16 | 0 | -0.007 | 0.042 |
| YNL082W | 37226 | PMS1 | meiosis* | 2062 | 0.987 | 4 | 16 | 0 | -0.021 | 0.069 |
| YBL056W | 33082 | PTC3 | protein amino acid dephosphory | 2063 | 0.987 | 4 | 16 | 0 | 0.019 | 0.031 |
| YPR119W | 35534 | CLB2 | G2/M transition of mitotic cell cy | 2064 | 0.987 | 4 | 12 | 0 | 0.024 | 0.004 |
| YHR115C | 31943 | | biological_process unknown | 2065 | 0.987 | 4 | 16 | 0 | 0.079 | 0.038 |
| YDL226C | 33924 | GCS1 | ER to Golgi transport* | 2066 | 0.987 | 4 | 8 | 0 | -0.059 | 0.038 |
| YOR356W | 31653 | | NADH catabolism | 2067 | 0.987 | 4 | 16 | 0 | -0.033 | 0.089 |
| YPL136W | 32115 | | | 2068 | 0.987 | 4 | 16 | 0 | -0.049 | 0.029 |
| YBR019C | 33156 | GAL10 | galactose metabolism | 2069 | 0.987 | 4 | 16 | 0 | -0.008 | 0.063 |
| YFL048C | 35669 | EMP47 | ER to Golgi transport | 2070 | 0.987 | 4 | 16 | 0 | -0.033 | 0.019 |
| YOL152W | 37321 | FRE7 | biological_process unknown | 2071 | 0.987 | 4 | 16 | 0 | -0.082 | 0.038 |
| YLL059C | 36427 | | | 2072 | 0.987 | 4 | 16 | 0 | -0.010 | 0.022 |
| YKL207W | 35057 | | biological_process unknown | 2073 | 0.987 | 4 | 16 | 0 | -0.091 | 0.031 |
| YLR271W | 35180 | | biological_process unknown | 2074 | 0.987 | 4 | 16 | 0 | -0.022 | 0.012 |
| YOR314W | 31611 | | | 2075 | 0.987 | 4 | 16 | 0 | -0.007 | 0.075 |
| YCL076W | 36880 | | | 2076 | 0.987 | 4 | 16 | 0 | -0.057 | 0.022 |
| YDR501W | 34335 | PLM2 | biological_process unknown | 2077 | 0.987 | 4 | 16 | 0 | 0.012 | 0.021 |
| YMR225C | 30811 | MRPL44 | protein biosynthesis | 2078 | 0.988 | 4 | 16 | 0 | 0.047 | 0.021 |
| YOL117W | 36267 | RRI2 | adaptation to pheromone during | 2079 | 0.988 | 4 | 16 | 0 | -0.041 | 0.069 |

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|---|---|---|---|---|---|---|---|---|---|---|
| YFR017C | 35696 | | biological_process unknown | 2080 | 0.988 | 4 | 16 | 0 | -0.006 | 0.042 |
| YDL109C | 33806 | | lipid metabolism | 2081 | 0.988 | 4 | 16 | 0 | -0.015 | 0.036 |
| YCL062W | 33469 | | | 2082 | 0.988 | 4 | 16 | 0 | -0.042 | 0.026 |
| YBR182C | 33322 | SMP1 | positive regulation of transcripti | 2083 | 0.988 | 3 | 6 | 0 | | |
| YIL007C | 31399 | NAS2 | ubiquitin-dependent protein cata | 2084 | 0.988 | 4 | 16 | 0 | -0.032 | 0.045 |
| YDR284C | 33643 | DPP1 | phospholipid metabolism | 2085 | 0.988 | 4 | 16 | 0 | -0.035 | 0.047 |
| YMR317W | 36459 | | biological_process unknown | 2086 | 0.988 | 4 | 16 | 0 | 0.010 | 0.026 |
| YGR254W | 37286 | ENO1 | gluconeogenesis* | 2087 | 0.988 | 4 | 16 | 0 | -0.009 | 0.021 |
| YIL094C | 31485 | LYS12 | lysine biosynthesis | 2088 | 0.988 | 4 | 16 | 0 | 0.095 | 0.057 |
| YER121W | 36120 | | | 2089 | 0.988 | 4 | 15 | 0 | 0.023 | 0.065 |
| YGR239C | 36997 | PEX21 | protein-peroxisome targeting | 2090 | 0.988 | 4 | 16 | 0 | -0.074 | 0.078 |
| YNL056W | 37211 | | biological_process unknown | 2091 | 0.988 | 4 | 16 | 0 | 0.056 | 0.036 |
| YLR056W | 32667 | ERG3 | ergosterol biosynthesis | 2092 | 0.988 | 4 | 16 | 0 | -0.021 | 0.039 |
| YCR001W | 33481 | | | 2093 | 0.988 | 4 | 16 | 0 | -0.018 | 0.044 |
| YGL176C | 34543 | | biological_process unknown | 2094 | 0.988 | 4 | 16 | 0 | -0.016 | 0.030 |
| YGR032W | 36979 | GSC2 | cell wall organization and bioge | 2095 | 0.988 | 4 | 12 | 0 | -0.011 | 0.004 |
| YAL064C- | 35714 | | biological_process unknown | 2096 | 0.988 | 4 | 16 | 0 | -0.057 | 0.028 |
| YOR240W | 32496 | | | 2097 | 0.988 | 4 | 16 | 0 | -0.009 | 0.068 |
| YGL139W | 34506 | | biological_process unknown | 2098 | 0.988 | 4 | 16 | 0 | -0.029 | 0.049 |
| YDR497C | 34331 | ITR1 | myo-inositol transport | 2099 | 0.988 | 4 | 16 | 0 | -0.012 | 0.042 |
| YGR234W | 35887 | YHB1 | response to stress | 2100 | 0.988 | 4 | 16 | 0 | -0.024 | 0.040 |
| YLL041C | 31529 | SDH2 | tricarboxylic acid cycle* | 2101 | 0.988 | 4 | 16 | 0 | -0.010 | 0.027 |
| YIL121W | 32280 | QDR2 | biological_process unknown | 2102 | 0.988 | 4 | 16 | 0 | 0.034 | 0.056 |
| YJR051W | 36849 | OSM1 | metabolism | 2103 | 0.988 | 4 | 16 | 0 | -0.034 | 0.016 |
| YNL193W | 32019 | | biological_process unknown | 2104 | 0.988 | 4 | 16 | 0 | 0.015 | 0.048 |
| YML072C | 36954 | | biological_process unknown | 2105 | 0.988 | 4 | 16 | 0 | -0.062 | 0.083 |
| YNL047C | 37372 | LIT1 | biological_process unknown | 2106 | 0.988 | 4 | 16 | 0 | -0.063 | 0.043 |
| YGL166W | 34533 | CUP2 | transcription initiation from Pol I | 2107 | 0.988 | 4 | 16 | 0 | -0.048 | 0.028 |
| YGR161C | 34791 | RTS3 | biological_process unknown | 2108 | 0.988 | 4 | 16 | 0 | -0.003 | 0.019 |
| YFL052W | 35673 | | biological_process unknown | 2109 | 0.988 | 4 | 16 | 0 | -0.017 | 0.046 |
| YJL201W | 31224 | ECM25 | cell wall organization and bioge | 2110 | 0.988 | 4 | 16 | 0 | -0.011 | 0.066 |
| YMR106C | 36546 | YKU80 | chromatin assembly/disassemb | 2111 | 0.988 | 4 | 16 | 0 | -0.006 | 0.051 |
| YHR003C | 36600 | | biological_process unknown | 2112 | 0.988 | 4 | 16 | 0 | 0.002 | 0.055 |
| YKR080W | 35996 | MTD1 | one-carbon compound metaboli | 2113 | 0.988 | 4 | 16 | 0 | -0.064 | 0.032 |
| YLR460C | 36063 | | biological_process unknown | 2114 | 0.988 | 4 | 16 | 0 | -0.130 | 0.015 |
| YNR005C | 35380 | | | 2115 | 0.988 | 4 | 16 | 0 | -0.043 | 0.035 |
| YDL138W | 33836 | RGT2 | signal transduction* | 2116 | 0.988 | 4 | 16 | 0 | -0.053 | 0.057 |
| YNR001C | 35376 | CIT1 | tricarboxylic acid cycle* | 2117 | 0.988 | 4 | 16 | 0 | -0.059 | 0.023 |
| YGR111W | 34741 | | biological_process unknown | 2118 | 0.988 | 4 | 16 | 0 | -0.012 | 0.055 |
| YOL098C | 36248 | | biological_process unknown | 2119 | 0.988 | 4 | 16 | 0 | -0.026 | 0.050 |
| YKL159C | 35009 | RCN1 | calcium-mediated signaling | 2120 | 0.988 | 4 | 16 | 0 | -0.015 | 0.045 |
| YLR288C | 35198 | MEC3 | chromatin silencing at telomere | 2121 | 0.988 | 4 | 16 | 0 | 0.003 | 0.024 |
| YJR091C | 36903 | JSN1 | mRNA catabolism, deadenylatio | 2122 | 0.988 | 4 | 16 | 0 | 0.058 | 0.054 |
| YMR326C | 36075 | | | 2123 | 0.988 | 4 | 8 | 0 | -0.026 | 0.047 |
| YDR490C | 34324 | PKH1 | protein amino acid phosphoryla | 2124 | 0.988 | 4 | 16 | 0 | -0.031 | 0.075 |
| YMR087W | 36222 | | biological_process unknown | 2125 | 0.988 | 4 | 16 | 0 | -0.052 | 0.075 |
| YOR129C | 32385 | | biological_process unknown | 2126 | 0.988 | 4 | 16 | 0 | -0.008 | 0.041 |
| YPR018W | 35437 | RLF2 | nucleosome assembly | 2127 | 0.988 | 4 | 15 | 0 | 0.070 | 0.082 |
| YGR287C | 35939 | | biological_process unknown | 2128 | 0.988 | 4 | 16 | 0 | -0.111 | 0.031 |
| YER066W | 36586 | | biological_process unknown | 2129 | 0.988 | 4 | 16 | 0 | -0.001 | 0.031 |
| YMR174c | 30759 | PAI3 | vacuolar protein catabolism | 2130 | 0.988 | 4 | 16 | 0 | 0.052 | 0.035 |
| YBL029W | 33055 | | biological_process unknown | 2131 | 0.988 | 4 | 16 | 0 | -0.030 | 0.027 |

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|---|---|---|---|---|---|---|---|---|---|---|
| YEL068C | 30310 | | | 2132 | 0.989 | 4 | 16 | 0 | -0.005 | 0.047 |
| YMR251W | 30836 | | biological_process unknown | 2133 | 0.989 | 4 | 16 | 0 | -0.044 | 0.038 |
| YIL132C | 32291 | CSM2 | meiotic chromosome segregatic | 2134 | 0.989 | 4 | 16 | 0 | -0.070 | 0.032 |
| YGR022C | 34652 | | | 2135 | 0.989 | 4 | 16 | 0 | -0.017 | 0.046 |
| YOR363C | 31660 | PIP2 | peroxisome organization and bi | 2136 | 0.989 | 4 | 16 | 0 | -0.031 | 0.038 |
| YKR016W | 35087 | | biological_process unknown | 2137 | 0.989 | 4 | 16 | 0 | -0.183 | 0.072 |
| YML099C | 36497 | ARG81 | arginine metabolism* | 2138 | 0.989 | 4 | 12 | 0 | 0.008 | 0.109 |
| YKL123W | 34973 | | | 2139 | 0.989 | 4 | 16 | 0 | -0.064 | 0.067 |
| YBR071W | 33208 | | biological_process unknown | 2140 | 0.989 | 4 | 16 | 0 | 0.004 | 0.034 |
| YGL179C | 34546 | TOS3 | biological_process unknown | 2141 | 0.989 | 4 | 8 | 0 | -0.012 | 0.031 |
| YOR050C | 31826 | | | 2142 | 0.989 | 4 | 16 | 0 | -0.006 | 0.031 |
| YLL057C | 31545 | | sulfur metabolism | 2143 | 0.989 | 4 | 8 | 0 | 0.007 | 0.023 |
| YAL053W | 30354 | | biological_process unknown | 2144 | 0.989 | 4 | 8 | 0 | -0.015 | 0.016 |
| YGR126W | 34756 | | biological_process unknown | 2145 | 0.989 | 4 | 16 | 0 | 0.024 | 0.041 |
| YCR106W | 35822 | RDS1 | response to xenobiotic stimulus | 2146 | 0.989 | 4 | 16 | 0 | -0.033 | 0.048 |
| YBR120C | 33259 | CBP6 | protein biosynthesis | 2147 | 0.989 | 4 | 16 | 0 | 0.003 | 0.039 |
| YBR232C | 36385 | | | 2148 | 0.989 | 4 | 16 | 0 | 0.013 | 0.026 |
| YFR053C | 35867 | HXK1 | fructose metabolism | 2149 | 0.989 | 4 | 16 | 0 | -0.062 | 0.011 |
| YKL043W | 34892 | PHD1 | pseudohyphal growth | 2150 | 0.989 | 4 | 16 | 0 | -0.082 | 0.062 |
| YBL049W | 33075 | MOH1 | biological_process unknown | 2151 | 0.989 | 4 | 16 | 0 | -0.012 | 0.039 |
| YNL339C | 31105 | YRF1-6 | biological_process unknown | 2152 | 0.989 | 4 | 16 | 0 | 0.022 | 0.047 |
| YOR364W | 36757 | | | 2153 | 0.989 | 4 | 16 | 0 | -0.045 | 0.017 |
| YIL029C | 31422 | | biological_process unknown | 2154 | 0.989 | 4 | 8 | 0 | -0.065 | 0.017 |
| YMR164C | 30747 | MSS11 | pseudohyphal growth* | 2155 | 0.989 | 4 | 16 | 0 | 0.053 | 0.050 |
| YJR127C | 32605 | ZMS1 | biological_process unknown | 2156 | 0.989 | 4 | 16 | 0 | -0.037 | 0.016 |
| YDR480W | 34314 | DIG2 | invasive growth | 2157 | 0.989 | 4 | 16 | 0 | 0.011 | 0.035 |
| YMR297W | 30885 | PRC1 | vacuolar protein catabolism | 2158 | 0.989 | 4 | 8 | 0 | -0.024 | 0.019 |
| YHL047C | 30916 | ARN2 | iron ion homeostasis* | 2159 | 0.989 | 4 | 16 | 0 | -0.005 | 0.026 |
| YEL049W | 30290 | PAU2 | biological_process unknown | 2160 | 0.989 | 4 | 16 | 0 | 0.013 | 0.029 |
| YER174C | 36170 | GRX4 | response to oxidative stress | 2161 | 0.989 | 4 | 16 | 0 | 0.036 | 0.072 |
| YKR045C | 35116 | | biological_process unknown | 2162 | 0.989 | 4 | 16 | 0 | -0.038 | 0.024 |
| YKL025C | 34874 | PAN3 | DNA repair* | 2163 | 0.989 | 4 | 16 | 0 | 0.021 | 0.081 |
| YLL051C | 31539 | FRE6 | biological_process unknown | 2164 | 0.989 | 4 | 16 | 0 | 0.024 | 0.028 |
| YHL003C | 30960 | LAG1 | replicative cell aging* | 2165 | 0.989 | 4 | 16 | 0 | -0.028 | 0.008 |
| YMR153W | 30734 | NUP53 | mRNA-nucleus export* | 2166 | 0.989 | 4 | 16 | 0 | -0.043 | 0.025 |
| YJL066C | 31357 | MPM1 | biological_process unknown | 2167 | 0.989 | 4 | 16 | 0 | 0.028 | 0.045 |
| YBR270C | 37168 | | biological_process unknown | 2168 | 0.989 | 4 | 16 | 0 | -0.052 | 0.074 |
| YKR052C | 35123 | MRS4 | transport* | 2169 | 0.989 | 4 | 16 | 0 | -0.047 | 0.036 |
| YML018C | 30555 | | biological_process unknown | 2170 | 0.989 | 4 | 8 | 0 | 0.055 | 0.061 |
| YDR323C | 33682 | PEP7 | nonselective vesicle fusion* | 2171 | 0.989 | 4 | 16 | 0 | -0.026 | 0.023 |
| YKL061W | 34910 | | biological_process unknown | 2172 | 0.989 | 4 | 16 | 0 | -0.039 | 0.092 |
| YLR035C | 36433 | MLH2 | DNA repair | 2173 | 0.989 | 4 | 16 | 0 | 0.010 | 0.032 |
| YIL050W | 31443 | PCL7 | regulation of glycogen biosynthe | 2174 | 0.989 | 4 | 16 | 0 | 0.046 | 0.037 |
| YDL192W | 33890 | ARF1 | ER to Golgi transport* | 2175 | 0.989 | 4 | 12 | 0 | -0.217 | 0.021 |
| YOR178C | 32434 | GAC1 | meiosis* | 2176 | 0.989 | 4 | 16 | 0 | 0.031 | 0.050 |
| YMR316C | 36456 | | | 2177 | 0.989 | 4 | 16 | 0 | -0.059 | 0.032 |
| YKL093W | 34942 | MBR1 | aerobic respiration | 2178 | 0.989 | 4 | 16 | 0 | -0.025 | 0.033 |
| YFR016C | 35695 | | biological_process unknown | 2179 | 0.989 | 4 | 16 | 0 | -0.025 | 0.043 |
| YPL081W | 32747 | RPS9A | protein biosynthesis* | 2180 | 0.989 | 4 | 16 | 0 | -0.004 | 0.046 |
| YGR181W | 34811 | TIM13 | mitochondrial translocation | 2181 | 0.989 | 4 | 16 | 0 | -0.087 | 0.032 |
| YGL096W | 34463 | TOS8 | biological_process unknown | 2182 | 0.989 | 4 | 16 | 0 | -0.040 | 0.098 |
| YBL070C | 33096 | | | 2183 | 0.989 | 4 | 16 | 0 | -0.026 | 0.027 |

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|---|---|---|---|---|---|---|---|---|---|---|
| YEL010W | 30250 | | | 2184 | 0.989 | 4 | 16 | 0 | -0.002 | 0.043 |
| YJL045W | 31378 | | cellular respiration | 2185 | 0.989 | 4 | 16 | 0 | -0.028 | 0.040 |
| YFL034W | 35653 | | biological_process unknown | 2186 | 0.989 | 4 | 16 | 0 | 0.001 | 0.016 |
| YGR288W | 35940 | MAL13 | regulation of transcription, DNA | 2187 | 0.989 | 4 | 16 | 0 | -0.042 | 0.046 |
| YNL334C | 31110 | SNO2 | thiamin biosynthesis* | 2188 | 0.989 | 4 | 16 | 0 | -0.002 | 0.090 |
| YDR409W | 34245 | SIZ1 | protein sumoylation | 2189 | 0.990 | 4 | 16 | 0 | -0.016 | 0.052 |
| YER179W | 36175 | DMC1 | meiosis* | 2190 | 0.990 | 4 | 16 | 0 | 0.017 | 0.074 |
| YPL087W | 32741 | YDC1 | response to heat* | 2191 | 0.990 | 4 | 15 | 0 | 0.020 | 0.018 |
| YJL007C | 36775 | | | 2192 | 0.990 | 4 | 16 | 0 | 0.009 | 0.032 |
| YPL073C | 32756 | | | 2193 | 0.990 | 4 | 16 | 0 | 0.006 | 0.029 |
| YBR130C | 33269 | SHE3 | mRNA localization, intracellular | 2194 | 0.990 | 4 | 16 | 0 | 0.031 | 0.034 |
| YLR205C | 34154 | HMX1 | iron ion homeostasis | 2195 | 0.990 | 4 | 16 | 0 | -0.050 | 0.046 |
| YGR125W | 34755 | | biological_process unknown | 2196 | 0.990 | 4 | 16 | 0 | -0.016 | 0.059 |
| YFL041W | 35662 | FET5 | iron ion transport | 2197 | 0.990 | 4 | 16 | 0 | -0.063 | 0.017 |
| YKL068W | 34917 | NUP100 | mRNA-nucleus export* | 2198 | 0.990 | 4 | 16 | 0 | -0.014 | 0.060 |
| YER073W | 30213 | ALD5 | electron transport | 2199 | 0.990 | 4 | 16 | 0 | -0.006 | 0.071 |
| YPR063C | 35482 | | biological_process unknown | 2200 | 0.990 | 4 | 15 | 0 | 0.031 | 0.048 |
| YKR087C | 36003 | | biological_process unknown | 2201 | 0.990 | 4 | 16 | 0 | -0.022 | 0.034 |
| YBL088C | 33114 | TEL1 | telomerase-dependent telomere | 2202 | 0.990 | 4 | 16 | 0 | -0.039 | 0.005 |
| YBR242W | 33382 | | biological_process unknown | 2203 | 0.990 | 4 | 16 | 0 | -0.045 | 0.029 |
| YMR284W | 30870 | YKU70 | chromatin assembly/disassemb | 2204 | 0.990 | 3 | 6 | 0 | | |
| YKL174C | 35024 | | biological_process unknown | 2205 | 0.990 | 4 | 16 | 0 | 0.071 | 0.063 |
| YML088W | 30482 | UFO1 | ubiquitin-dependent protein cata | 2206 | 0.990 | 4 | 8 | 0 | -0.002 | 0.040 |
| YGR151C | 34781 | | | 2207 | 0.990 | 4 | 16 | 0 | -0.011 | 0.037 |
| YJR094C | 36905 | IME1 | meiosis | 2208 | 0.990 | 4 | 16 | 0 | -0.018 | 0.053 |
| YEL028W | 30269 | | | 2209 | 0.990 | 4 | 16 | 0 | 0.001 | 0.050 |
| YPL088W | 32740 | | aldehyde metabolism | 2210 | 0.990 | 4 | 16 | 0 | 0.044 | 0.076 |
| YCR069W | 37193 | CPR4 | biological_process unknown | 2211 | 0.990 | 4 | 16 | 0 | 0.001 | 0.011 |
| YPR084W | 35501 | | biological_process unknown | 2212 | 0.990 | 4 | 8 | 0 | -0.035 | 0.112 |
| YDL200C | 33898 | MGT1 | DNA dealkylation | 2213 | 0.990 | 4 | 16 | 0 | -0.024 | 0.055 |
| YDR521W | 34355 | | | 2214 | 0.990 | 4 | 16 | 0 | -0.038 | 0.036 |
| YNL201C | 32011 | PSY2 | biological_process unknown | 2215 | 0.990 | 4 | 16 | 0 | 0.007 | 0.033 |
| YOL091W | 36241 | SPO21 | meiosis* | 2216 | 0.990 | 4 | 16 | 0 | -0.020 | 0.025 |
| YMR096W | 36536 | SNZ1 | pyridoxine metabolism* | 2217 | 0.990 | 4 | 16 | 0 | -0.001 | 0.020 |
| YOR049C | 31825 | RSB1 | fatty acid transport | 2218 | 0.990 | 4 | 14 | 0 | 0.030 | 0.009 |
| YPL206C | 31086 | | biological_process unknown | 2219 | 0.990 | 4 | 16 | 0 | -0.028 | 0.042 |
| YDR514C | 34348 | | biological_process unknown | 2220 | 0.990 | 4 | 16 | 0 | 0.005 | 0.067 |
| YJL051W | 31372 | | biological_process unknown | 2221 | 0.990 | 4 | 16 | 0 | 0.007 | 0.032 |
| YHR180W | 36633 | | | 2222 | 0.990 | 4 | 16 | 0 | -0.033 | 0.031 |
| YGR014W | 34644 | MSB2 | establishment of cell polarity (se | 2223 | 0.990 | 4 | 16 | 0 | 0.047 | 0.041 |
| YCL011C | 33419 | GBP2 | telomere maintenance* | 2224 | 0.990 | 4 | 16 | 0 | -0.023 | 0.061 |
| YER098W | 36404 | UBP9 | protein deubiquitination | 2225 | 0.990 | 4 | 16 | 0 | 0.063 | 0.077 |
| YHR046C | 31873 | INM1 | myo-inositol metabolism | 2226 | 0.990 | 4 | 16 | 0 | -0.045 | 0.095 |
| YKR028W | 37045 | SAP190 | G1/S transition of mitotic cell cy | 2227 | 0.990 | 4 | 16 | 0 | 0.000 | 0.049 |
| YML082W | 30488 | | sulfur metabolism | 2228 | 0.990 | 4 | 8 | 0 | 0.015 | 0.003 |
| YGR212W | 34842 | | biological_process unknown | 2229 | 0.990 | 4 | 16 | 0 | -0.055 | 0.122 |
| YPR138C | 35553 | MEP3 | ammonium transport | 2230 | 0.990 | 4 | 16 | 0 | -0.001 | 0.024 |
| YJL108C | 31315 | PRM10 | conjugation with cellular fusion | 2231 | 0.990 | 4 | 16 | 0 | -0.009 | 0.086 |
| YER142C | 36140 | MAG1 | DNA dealkylation | 2232 | 0.990 | 4 | 16 | 0 | 0.010 | 0.056 |
| YER068C- | 30208 | | | 2233 | 0.990 | 4 | 8 | 0 | 0.082 | 0.006 |
| YDL046W | 33743 | NPC2 | biological_process unknown | 2234 | 0.990 | 4 | 16 | 0 | -0.028 | 0.047 |
| YDR479C | 34313 | PEX29 | peroxisome organization and bi | 2235 | 0.990 | 4 | 15 | 0 | -0.030 | 0.045 |

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|---|---|---|---|---|---|---|---|---|---|---|
| YFR048W | 35862 | RMD8 | biological_process unknown | 2236 | 0.990 | 4 | 16 | 0 | -0.012 | 0.046 |
| YOR225W | 32481 | | | 2237 | 0.991 | 4 | 16 | 0 | -0.005 | 0.039 |
| YGL121C | 34488 | GPG1 | signal transduction | 2238 | 0.991 | 4 | 16 | 0 | 0.020 | 0.097 |
| YMR221C | 30807 | | biological_process unknown | 2239 | 0.991 | 4 | 16 | 0 | -0.007 | 0.034 |
| YDR370C | 34206 | | biological_process unknown | 2240 | 0.991 | 4 | 16 | 0 | -0.056 | 0.057 |
| YGL057C | 34424 | | biological_process unknown | 2241 | 0.991 | 4 | 15 | 0 | -0.053 | 0.055 |
| YJR134C | 36932 | SGM1 | biological_process unknown | 2242 | 0.991 | 4 | 16 | 0 | -0.062 | 0.041 |
| YNR029C | 35404 | | biological_process unknown | 2243 | 0.991 | 4 | 16 | 0 | -0.064 | 0.010 |
| YER162C | 36158 | RAD4 | nucleotide-excision repair, DNA | 2244 | 0.991 | 4 | 16 | 0 | -0.093 | 0.072 |
| YIL095W | 31486 | PRK1 | protein amino acid phosphoryla | 2245 | 0.991 | 4 | 15 | 0 | 0.062 | 0.056 |
| YBR022W | 33159 | | biological_process unknown | 2246 | 0.991 | 4 | 16 | 0 | -0.032 | 0.025 |
| YOR010C | 31786 | TIR2 | response to stress | 2247 | 0.991 | 4 | 16 | 0 | 0.007 | 0.039 |
| YGR010W | 34640 | NMA2 | nicotinamide adenine dinucleoti | 2248 | 0.991 | 4 | 16 | 0 | -0.072 | 0.013 |
| YBR188C | 33328 | NTC20 | nuclear mRNA splicing, via splic | 2249 | 0.991 | 4 | 16 | 0 | 0.031 | 0.013 |
| YPL099C | 32153 | | biological_process unknown | 2250 | 0.991 | 4 | 16 | 0 | 0.016 | 0.032 |
| YDL223C | 33921 | HBT1 | cellular morphogenesis during c | 2251 | 0.991 | 4 | 12 | 0 | 0.052 | 0.047 |
| YER134C | 36133 | | biological_process unknown | 2252 | 0.991 | 4 | 16 | 0 | 0.035 | 0.031 |
| YLR211C | 34160 | | biological_process unknown | 2253 | 0.991 | 4 | 16 | 0 | 0.006 | 0.036 |
| YOR105W | 32361 | | | 2254 | 0.991 | 4 | 16 | 0 | 0.038 | 0.034 |
| YML070W | 36483 | DAK1 | response to stress* | 2255 | 0.991 | 4 | 15 | 0 | 0.039 | 0.016 |
| YFR023W | 35702 | PES4 | DNA dependent DNA replicatio | 2256 | 0.991 | 4 | 16 | 0 | -0.015 | 0.010 |
| YPL164C | 32088 | MLH3 | meiotic recombination* | 2257 | 0.991 | 4 | 16 | 0 | 0.000 | 0.046 |
| YIL092W | 37302 | | biological_process unknown | 2258 | 0.991 | 4 | 16 | 0 | -0.033 | 0.025 |
| YBR203W | 33343 | COS111 | signal transduction | 2259 | 0.991 | 4 | 16 | 0 | -0.036 | 0.042 |
| YJR106W | 36914 | ECM27 | cell wall organization and bioge | 2260 | 0.991 | 4 | 16 | 0 | -0.004 | 0.033 |
| YGL082W | 34449 | | biological_process unknown | 2261 | 0.991 | 4 | 16 | 0 | -0.045 | 0.026 |
| YJL135W | 31290 | | | 2262 | 0.991 | 4 | 16 | 0 | -0.042 | 0.037 |
| YHR028C | 30991 | DAP2 | protein processing | 2263 | 0.991 | 4 | 16 | 0 | 0.069 | 0.035 |
| YML086C | 36736 | ALO1 | response to oxidative stress | 2264 | 0.991 | 4 | 16 | 0 | -0.055 | 0.058 |
| YDR351W | 34188 | SBE2 | cell wall organization and bioge | 2265 | 0.991 | 4 | 16 | 0 | -0.017 | 0.022 |
| YCR107W | 37253 | AAD3 | aldehyde metabolism | 2266 | 0.991 | 4 | 8 | 0 | 0.034 | 0.021 |
| YMR210W | 30796 | | biological_process unknown | 2267 | 0.991 | 4 | 16 | 0 | -0.033 | 0.080 |
| YDR273W | 33632 | DON1 | meiosis* | 2268 | 0.991 | 4 | 16 | 0 | -0.023 | 0.077 |
| YLR415C | 35323 | | biological_process unknown | 2269 | 0.991 | 4 | 16 | 0 | -0.016 | 0.063 |
| YOR134W | 32390 | BAG7 | small GTPase mediated signal t | 2270 | 0.991 | 4 | 16 | 0 | -0.064 | 0.041 |
| YMR306C | 30896 | | | 2271 | 0.991 | 4 | 16 | 0 | 0.047 | 0.041 |
| YOR055W | 31831 | | | 2272 | 0.991 | 4 | 16 | 0 | -0.006 | 0.024 |
| YGL216W | 34582 | KIP3 | mitotic spindle assembly (sensu | 2273 | 0.991 | 4 | 8 | 0 | 0.009 | 0.041 |
| YKR021W | 35092 | | biological_process unknown | 2274 | 0.991 | 4 | 16 | 0 | -0.060 | 0.043 |
| YGR141W | 34771 | VPS62 | protein-vacuolar targeting | 2275 | 0.991 | 4 | 16 | 0 | -0.002 | 0.076 |
| YBR212W | 33352 | NGR1 | regulation of growth | 2276 | 0.991 | 4 | 16 | 0 | 0.020 | 0.046 |
| YNR073C | 36232 | | biological_process unknown | 2277 | 0.991 | 4 | 8 | 0 | -0.065 | 0.092 |
| YDR146C | 34080 | SWI5 | G1-specific transcription in mito | 2278 | 0.991 | 4 | 15 | 0 | 0.130 | 0.042 |
| YER092W | 36397 | IES5 | biological_process unknown | 2279 | 0.991 | 4 | 16 | 0 | -0.042 | 0.041 |
| YOR300W | 31596 | | | 2280 | 0.991 | 4 | 16 | 0 | -0.037 | 0.057 |
| YDL240W | 33937 | LRG1 | small GTPase mediated signal t | 2281 | 0.991 | 4 | 16 | 0 | 0.040 | 0.056 |
| YER109C | 36107 | FLO8 | pseudohyphal growth* | 2282 | 0.991 | 4 | 16 | 0 | 0.029 | 0.048 |
| YBR228W | 33368 | SLX1 | DNA repair | 2283 | 0.991 | 4 | 16 | 0 | 0.014 | 0.053 |
| YNL035C | 35360 | | biological_process unknown | 2284 | 0.991 | 4 | 16 | 0 | -0.038 | 0.063 |
| YMR122C | 36563 | | | 2285 | 0.992 | 4 | 16 | 0 | -0.020 | 0.074 |
| YJR040W | 36838 | GEF1 | cation homeostasis | 2286 | 0.992 | 4 | 16 | 0 | 0.037 | 0.051 |
| YBR240C | 33380 | THI2 | thiamin biosynthesis | 2287 | 0.992 | 4 | 16 | 0 | -0.045 | 0.051 |

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|---|---|---|---|---|---|---|---|---|---|---|
| YDR375C | 34211 | BCS1 | aerobic respiration | 2288 | 0.992 | 4 | 16 | 0 | -0.147 | 0.047 |
| YLL028W | 31516 | TPO1 | polyamine transport | 2289 | 0.992 | 4 | 16 | 0 | -0.038 | 0.025 |
| YKR095W | 37104 | MLP1 | protein-nucleus import | 2290 | 0.992 | 4 | 16 | 0 | -0.033 | 0.043 |
| YOR238W | 32494 | | biological_process unknown | 2291 | 0.992 | 4 | 12 | 0 | -0.030 | 0.027 |
| YDR239C | 33598 | | biological_process unknown | 2292 | 0.992 | 4 | 16 | 0 | -0.043 | 0.064 |
| YNL085W | 37228 | MKT1 | viral life cycle | 2293 | 0.992 | 4 | 16 | 0 | 0.007 | 0.031 |
| YER058W | 30194 | PET117 | cytochrome c oxidase biogenes | 2294 | 0.992 | 4 | 16 | 0 | -0.121 | 0.032 |
| YFR038W | 35852 | | biological_process unknown | 2295 | 0.992 | 4 | 16 | 0 | -0.060 | 0.024 |
| YPL272C | 31020 | | biological_process unknown | 2296 | 0.992 | 4 | 16 | 0 | 0.053 | 0.046 |
| YOL032W | 31723 | | biological_process unknown | 2297 | 0.992 | 4 | 12 | 0 | -0.032 | 0.011 |
| YLR179C | 34128 | | biological_process unknown | 2298 | 0.992 | 4 | 16 | 0 | -0.022 | 0.033 |
| YPL222W | 31070 | | biological_process unknown | 2299 | 0.992 | 4 | 16 | 0 | -0.054 | 0.027 |
| YBR072W | 33209 | HSP26 | response to stress* | 2300 | 0.992 | 4 | 16 | 0 | 0.019 | 0.018 |
| YOR043W | 31819 | WHI2 | response to stress* | 2301 | 0.992 | 4 | 16 | 0 | -0.026 | 0.043 |
| YDL194W | 37201 | SNF3 | signal transduction* | 2302 | 0.992 | 4 | 12 | 0 | -0.065 | 0.011 |
| YMR111C | 36551 | | biological_process unknown | 2303 | 0.992 | 4 | 16 | 0 | 0.076 | 0.033 |
| YGR221C | 35874 | TOS2 | biological_process unknown | 2304 | 0.992 | 4 | 16 | 0 | -0.033 | 0.018 |
| YGR154C | 34784 | | biological_process unknown | 2305 | 0.992 | 4 | 16 | 0 | -0.021 | 0.041 |
| YOR197W | 32453 | MCA1 | apoptosis | 2306 | 0.992 | 4 | 16 | 0 | 0.016 | 0.051 |
| YBR248C | 33388 | HIS7 | histidine biosynthesis | 2307 | 0.992 | 4 | 16 | 0 | -0.041 | 0.042 |
| YNL046W | 35371 | | biological_process unknown | 2308 | 0.992 | 4 | 15 | 0 | -0.063 | 0.054 |
| YMR082C | 36216 | | | 2309 | 0.992 | 4 | 16 | 0 | -0.010 | 0.044 |
| YMR158C | 36070 | | | 2310 | 0.992 | 4 | 16 | 0 | 0.008 | 0.029 |
| YJL119C | 31307 | | | 2311 | 0.992 | 4 | 16 | 0 | 0.030 | 0.013 |
| YPL185W | 32066 | | | 2312 | 0.992 | 4 | 16 | 0 | -0.037 | 0.041 |
| YKL075C | 34924 | | biological_process unknown | 2313 | 0.992 | 4 | 16 | 0 | -0.048 | 0.045 |
| YPL009C | 32819 | | biological_process unknown | 2314 | 0.992 | 4 | 16 | 0 | 0.001 | 0.050 |
| YMR030W | 30605 | | calcium-mediated signaling | 2315 | 0.992 | 4 | 8 | 0 | 0.012 | 0.104 |
| YEL067C | 30309 | | | 2316 | 0.992 | 4 | 16 | 0 | 0.014 | 0.033 |
| YNL135C | 32941 | FPR1 | biological_process unknown | 2317 | 0.992 | 4 | 15 | 0 | -0.069 | 0.059 |
| YGL114W | 34481 | | biological_process unknown | 2318 | 0.992 | 4 | 12 | 0 | -0.026 | 0.057 |
| YOR067C | 31843 | ALG8 | dolichol-linked oligosaccharide l | 2319 | 0.992 | 4 | 16 | 0 | 0.057 | 0.014 |
| YKL185W | 35035 | ASH1 | pseudohyphal growth* | 2320 | 0.992 | 4 | 16 | 0 | -0.105 | 0.025 |
| YPR083W | 37401 | MDM36 | mitochondrion organization and | 2321 | 0.992 | 4 | 16 | 0 | -0.022 | 0.068 |
| YBL068W | 33094 | PRS4 | histidine biosynthesis* | 2322 | 0.992 | 4 | 16 | 0 | -0.011 | 0.037 |
| YOR378W | 31675 | | biological_process unknown | 2323 | 0.992 | 4 | 16 | 0 | 0.016 | 0.034 |
| YOL028C | 31719 | YAP7 | positive regulation of transcripti | 2324 | 0.993 | 4 | 15 | 0 | 0.079 | 0.054 |
| YBL061C | 33087 | SKT5 | response to osmotic stress* | 2325 | 0.993 | 4 | 16 | 0 | -0.023 | 0.047 |
| YDR346C | 34183 | SVF1 | biological_process unknown | 2326 | 0.993 | 4 | 15 | 0 | 0.041 | 0.084 |
| YOR036W | 31812 | PEP12 | Golgi to vacuole transport | 2327 | 0.993 | 4 | 12 | 0 | -0.048 | 0.056 |
| YLL046C | 31534 | RNP1 | ribosome biogenesis and assen | 2328 | 0.993 | 4 | 16 | 0 | 0.011 | 0.039 |
| YIL165C | 32324 | | biological_process unknown | 2329 | 0.993 | 4 | 16 | 0 | 0.003 | 0.021 |
| YPR077C | 35496 | | | 2330 | 0.993 | 4 | 8 | 0 | -0.054 | 0.015 |
| YAR014C | 30413 | BUD14 | cellular morphogenesis during v | 2331 | 0.993 | 4 | 8 | 0 | 0.099 | 0.065 |
| YDR217C | 33576 | RAD9 | DNA repair* | 2332 | 0.993 | 4 | 16 | 0 | 0.073 | 0.019 |
| YDR112W | 34046 | | | 2333 | 0.993 | 4 | 16 | 0 | 0.002 | 0.062 |
| YMR048W | 36740 | CSM3 | meiotic chromosome segregatic | 2334 | 0.993 | 4 | 16 | 0 | 0.001 | 0.016 |
| YKL038W | 34887 | RGT1 | glucose metabolism | 2335 | 0.993 | 4 | 16 | 0 | -0.043 | 0.029 |
| YKL166C | 35016 | TPK3 | protein amino acid phosphoryla | 2336 | 0.993 | 4 | 15 | 0 | -0.008 | 0.080 |
| YDL118W | 33815 | | | 2337 | 0.993 | 4 | 12 | 0 | -0.087 | 0.038 |
| YKL066W | 34915 | | | 2338 | 0.993 | 4 | 8 | 0 | -0.033 | 0.081 |
| YOR316C | 31613 | COT1 | zinc ion homeostasis* | 2339 | 0.993 | 4 | 16 | 0 | 0.069 | 0.031 |

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|---|---|---|---|---|---|---|---|---|---|---|
| YAL042W | 30363 | ERV46 | ER to Golgi transport | 2340 | 0.993 | 4 | 8 | 0 | 0.017 | 0.008 |
| YCL002C | 33410 | | biological_process unknown | 2341 | 0.993 | 4 | 8 | 0 | -0.052 | 0.035 |
| YNL194C | 32018 | | biological_process unknown | 2342 | 0.993 | 4 | 16 | 0 | 0.013 | 0.033 |
| YMR204C | 30790 | | biological_process unknown | 2343 | 0.993 | 4 | 16 | 0 | -0.044 | 0.036 |
| YMR006C | 30581 | PLB2 | glycerophospholipid metabolism | 2344 | 0.993 | 4 | 8 | 0 | 0.080 | 0.064 |
| YNL159C | 32053 | ASI2 | ubiquitin-dependent protein cata | 2345 | 0.993 | 4 | 16 | 0 | 0.020 | 0.049 |
| YLR356W | 35265 | | biological_process unknown | 2346 | 0.993 | 4 | 16 | 0 | -0.043 | 0.035 |
| YDR122W | 34056 | KIN1 | biological_process unknown | 2347 | 0.993 | 4 | 12 | 0 | -0.012 | 0.035 |
| YLR112W | 32723 | | | 2348 | 0.993 | 4 | 16 | 0 | -0.044 | 0.022 |
| YHR127W | 36623 | | biological_process unknown | 2349 | 0.993 | 4 | 16 | 0 | 0.006 | 0.032 |
| YML071C | 36484 | COG8 | intra-Golgi transport | 2350 | 0.993 | 4 | 16 | 0 | -0.029 | 0.014 |
| YPL192C | 31100 | PRM3 | karyogamy | 2351 | 0.993 | 4 | 16 | 0 | 0.055 | 0.008 |
| YOR246C | 32502 | | biological_process unknown | 2352 | 0.993 | 4 | 16 | 0 | 0.028 | 0.069 |
| YGR194C | 34824 | XKS1 | xylulose catabolism | 2353 | 0.993 | 4 | 16 | 0 | -0.020 | 0.036 |
| YCR030C | 37180 | SYP1 | biological_process unknown | 2354 | 0.993 | 4 | 16 | 0 | 0.028 | 0.050 |
| YIL009C-A | 35950 | EST3 | telomerase-dependent telomere | 2355 | 0.993 | 4 | 8 | 0 | -0.038 | 0.015 |
| YEL056W | 30297 | HAT2 | chromatin silencing at telomere | 2356 | 0.993 | 4 | 16 | 0 | 0.004 | 0.036 |
| YPR152C | 35567 | | biological_process unknown | 2357 | 0.993 | 4 | 16 | 0 | -0.046 | 0.035 |
| YLR126C | 34083 | | biological_process unknown | 2358 | 0.993 | 4 | 16 | 0 | -0.028 | 0.045 |
| YCR060W | 37189 | | biological_process unknown | 2359 | 0.993 | 4 | 16 | 0 | 0.038 | 0.013 |
| YER081W | 30221 | SER3 | serine family amino acid biosyn | 2360 | 0.994 | 4 | 16 | 0 | 0.007 | 0.035 |
| YKR031C | 35102 | SPO14 | exocytosis* | 2361 | 0.994 | 4 | 14 | 0 | 0.021 | 0.018 |
| YBR129C | 33268 | OPY1 | conjugation with cellular fusion | 2362 | 0.994 | 4 | 16 | 0 | 0.033 | 0.024 |
| YPL216W | 31076 | | biological_process unknown | 2363 | 0.994 | 4 | 16 | 0 | 0.035 | 0.030 |
| YPL051W | 32777 | ARL3 | intracellular protein transport | 2364 | 0.994 | 4 | 12 | 0 | 0.023 | 0.065 |
| YGL154C | 34521 | LYS5 | lysine biosynthesis, aminoadipic | 2365 | 0.994 | 4 | 16 | 0 | 0.017 | 0.051 |
| YKL079W | 34928 | SMY1 | exocytosis | 2366 | 0.994 | 4 | 8 | 0 | -0.031 | 0.065 |
| YIL166C | 32325 | | transport | 2367 | 0.994 | 4 | 12 | 0 | 0.020 | 0.038 |
| YOL125W | 37126 | | biological_process unknown | 2368 | 0.994 | 4 | 16 | 0 | 0.006 | 0.054 |
| YMR283C | 30869 | RIT1 | charged-tRNA modification | 2369 | 0.994 | 4 | 16 | 0 | 0.031 | 0.062 |
| YNL078W | 37223 | NIS1 | regulation of mitosis | 2370 | 0.994 | 4 | 16 | 0 | -0.014 | 0.024 |
| YKL115C | 37027 | | | 2371 | 0.994 | 4 | 16 | 0 | -0.074 | 0.082 |
| YDR336W | 33695 | | biological_process unknown | 2372 | 0.994 | 4 | 16 | 0 | 0.006 | 0.002 |
| YML030W | 30543 | | biological_process unknown | 2373 | 0.994 | 4 | 8 | 0 | 0.050 | 0.078 |
| YDR467C | 34301 | | | 2374 | 0.994 | 4 | 8 | 0 | -0.025 | 0.032 |
| YLR146C | 36945 | SPE4 | pantothenate biosynthesis* | 2375 | 0.994 | 4 | 16 | 0 | 0.010 | 0.029 |
| YMR100W | 36540 | MUB1 | regulation of budding | 2376 | 0.994 | 4 | 16 | 0 | 0.017 | 0.020 |
| YLL012W | 31500 | | biological_process unknown | 2377 | 0.994 | 4 | 16 | 0 | -0.017 | 0.014 |
| YLR427W | 36030 | MAG2 | biological_process unknown | 2378 | 0.994 | 4 | 16 | 0 | -0.021 | 0.039 |
| YPL170W | 32082 | DAP1 | sterol metabolism | 2379 | 0.994 | 4 | 16 | 0 | 0.007 | 0.073 |
| YJR099W | 36911 | YUH1 | protein deubiquitination | 2380 | 0.994 | 4 | 16 | 0 | 0.016 | 0.024 |
| YLR265C | 35174 | NEJ1 | DNA repair* | 2381 | 0.994 | 4 | 16 | 0 | 0.001 | 0.031 |
| YMR258C | 30844 | | biological_process unknown | 2382 | 0.994 | 4 | 16 | 0 | 0.034 | 0.029 |
| YNL257C | 31187 | SIP3 | transcription initiation from Pol I | 2383 | 0.994 | 4 | 16 | 0 | 0.011 | 0.063 |
| YDL180W | 33878 | | biological_process unknown | 2384 | 0.994 | 4 | 16 | 0 | -0.010 | 0.061 |
| YDR277C | 33636 | MTH1 | signal transduction* | 2385 | 0.994 | 4 | 16 | 0 | -0.008 | 0.099 |
| YBR250W | 33390 | | biological_process unknown | 2386 | 0.994 | 4 | 16 | 0 | -0.031 | 0.078 |
| YLR389C | 35298 | STE23 | proteolysis and peptidolysis* | 2387 | 0.994 | 4 | 15 | 0 | -0.003 | 0.015 |
| YOL065C | 31757 | INP54 | exocytosis | 2388 | 0.994 | 4 | 16 | 0 | 0.014 | 0.045 |
| YPL240C | 31052 | HSP82 | response to stress* | 2389 | 0.994 | 4 | 16 | 0 | -0.005 | 0.035 |
| YDL203C | 33901 | | biological_process unknown | 2390 | 0.994 | 4 | 11 | 0 | 0.032 | 0.020 |
| YOR243C | 32499 | PUS7 | pseudouridine synthesis | 2391 | 0.994 | 4 | 16 | 0 | 0.014 | 0.047 |

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|---|---|---|---|---|---|---|---|---|---|---|
| YFL040W | 35661 | | biological_process unknown | 2392 | 0.994 | 4 | 16 | 0 | -0.011 | 0.042 |
| YOR193W | 32449 | PEX27 | biological_process unknown | 2393 | 0.994 | 4 | 16 | 0 | 0.003 | 0.046 |
| YJR115W | 32593 | | biological_process unknown | 2394 | 0.994 | 4 | 16 | 0 | -0.040 | 0.048 |
| YGL149W | 34516 | | | 2395 | 0.994 | 4 | 16 | 0 | 0.063 | 0.131 |
| YLR224W | 34173 | | ubiquitin-dependent protein cata | 2396 | 0.994 | 4 | 16 | 0 | -0.003 | 0.041 |
| YOR377W | 31674 | ATF1 | fermentation | 2397 | 0.994 | 4 | 16 | 0 | 0.022 | 0.014 |
| YDL161W | 33859 | ENT1 | actin filament organization* | 2398 | 0.995 | 4 | 16 | 0 | -0.017 | 0.034 |
| YHR057C | 31885 | CPR2 | biological_process unknown | 2399 | 0.995 | 4 | 8 | 0 | 0.015 | 0.006 |
| YML109W | 36509 | ZDS2 | establishment of cell polarity (se | 2400 | 0.995 | 4 | 16 | 0 | 0.024 | 0.092 |
| YOR286W | 32542 | | biological_process unknown | 2401 | 0.995 | 4 | 16 | 0 | 0.077 | 0.067 |
| YJR024C | 36822 | | biological_process unknown | 2402 | 0.995 | 4 | 15 | 0 | 0.033 | 0.032 |
| YPL163C | 32089 | SVS1 | response to chemical substance | 2403 | 0.995 | 4 | 16 | 0 | -0.008 | 0.099 |
| YHR155W | 32849 | | biological_process unknown | 2404 | 0.995 | 4 | 16 | 0 | -0.041 | 0.060 |
| YLR173W | 34122 | | biological_process unknown | 2405 | 0.995 | 4 | 16 | 0 | 0.039 | 0.015 |
| YPR158W | 35573 | | biological_process unknown | 2406 | 0.995 | 4 | 15 | 0 | -0.017 | 0.033 |
| YMR075W | 36209 | RCO1 | biological_process unknown | 2407 | 0.995 | 4 | 14 | 0 | -0.047 | 0.032 |
| YHL028W | 30935 | WSC4 | cell wall organization and bioge | 2408 | 0.995 | 4 | 16 | 0 | 0.001 | 0.054 |
| YIR044C | 37307 | | biological_process unknown | 2409 | 0.995 | 4 | 16 | 0 | 0.014 | 0.038 |
| YLL053C | 31541 | | biological_process unknown | 2410 | 0.995 | 4 | 16 | 0 | -0.037 | 0.019 |
| YKR075C | 35991 | | biological_process unknown | 2411 | 0.995 | 4 | 16 | 0 | -0.141 | 0.024 |
| YLR327C | 35236 | | biological_process unknown | 2412 | 0.995 | 4 | 8 | 0 | -0.098 | 0.015 |
| YLR023C | 31578 | | biological_process unknown | 2413 | 0.995 | 4 | 16 | 0 | 0.013 | 0.024 |
| YLR454W | 36057 | | biological_process unknown | 2414 | 0.995 | 4 | 16 | 0 | -0.055 | 0.020 |
| YBR287W | 37173 | | biological_process unknown | 2415 | 0.995 | 4 | 16 | 0 | 0.019 | 0.047 |
| YBR227C | 33367 | MCX1 | biological_process unknown | 2416 | 0.995 | 4 | 16 | 0 | -0.016 | 0.098 |
| YLR269C | 35178 | | | 2417 | 0.995 | 4 | 16 | 0 | -0.044 | 0.054 |
| YJL084C | 31339 | | biological_process unknown | 2418 | 0.995 | 4 | 16 | 0 | -0.045 | 0.026 |
| YGL254W | 34621 | FZF1 | positive regulation of transcripti | 2419 | 0.995 | 4 | 16 | 0 | -0.031 | 0.036 |
| YKL070W | 34919 | | | 2420 | 0.995 | 4 | 16 | 0 | -0.044 | 0.043 |
| YDL229W | 33926 | SSB1 | protein biosynthesis | 2421 | 0.995 | 4 | 16 | 0 | -0.019 | 0.052 |
| YDR213W | 33572 | UPC2 | sterol biosynthesis* | 2422 | 0.995 | 4 | 16 | 0 | 0.004 | 0.022 |
| YHR177W | 32871 | GON3 | biological_process unknown | 2423 | 0.995 | 4 | 16 | 0 | 0.002 | 0.010 |
| YJR103W | 32581 | URA8 | phospholipid biosynthesis* | 2424 | 0.995 | 4 | 16 | 0 | -0.020 | 0.035 |
| YNL117W | 32959 | MLS1 | glyoxylate cycle | 2425 | 0.995 | 4 | 16 | 0 | 0.019 | 0.072 |
| YJL103C | 37367 | | biological_process unknown | 2426 | 0.995 | 4 | 16 | 0 | 0.029 | 0.053 |
| YGR088W | 34718 | CTT1 | response to stress | 2427 | 0.995 | 4 | 16 | 0 | -0.023 | 0.034 |
| YOR298C | 37335 | MBF1 | positive regulation of transcripti | 2428 | 0.995 | 4 | 16 | 0 | -0.051 | 0.028 |
| YOL122C | 36272 | SMF1 | manganese ion transport | 2429 | 0.995 | 4 | 16 | 0 | -0.040 | 0.075 |
| YNL041C | 35366 | COG6 | intra-Golgi transport | 2430 | 0.995 | 4 | 16 | 0 | -0.004 | 0.010 |
| YMR119W | 36560 | | | 2431 | 0.995 | 4 | 12 | 0 | -0.021 | 0.059 |
| YJR005W | 36802 | APL1 | vesicle-mediated transport | 2432 | 0.995 | 4 | 16 | 0 | -0.024 | 0.035 |
| YNR032W | 35407 | PPG1 | protein amino acid dephosphory | 2433 | 0.995 | 4 | 16 | 0 | -0.043 | 0.074 |
| YCR067C | 37192 | SED4 | ER to Golgi transport | 2434 | 0.995 | 4 | 16 | 0 | -0.017 | 0.055 |
| YLR306W | 35214 | UBC12 | protein monoubiquitination* | 2435 | 0.995 | 4 | 8 | 0 | 0.003 | 0.001 |
| YOL055C | 31747 | THI20 | thiamin biosynthesis | 2436 | 0.995 | 4 | 16 | 0 | 0.002 | 0.039 |
| YLR081W | 32692 | GAL2 | galactose metabolism* | 2437 | 0.995 | 4 | 16 | 0 | -0.009 | 0.053 |
| YJL118W | 31306 | | biological_process unknown | 2438 | 0.995 | 4 | 16 | 0 | 0.039 | 0.022 |
| YJL161W | 37010 | | biological_process unknown | 2439 | 0.995 | 4 | 16 | 0 | -0.090 | 0.062 |
| YLR031W | 36429 | | biological_process unknown | 2440 | 0.995 | 4 | 16 | 0 | 0.063 | 0.065 |
| YJL171C | 31254 | | biological_process unknown | 2441 | 0.995 | 4 | 16 | 0 | 0.081 | 0.031 |
| YLR285W | 35194 | NNT1 | chromatin silencing at ribosoma | 2442 | 0.995 | 4 | 16 | 0 | -0.017 | 0.053 |
| YDL168W | 33866 | SFA1 | formaldehyde assimilation | 2443 | 0.995 | 4 | 16 | 0 | -0.013 | 0.042 |

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|---|---|---|---|---|---|---|---|---|---|---|
| YMR115W | 36555 | | biological_process unknown | 2444 | 0.995 | 4 | 12 | 0 | -0.026 | 0.019 |
| YDL173W | 33871 | | biological_process unknown | 2445 | 0.995 | 4 | 16 | 0 | -0.038 | 0.052 |
| YLR254C | 35163 | | biological_process unknown | 2446 | 0.995 | 4 | 16 | 0 | -0.017 | 0.051 |
| YMR155W | 30737 | | biological_process unknown | 2447 | 0.995 | 4 | 16 | 0 | 0.003 | 0.032 |
| YGR034W | 34664 | RPL26B | protein biosynthesis | 2448 | 0.995 | 4 | 16 | 0 | 0.000 | 0.043 |
| YLR094C | 32705 | GIS3 | intracellular signaling cascade | 2449 | 0.995 | 4 | 16 | 0 | 0.018 | 0.072 |
| YFL003C | 37272 | MSH4 | meiotic recombination | 2450 | 0.995 | 4 | 16 | 0 | -0.055 | 0.022 |
| YGR173W | 34803 | GIR1 | biological_process unknown | 2451 | 0.995 | 4 | 16 | 0 | -0.003 | 0.043 |
| YLR396C | 35305 | VPS33 | late endosome to vacuole trans | 2452 | 0.995 | 3 | 6 | 0 | | |
| YGR130C | 34760 | | biological_process unknown | 2453 | 0.995 | 4 | 16 | 0 | 0.000 | 0.015 |
| YOR156C | 32412 | NFI1 | chromosome condensation | 2454 | 0.995 | 4 | 16 | 0 | -0.035 | 0.055 |
| YLR290C | 35200 | | biological_process unknown | 2455 | 0.995 | 4 | 16 | 0 | -0.066 | 0.043 |
| YDR010C | 33950 | | | 2456 | 0.996 | 4 | 16 | 0 | -0.034 | 0.062 |
| YGR106C | 36992 | | biological_process unknown | 2457 | 0.996 | 4 | 16 | 0 | -0.005 | 0.050 |
| YOL014W | 31705 | | biological_process unknown | 2458 | 0.996 | 4 | 12 | 0 | -0.007 | 0.018 |
| YGR233C | 35886 | PHO81 | phosphate metabolism | 2459 | 0.996 | 4 | 16 | 0 | 0.111 | 0.077 |
| YLR421C | 35328 | RPN13 | proteolysis and peptidolysis | 2460 | 0.996 | 4 | 15 | 0 | -0.029 | 0.051 |
| YMR083W | 36217 | ADH3 | fermentation | 2461 | 0.996 | 4 | 16 | 0 | 0.074 | 0.023 |
| YJL146W | 31279 | IDS2 | meiosis | 2462 | 0.996 | 4 | 16 | 0 | -0.004 | 0.019 |
| YBR299W | 37250 | MAL32 | maltose catabolism | 2463 | 0.996 | 4 | 12 | 0 | 0.009 | 0.060 |
| YOR126C | 32382 | IAH1 | acetate metabolism | 2464 | 0.996 | 4 | 16 | 0 | -0.030 | 0.013 |
| YPR049C | 35468 | ATG11 | protein-vacuolar targeting* | 2465 | 0.996 | 4 | 16 | 0 | -0.084 | 0.039 |
| YDR291W | 33650 | | biological_process unknown | 2466 | 0.996 | 4 | 16 | 0 | -0.038 | 0.043 |
| YDL085W | 33782 | NDE2 | ethanol fermentation* | 2467 | 0.996 | 4 | 16 | 0 | 0.016 | 0.026 |
| YDR285W | 33644 | ZIP1 | meiosis* | 2468 | 0.996 | 4 | 16 | 0 | 0.020 | 0.030 |
| YMR300C | 30888 | ADE4 | purine base metabolism | 2469 | 0.996 | 4 | 16 | 0 | -0.033 | 0.048 |
| YDR275W | 33634 | BSC2 | biological_process unknown | 2470 | 0.996 | 4 | 16 | 0 | 0.002 | 0.040 |
| YFR054C | 35868 | | | 2471 | 0.996 | 4 | 16 | 0 | 0.001 | 0.022 |
| YNL142W | 37318 | MEP2 | pseudohyphal growth* | 2472 | 0.996 | 4 | 16 | 0 | -0.043 | 0.010 |
| YOL162W | 36667 | | transport | 2473 | 0.996 | 4 | 16 | 0 | -0.036 | 0.046 |
| YDL230W | 33927 | PTP1 | protein amino acid dephosphory | 2474 | 0.996 | 4 | 16 | 0 | 0.014 | 0.067 |
| YNR067C | 36094 | DSE4 | cytokinesis, completion of separ | 2475 | 0.996 | 4 | 16 | 0 | 0.054 | 0.053 |
| YOR346W | 31643 | REV1 | DNA repair* | 2476 | 0.996 | 4 | 16 | 0 | 0.018 | 0.020 |
| YLR053C | 32664 | | biological_process unknown | 2477 | 0.996 | 4 | 16 | 0 | 0.053 | 0.049 |
| YOR175C | 32431 | | biological_process unknown | 2478 | 0.996 | 4 | 16 | 0 | 0.020 | 0.059 |
| YKL126W | 34976 | YPK1 | protein amino acid phosphorylat | 2479 | 0.996 | 4 | 15 | 0 | -0.103 | 0.049 |
| YGR248W | 36998 | SOL4 | biological_process unknown | 2480 | 0.996 | 4 | 16 | 0 | -0.019 | 0.032 |
| YGL157W | 34524 | | biological_process unknown | 2481 | 0.996 | 4 | 16 | 0 | -0.025 | 0.029 |
| YDR028C | 33967 | REG1 | negative regulation of transcript | 2482 | 0.996 | 4 | 12 | 0 | 0.098 | 0.048 |
| YLL056C | 31544 | | biological_process unknown | 2483 | 0.996 | 4 | 16 | 0 | -0.008 | 0.020 |
| YGR247W | 35900 | CPD1 | meiosis* | 2484 | 0.996 | 4 | 16 | 0 | -0.027 | 0.027 |
| YHR076W | 31904 | PTC7 | biological_process unknown | 2485 | 0.996 | 4 | 16 | 0 | 0.036 | 0.063 |
| YDL010W | 33706 | | biological_process unknown | 2486 | 0.996 | 4 | 16 | 0 | -0.015 | 0.047 |
| YNL288W | 31156 | CAF40 | regulation of transcription from I | 2487 | 0.996 | 4 | 16 | 0 | 0.011 | 0.071 |
| YBR050C | 33187 | REG2 | negative regulation of transcript | 2488 | 0.996 | 4 | 16 | 0 | 0.030 | 0.025 |
| YMR120C | 36561 | ADE17 | 'de novo' IMP biosynthesis | 2489 | 0.996 | 4 | 16 | 0 | -0.065 | 0.061 |
| YJR135C | 32613 | MCM22 | chromosome segregation | 2490 | 0.996 | 4 | 16 | 0 | 0.006 | 0.036 |
| YKL140W | 34990 | TGL1 | lipid metabolism | 2491 | 0.996 | 4 | 16 | 0 | 0.017 | 0.062 |
| YGR007W | 34637 | MUQ1 | phosphatidylethanolamine biosy | 2492 | 0.996 | 4 | 16 | 0 | -0.067 | 0.060 |
| YOL056W | 31748 | GPM3 | gluconeogenesis* | 2493 | 0.996 | 4 | 8 | 0 | -0.049 | 0.080 |
| YGR224W | 35877 | AZR1 | transport | 2494 | 0.996 | 4 | 16 | 0 | -0.054 | 0.025 |
| YLR443W | 36047 | ECM7 | cell wall organization and bioge | 2495 | 0.996 | 4 | 16 | 0 | -0.051 | 0.037 |

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|---|---|---|---|---|---|---|---|---|---|---|
| YOR124C | 32380 | UBP2 | protein deubiquitination | 2496 | 0.996 | 4 | 16 | 0 | -0.059 | 0.030 |
| YER083C | 30223 | RMD7 | cell wall organization and bioge | 2497 | 0.996 | 4 | 16 | 0 | 0.151 | 0.056 |
| YNL195C | 32017 | | biological_process unknown | 2498 | 0.996 | 4 | 15 | 0 | -0.012 | 0.046 |
| YKR067W | 35983 | GPT2 | phospholipid biosynthesis | 2499 | 0.996 | 4 | 16 | 0 | -0.052 | 0.032 |
| YCR011C | 33491 | ADP1 | transport | 2500 | 0.996 | 4 | 16 | 0 | -0.055 | 0.036 |
| YOL129W | 36279 | VPS68 | protein-vacuolar targeting | 2501 | 0.996 | 4 | 16 | 0 | -0.029 | 0.060 |
| YKL030W | 36943 | | | 2502 | 0.996 | 4 | 16 | 0 | 0.057 | 0.026 |
| YOR288C | 32544 | MPD1 | protein folding | 2503 | 0.996 | 4 | 16 | 0 | -0.010 | 0.022 |
| YML120C | 36521 | NDI1 | mitochondrial electron transport | 2504 | 0.996 | 4 | 16 | 0 | 0.018 | 0.073 |
| YDR256C | 33615 | CTA1 | oxygen and reactive oxygen spe | 2505 | 0.996 | 4 | 16 | 0 | 0.006 | 0.053 |
| YBR215W | 33355 | HPC2 | G1/S-specific transcription in mi | 2506 | 0.996 | 4 | 16 | 0 | -0.012 | 0.033 |
| YLR085C | 32696 | ARP6 | protein-vacuolar targeting | 2507 | 0.996 | 4 | 15 | 0 | -0.115 | 0.109 |
| YIR025W | 35960 | MND2 | meiotic recombination* | 2508 | 0.996 | 4 | 16 | 0 | -0.080 | 0.052 |
| YLR177W | 34126 | | biological_process unknown | 2509 | 0.997 | 4 | 16 | 0 | 0.055 | 0.154 |
| YMR044W | 30620 | IOC4 | chromatin modeling | 2510 | 0.997 | 4 | 8 | 0 | 0.008 | 0.038 |
| YPR017C | 35436 | DSS4 | secretory pathway | 2511 | 0.997 | 4 | 16 | 0 | -0.051 | 0.032 |
| YIL085C | 31476 | KTR7 | cell wall organization and bioge | 2512 | 0.997 | 4 | 16 | 0 | -0.037 | 0.031 |
| YKL086W | 34935 | | biological_process unknown | 2513 | 0.997 | 4 | 16 | 0 | -0.012 | 0.086 |
| YGR018C | 34648 | | | 2514 | 0.997 | 4 | 16 | 0 | -0.012 | 0.040 |
| YOL137W | 36287 | BSC6 | biological_process unknown | 2515 | 0.997 | 4 | 16 | 0 | 0.009 | 0.028 |
| YDL179W | 33877 | PCL9 | cell cycle | 2516 | 0.997 | 4 | 16 | 0 | 0.066 | 0.070 |
| YDL157C | 33855 | | biological_process unknown | 2517 | 0.997 | 4 | 12 | 0 | 0.001 | 0.027 |
| YMR133W | 36574 | REC114 | meiotic recombination* | 2518 | 0.997 | 4 | 16 | 0 | 0.009 | 0.066 |
| YBR158W | 33297 | AMN1 | negative regulation of exit from | 2519 | 0.997 | 4 | 16 | 0 | 0.001 | 0.060 |
| YKL133C | 34983 | | biological_process unknown | 2520 | 0.997 | 4 | 12 | 0 | 0.010 | 0.044 |
| YHR182W | 32876 | | biological_process unknown | 2521 | 0.997 | 4 | 8 | 0 | -0.037 | 0.030 |
| YBR210W | 33350 | ERV15 | axial budding | 2522 | 0.997 | 4 | 16 | 0 | -0.040 | 0.034 |
| YLR413W | 35321 | | biological_process unknown | 2523 | 0.997 | 4 | 16 | 0 | -0.017 | 0.061 |
| YJR037W | 36835 | | | 2524 | 0.997 | 4 | 16 | 0 | 0.000 | 0.031 |
| YPL130W | 32122 | SPO19 | meiosis | 2525 | 0.997 | 4 | 16 | 0 | 0.020 | 0.034 |
| YFR041C | 35855 | | biological_process unknown | 2526 | 0.997 | 4 | 16 | 0 | -0.064 | 0.034 |
| YML011C | 30563 | | biological_process unknown | 2527 | 0.997 | 4 | 8 | 0 | 0.036 | 0.046 |
| YDR286C | 33645 | | biological_process unknown | 2528 | 0.997 | 4 | 16 | 0 | 0.012 | 0.059 |
| YHR041C | 36611 | SRB2 | transcription from Pol II promote | 2529 | 0.997 | 4 | 16 | 0 | -0.004 | 0.062 |
| YER135C | 36134 | | | 2530 | 0.997 | 4 | 16 | 0 | -0.058 | 0.009 |
| YDL099W | 33796 | | biological_process unknown | 2531 | 0.997 | 4 | 12 | 0 | 0.067 | 0.051 |
| YGR259C | 35911 | | | 2532 | 0.997 | 4 | 15 | 0 | 0.021 | 0.068 |
| YOR189W | 32445 | IES4 | biological_process unknown | 2533 | 0.997 | 4 | 15 | 0 | 0.003 | 0.042 |
| YER067W | 30205 | | biological_process unknown | 2534 | 0.997 | 4 | 16 | 0 | 0.026 | 0.028 |
| YPL223C | 31069 | GRE1 | response to stress* | 2535 | 0.997 | 4 | 12 | 0 | -0.008 | 0.022 |
| YNL079C | 37224 | TPM1 | establishment of cell polarity (se | 2536 | 0.997 | 4 | 16 | 0 | 0.025 | 0.056 |
| YHR124W | 31952 | NDT80 | meiosis* | 2537 | 0.997 | 4 | 16 | 0 | 0.066 | 0.025 |
| YJL028W | 36796 | | | 2538 | 0.997 | 4 | 8 | 0 | 0.015 | 0.039 |
| YEL031W | 30272 | SPF1 | protein amino acid glycosylatior | 2539 | 0.997 | 4 | 16 | 0 | 0.083 | 0.067 |
| YHL012W | 30951 | | biological_process unknown | 2540 | 0.997 | 4 | 16 | 0 | 0.013 | 0.063 |
| YGL226C- | 34592 | OST5 | N-linked glycosylation | 2541 | 0.997 | 4 | 15 | 0 | 0.051 | 0.122 |
| YPL033C | 32795 | | meiosis* | 2542 | 0.997 | 4 | 16 | 0 | 0.074 | 0.050 |
| YBR074W | 33211 | | biological_process unknown | 2543 | 0.997 | 4 | 16 | 0 | 0.007 | 0.011 |
| YHR015W | 30978 | MIP6 | mRNA-nucleus export | 2544 | 0.997 | 4 | 16 | 0 | -0.002 | 0.080 |
| YPL135W | 32117 | ISU1 | iron ion homeostasis* | 2545 | 0.997 | 4 | 16 | 0 | -0.021 | 0.045 |
| YNL304W | 31140 | YPT11 | mitochondrion inheritance | 2546 | 0.997 | 4 | 16 | 0 | 0.053 | 0.039 |
| YMR234W | 30820 | RNH1 | cell wall organization and bioge | 2547 | 0.997 | 4 | 16 | 0 | -0.021 | 0.045 |

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|---|---|---|---|---|---|---|---|---|---|---|
| YDL011C | 33707 | | | 2548 | 0.997 | 4 | 16 | 0 | -0.019 | 0.013 |
| YIL009W | 31401 | FAA3 | lipid metabolism* | 2549 | 0.997 | 4 | 16 | 0 | 0.042 | 0.032 |
| YER186C | 36182 | | biological_process unknown | 2550 | 0.997 | 4 | 16 | 0 | 0.001 | 0.032 |
| YMR271C | 36448 | URA10 | pyrimidine base biosynthesis | 2551 | 0.997 | 4 | 16 | 0 | -0.062 | 0.030 |
| YNL071W | 37218 | LAT1 | pyruvate metabolism | 2552 | 0.997 | 4 | 16 | 0 | -0.013 | 0.040 |
| YBR229C | 33369 | ROT2 | cell wall biosynthesis (sensu Fu | 2553 | 0.997 | 4 | 16 | 0 | 0.026 | 0.065 |
| YKL187C | 35037 | | biological_process unknown | 2554 | 0.997 | 4 | 16 | 0 | -0.031 | 0.020 |
| YDR453C | 34287 | TSA2 | regulation of redox homeostasis | 2555 | 0.997 | 4 | 11 | 0 | 0.029 | 0.013 |
| YNL332W | 31112 | THI12 | thiamin biosynthesis | 2556 | 0.997 | 4 | 16 | 0 | 0.016 | 0.031 |
| YOL012C | 31703 | HTZ1 | regulation of transcription from I | 2557 | 0.997 | 3 | 6 | 0 | | |
| YHR021W | 35947 | ECM12 | cell wall organization and bioge | 2558 | 0.998 | 4 | 16 | 0 | -0.001 | 0.034 |
| YPL219W | 31073 | PCL8 | regulation of glycogen biosynthe | 2559 | 0.998 | 4 | 16 | 0 | 0.000 | 0.007 |
| YNR048W | 35423 | | biological_process unknown | 2560 | 0.998 | 4 | 16 | 0 | 0.018 | 0.022 |
| YIL058W | 37301 | | | 2561 | 0.998 | 4 | 16 | 0 | -0.016 | 0.052 |
| YPR147C | 35562 | | biological_process unknown | 2562 | 0.998 | 4 | 16 | 0 | -0.037 | 0.032 |
| YOR324C | 31621 | FRT1 | biological_process unknown | 2563 | 0.998 | 4 | 16 | 0 | -0.034 | 0.082 |
| YMR056C | 36190 | AAC1 | ATP/ADP exchange | 2564 | 0.998 | 4 | 16 | 0 | -0.019 | 0.083 |
| YLR307W | 35215 | CDA1 | spore wall assembly (sensu Sac | 2565 | 0.998 | 4 | 16 | 0 | -0.045 | 0.073 |
| YOR205C | 32461 | | biological_process unknown | 2566 | 0.998 | 3 | 12 | 0 | | |
| YNR074C | 36233 | | response to singlet oxygen | 2567 | 0.998 | 4 | 16 | 0 | -0.044 | 0.023 |
| YIR016W | 32352 | | biological_process unknown | 2568 | 0.998 | 4 | 16 | 0 | 0.006 | 0.011 |
| YMR285C | 30871 | NGL2 | rRNA processing | 2569 | 0.998 | 4 | 16 | 0 | -0.075 | 0.024 |
| YKL097C | 34946 | | | 2570 | 0.998 | 4 | 16 | 0 | -0.019 | 0.028 |
| YGL248W | 34615 | PDE1 | cAMP-mediated signaling | 2571 | 0.998 | 4 | 16 | 0 | -0.030 | 0.028 |
| YDL189W | 33887 | RBS1 | biological_process unknown | 2572 | 0.998 | 4 | 15 | 0 | -0.029 | 0.014 |
| YMR175W | 36073 | SIP18 | response to osmotic stress* | 2573 | 0.998 | 4 | 16 | 0 | -0.023 | 0.011 |
| YNL303W | 31141 | | | 2574 | 0.998 | 4 | 16 | 0 | -0.001 | 0.017 |
| YGR023W | 34653 | MTL1 | cell wall organization and bioge | 2575 | 0.998 | 4 | 8 | 0 | -0.054 | 0.033 |
| YMR104C | 37119 | YPK2 | protein amino acid phosphorylat | 2576 | 0.998 | 4 | 16 | 0 | 0.000 | 0.030 |
| YOL057W | 31749 | | biological_process unknown | 2577 | 0.998 | 4 | 16 | 0 | -0.040 | 0.050 |
| YBR101C | 33240 | FES1 | protein biosynthesis | 2578 | 0.998 | 4 | 16 | 0 | 0.129 | 0.087 |
| YEL043W | 30284 | | biological_process unknown | 2579 | 0.998 | 4 | 16 | 0 | 0.010 | 0.049 |
| YOR108W | 32364 | LEU9 | leucine biosynthesis | 2580 | 0.998 | 4 | 16 | 0 | 0.036 | 0.054 |
| YIL056W | 31449 | | biological_process unknown | 2581 | 0.998 | 4 | 16 | 0 | 0.007 | 0.017 |
| YLR169W | 34118 | | | 2582 | 0.998 | 4 | 16 | 0 | 0.020 | 0.055 |
| YBR165W | 33305 | UBS1 | protein-nucleus export* | 2583 | 0.998 | 4 | 16 | 0 | 0.006 | 0.024 |
| YLR335W | 35244 | NUP2 | mRNA-nucleus export* | 2584 | 0.998 | 4 | 16 | 0 | 0.029 | 0.015 |
| YLR380W | 35289 | CSR1 | cell wall organization and bioge | 2585 | 0.998 | 4 | 16 | 0 | 0.012 | 0.010 |
| YBL065W | 33091 | | | 2586 | 0.998 | 4 | 12 | 0 | 0.028 | 0.038 |
| YLR188W | 34137 | MDL1 | oligopeptide transport | 2587 | 0.998 | 4 | 15 | 0 | 0.023 | 0.008 |
| YDR209C | 33568 | | | 2588 | 0.998 | 4 | 16 | 0 | -0.008 | 0.052 |
| YER062C | 30199 | HOR2 | response to osmotic stress* | 2589 | 0.998 | 4 | 16 | 0 | 0.037 | 0.053 |
| YHR080C | 31908 | | biological_process unknown | 2590 | 0.998 | 4 | 16 | 0 | 0.067 | 0.055 |
| YIR020C | 35954 | | | 2591 | 0.998 | 4 | 16 | 0 | -0.071 | 0.029 |
| YBR280C | 37172 | | biological_process unknown | 2592 | 0.998 | 4 | 8 | 0 | 0.086 | 0.017 |
| YKL026C | 34875 | GPX1 | response to oxidative stress | 2593 | 0.998 | 4 | 16 | 0 | -0.028 | 0.063 |
| YJL142C | 31283 | | | 2594 | 0.998 | 4 | 16 | 0 | -0.003 | 0.029 |
| YKL146W | 34996 | AVT3 | neutral amino acid transport | 2595 | 0.998 | 4 | 16 | 0 | -0.114 | 0.042 |
| YBR065C | 33202 | ECM2 | cell wall organization and bioge | 2596 | 0.998 | 4 | 16 | 0 | 0.019 | 0.035 |
| YGL194C | 34561 | HOS2 | regulation of transcription, DNA | 2597 | 0.998 | 4 | 16 | 0 | -0.030 | 0.057 |
| YMR088C | 36223 | | biological_process unknown | 2598 | 0.998 | 4 | 16 | 0 | -0.031 | 0.040 |
| YKL050C | 34899 | | biological_process unknown | 2599 | 0.999 | 4 | 16 | 0 | 0.005 | 0.031 |

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|---|---|---|---|---|---|---|---|---|---|---|
| YIR042C | 35975 | | biological_process unknown | 2600 | 0.999 | 4 | 16 | 0 | 0.014 | 0.052 |
| YIL111W | 32270 | COX5B | anaerobic respiration | 2601 | 0.999 | 4 | 16 | 0 | 0.042 | 0.050 |
| YDR319C | 33678 | | biological_process unknown | 2602 | 0.999 | 4 | 16 | 0 | -0.024 | 0.062 |
| YGL161C | 34528 | YIP5 | biological_process unknown | 2603 | 0.999 | 4 | 16 | 0 | -0.026 | 0.022 |
| YMR209C | 36447 | | biological_process unknown | 2604 | 0.999 | 4 | 16 | 0 | 0.041 | 0.017 |
| YHR105W | 31933 | YPT35 | biological_process unknown | 2605 | 0.999 | 4 | 16 | 0 | 0.044 | 0.065 |
| YPL263C | 31029 | KEL3 | biological_process unknown | 2606 | 0.999 | 4 | 16 | 0 | -0.009 | 0.045 |
| YGR123C | 34753 | PPT1 | protein amino acid phosphorylat | 2607 | 0.999 | 4 | 16 | 0 | -0.023 | 0.034 |
| YOR381W | 31678 | FRE3 | iron ion homeostasis* | 2608 | 0.999 | 4 | 16 | 0 | -0.049 | 0.026 |
| YKL020C | 34869 | SPT23 | positive regulation of transcripti | 2609 | 0.999 | 4 | 16 | 0 | -0.011 | 0.024 |
| YNR055C | 37124 | HOL1 | transport | 2610 | 0.999 | 4 | 16 | 0 | -0.012 | 0.012 |
| YFR014C | 35693 | CMK1 | protein amino acid phosphorylat | 2611 | 0.999 | 4 | 16 | 0 | -0.003 | 0.025 |
| YPL048W | 32780 | CAM1 | regulation of translational elong | 2612 | 0.999 | 4 | 12 | 0 | 0.003 | 0.031 |
| YLR176C | 34125 | RFX1 | negative regulation of transcript | 2613 | 0.999 | 4 | 16 | 0 | -0.016 | 0.035 |
| YBL106C | 33134 | SRO77 | Golgi to plasma membrane tran | 2614 | 0.999 | 4 | 11 | 0 | -0.091 | 0.038 |
| YGR122C | 37283 | | | 2615 | 0.999 | 4 | 16 | 0 | -0.052 | 0.041 |
| YER175C | 36171 | TMT1 | biological_process unknown | 2616 | 0.999 | 4 | 16 | 0 | 0.029 | 0.047 |
| YLR326W | 35235 | | biological_process unknown | 2617 | 0.999 | 4 | 16 | 0 | -0.038 | 0.048 |
| YJR062C | 36860 | NTA1 | protein catabolism* | 2618 | 0.999 | 4 | 16 | 0 | -0.032 | 0.018 |
| YGL042C | 34410 | | | 2619 | 0.999 | 4 | 16 | 0 | -0.028 | 0.031 |
| YGL242C | 34609 | | biological_process unknown | 2620 | 0.999 | 4 | 16 | 0 | -0.025 | 0.058 |
| YLR092W | 32703 | SUL2 | sulfate transport | 2621 | 0.999 | 4 | 16 | 0 | -0.003 | 0.071 |
| YBR217W | 33357 | ATG12 | protein-vacuolar targeting* | 2622 | 0.999 | 4 | 16 | 0 | -0.009 | 0.050 |
| YOR248W | 32504 | | | 2623 | 0.999 | 4 | 16 | 0 | -0.012 | 0.052 |
| YLL017W | 31505 | SDC25 | RAS protein signal transduction | 2624 | 0.999 | 4 | 16 | 0 | -0.009 | 0.013 |
| YGR040W | 36981 | KSS1 | protein amino acid phosphorylat | 2625 | 0.999 | 4 | 12 | 0 | -0.025 | 0.068 |
| YNL104C | 37237 | LEU4 | leucine biosynthesis | 2626 | 0.999 | 4 | 16 | 0 | 0.031 | 0.010 |
| YMR302C | 30890 | PRP12 | rRNA processing* | 2627 | 0.999 | 4 | 8 | 0 | -0.007 | 0.025 |
| YJL099W | 31324 | CHS6 | Golgi to plasma membrane tran | 2628 | 0.999 | 4 | 16 | 0 | 0.061 | 0.018 |
| YJL196C | 37021 | ELO1 | fatty acid elongation, unsaturate | 2629 | 0.999 | 4 | 16 | 0 | -0.062 | 0.092 |
| YPR117W | 35533 | | biological_process unknown | 2630 | 0.999 | 4 | 16 | 0 | -0.028 | 0.044 |
| YBR151W | 33290 | APD1 | biological_process unknown | 2631 | 0.999 | 4 | 16 | 0 | -0.023 | 0.044 |
| YDR221W | 33580 | | biological_process unknown | 2632 | 0.999 | 4 | 12 | 0 | 0.053 | 0.104 |
| YER091C | 36396 | MET6 | methionine biosynthesis | 2633 | 0.999 | 4 | 15 | 0 | 0.036 | 0.018 |
| YDL178W | 33876 | DLD2 | biological_process unknown | 2634 | 0.999 | 4 | 16 | 0 | -0.021 | 0.044 |
| YER103W | 36101 | SSA4 | response to stress* | 2635 | 0.999 | 4 | 16 | 0 | 0.031 | 0.016 |
| YCR004C | 33484 | YCP4 | biological_process unknown | 2636 | 0.999 | 4 | 16 | 0 | -0.041 | 0.038 |
| YMR175w | 30760 | SIP18 | response to osmotic stress* | 2637 | 0.999 | 4 | 16 | 0 | -0.002 | 0.034 |
| YPR171W | 35586 | BSP1 | actin cytoskeleton organization | 2638 | 0.999 | 4 | 16 | 0 | -0.065 | 0.106 |
| YFR024C- | 35704 | LSB3 | biological_process unknown | 2639 | 0.999 | 4 | 16 | 0 | -0.030 | 0.044 |
| YFR026C | 35706 | | biological_process unknown | 2640 | 0.999 | 4 | 16 | 0 | -0.024 | 0.040 |
| YNL285W | 31159 | | | 2641 | 0.999 | 4 | 16 | 0 | 0.063 | 0.048 |
| YJR035W | 36833 | RAD26 | nucleotide-excision repair* | 2642 | 0.999 | 4 | 16 | 0 | -0.028 | 0.048 |
| YBR118W | 33257 | TEF2 | translational elongation | 2643 | 0.999 | 4 | 16 | 0 | -0.010 | 0.030 |
| YLR058C | 32669 | SHM2 | one-carbon compound metaboli | 2644 | 0.999 | 4 | 16 | 0 | 0.075 | 0.049 |
| YGL013C | 34381 | PDR1 | regulation of transcription from I | 2645 | 1.000 | 4 | 16 | 0 | -0.052 | 0.043 |
| YPR079W | 35498 | MRL1 | vacuolar transport | 2646 | 1.000 | 4 | 16 | 0 | -0.028 | 0.030 |
| YML083C | 30487 | | biological_process unknown | 2647 | 1.000 | 4 | 8 | 0 | 0.033 | 0.017 |
| YGR271W | 37290 | SLH1 | regulation of translation | 2648 | 1.000 | 4 | 16 | 0 | -0.025 | 0.031 |
| YOL160W | 36666 | | | 2649 | 1.000 | 4 | 16 | 0 | -0.016 | 0.030 |
| YKR088C | 36004 | TVP38 | biological_process unknown | 2650 | 1.000 | 4 | 16 | 0 | -0.011 | 0.031 |
| YPR012W | 35431 | | | 2651 | 1.000 | 4 | 16 | 0 | 0.029 | 0.035 |

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|---|---|---|---|---|---|---|---|---|---|---|
| YER059W | 30195 | PCL6 | regulation of glycogen biosynthe | 2652 | 1.000 | 4 | 16 | 0 | 0.069 | 0.017 |
| YBR052C | 33189 | | biological_process unknown | 2653 | 1.000 | 4 | 16 | 0 | 0.029 | 0.056 |
| YGL208W | 34574 | SIP2 | protein amino acid phosphoryla | 2654 | 1.000 | 4 | 11 | 0 | 0.010 | 0.038 |
| YAL045C | 30360 | | | 2655 | 1.000 | 4 | 8 | 0 | 0.013 | 0.011 |
| YKR055W | 35126 | RHO4 | establishment of cell polarity (se | 2656 | 1.000 | 4 | 16 | 0 | 0.000 | 0.022 |
| YGR197C | 34827 | SNG1 | response to drug | 2657 | 1.000 | 4 | 12 | 0 | -0.048 | 0.043 |
| YER128W | 36127 | | biological_process unknown | 2658 | 1.000 | 4 | 16 | 0 | -0.002 | 0.058 |
| YER032W | 30164 | FIR1 | mRNA polyadenylation | 2659 | 1.000 | 4 | 16 | 0 | 0.017 | 0.036 |
| YPR134W | 35549 | MSS18 | Group I intron splicing | 2660 | 1.000 | 3 | 6 | 0 | | |
| YGR109C | 34739 | CLB6 | G1/S transition of mitotic cell cy | 2661 | 1.000 | 4 | 16 | 0 | -0.004 | 0.068 |
| YLR065C | 32676 | | biological_process unknown | 2662 | 1.000 | 4 | 8 | 0 | 0.094 | 0.047 |
| YDL204W | 33902 | RTN2 | biological_process unknown | 2663 | 1.000 | 4 | 16 | 0 | -0.001 | 0.054 |
| YOR172W | 32428 | YRM1 | transcription | 2664 | 1.000 | 4 | 16 | 0 | -0.020 | 0.046 |
| YPL015C | 32813 | HST2 | chromatin silencing at telomere | 2665 | 1.000 | 4 | 16 | 0 | 0.024 | 0.047 |
| YER042W | 30175 | MXR1 | response to oxidative stress | 2666 | 1.000 | 4 | 16 | 0 | 0.000 | 0.037 |
| YIL086C | 31477 | | | 2667 | 1.000 | 4 | 16 | 0 | 0.077 | 0.013 |
| YBR239C | 33379 | | biological_process unknown | 2668 | 1.000 | 4 | 16 | 0 | 0.005 | 0.062 |
| YPL220W | 31072 | RPL1A | protein biosynthesis | 2669 | 1.000 | 4 | 16 | 0 | 0.013 | 0.019 |
| YJR097W | 36909 | | biological_process unknown | 2670 | 1.000 | 4 | 16 | 0 | 0.029 | 0.035 |
| YER079W | 30219 | | biological_process unknown | 2671 | 1.000 | 4 | 16 | 0 | 0.051 | 0.018 |
| YLR034C | 36432 | SMF3 | intracellular iron ion storage | 2672 | 1.000 | 4 | 15 | 0 | 0.062 | 0.011 |
| YNL326C | 31118 | | biological_process unknown | 2673 | 1.000 | 4 | 15 | 0 | -0.016 | 0.036 |
| YKL199C | 35049 | YKT9 | biological_process unknown | 2674 | 1.000 | 4 | 11 | 0 | -0.017 | 0.021 |
| YIL072W | 31465 | HOP1 | meiosis* | 2675 | 1.000 | 4 | 16 | 0 | -0.032 | 0.030 |
| YLR024C | 31579 | UBR2 | protein monoubiquitination* | 2676 | 1.000 | 4 | 16 | 0 | 0.028 | 0.009 |
| YNL253W | 31191 | TEX1 | mRNA-nucleus export | 2677 | 1.000 | 4 | 16 | 0 | -0.011 | 0.034 |
| YNL239W | 31973 | LAP3 | response to antibiotic | 2678 | 1.000 | 4 | 16 | 0 | 0.035 | 0.050 |
| YHL045W | 30918 | | | 2679 | 1.000 | 4 | 16 | 0 | 0.023 | 0.014 |
| YJL020C | 36788 | BBC1 | actin cytoskeleton organization | 2680 | 1.000 | 4 | 16 | 0 | 0.036 | 0.010 |
| YAL043C- | 30364 | | | 2681 | 1.000 | 4 | 8 | 0 | 0.076 | 0.042 |
| YNL023C | 35349 | FAP1 | biological_process unknown | 2682 | 1.000 | 4 | 11 | 0 | -0.002 | 0.045 |
| YJL083W | 31340 | | biological_process unknown | 2683 | 1.000 | 4 | 16 | 0 | 0.027 | 0.025 |
| YPL139C | 32113 | UME1 | regulation of meiosis | 2684 | 1.001 | 4 | 16 | 0 | 0.023 | 0.032 |
| YBR148W | 33287 | YSW1 | biological_process unknown | 2685 | 1.001 | 4 | 16 | 0 | 0.014 | 0.026 |
| YOR154W | 32410 | | biological_process unknown | 2686 | 1.001 | 4 | 16 | 0 | -0.029 | 0.041 |
| YJL082W | 31341 | IML2 | biological_process unknown | 2687 | 1.001 | 4 | 16 | 0 | 0.031 | 0.035 |
| YBR244W | 33384 | GPX2 | response to oxidative stress | 2688 | 1.001 | 4 | 16 | 0 | 0.052 | 0.018 |
| YOR114W | 32370 | | biological_process unknown | 2689 | 1.001 | 4 | 16 | 0 | 0.008 | 0.032 |
| YGL224C | 34590 | SDT1 | pyrimidine base metabolism | 2690 | 1.001 | 4 | 8 | 0 | 0.007 | 0.029 |
| YFL053W | 35674 | DAK2 | response to stress* | 2691 | 1.001 | 4 | 16 | 0 | 0.013 | 0.022 |
| YIL087C | 31478 | | biological_process unknown | 2692 | 1.001 | 4 | 16 | 0 | -0.001 | 0.029 |
| YBR018C | 33155 | GAL7 | galactose metabolism | 2693 | 1.001 | 4 | 16 | 0 | -0.034 | 0.021 |
| YOR005C | 31781 | DNL4 | double-strand break repair via n | 2694 | 1.001 | 4 | 16 | 0 | 0.040 | 0.031 |
| YOR367W | 31664 | SCP1 | actin filament organization | 2695 | 1.001 | 4 | 16 | 0 | -0.006 | 0.016 |
| YOR296W | 31592 | | biological_process unknown | 2696 | 1.001 | 4 | 16 | 0 | -0.040 | 0.052 |
| YDR233C | 33592 | RTN1 | biological_process unknown | 2697 | 1.001 | 4 | 16 | 0 | -0.018 | 0.024 |
| YIR003W | 32339 | | biological_process unknown | 2698 | 1.001 | 4 | 16 | 0 | -0.055 | 0.026 |
| YDR109C | 34043 | | biological_process unknown | 2699 | 1.001 | 4 | 16 | 0 | -0.041 | 0.066 |
| YFR057W | 35871 | | biological_process unknown | 2700 | 1.001 | 4 | 11 | 0 | -0.093 | 0.021 |
| YDR229W | 33588 | IVY1 | secretory pathway | 2701 | 1.001 | 4 | 16 | 0 | 0.022 | 0.033 |
| YOR226C | 32482 | ISU2 | iron ion homeostasis* | 2702 | 1.001 | 4 | 16 | 0 | 0.031 | 0.114 |
| YHL029C | 30934 | | biological_process unknown | 2703 | 1.001 | 4 | 16 | 0 | 0.046 | 0.059 |

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|---|---|---|---|---|---|---|---|---|---|---|
| YGR290W | 35942 | | | 2704 | 1.001 | 4 | 8 | 0 | -0.086 | 0.061 |
| YLR137W | 34094 | | biological_process unknown | 2705 | 1.001 | 4 | 16 | 0 | 0.007 | 0.037 |
| YBR084W | 33222 | MIS1 | nucleobase, nucleoside, nucleo | 2706 | 1.001 | 4 | 16 | 0 | 0.012 | 0.042 |
| YOR118W | 32374 | | biological_process unknown | 2707 | 1.001 | 4 | 16 | 0 | -0.042 | 0.032 |
| YBR301W | 37177 | DAN3 | biological_process unknown | 2708 | 1.001 | 4 | 16 | 0 | -0.019 | 0.066 |
| YHR004C | 36601 | NEM1 | sporulation (sensu Saccharomy | 2709 | 1.001 | 4 | 16 | 0 | 0.082 | 0.034 |
| YOL163W | 36668 | | transport | 2710 | 1.001 | 4 | 16 | 0 | -0.008 | 0.038 |
| YOR374W | 31671 | ALD4 | ethanol metabolism | 2711 | 1.001 | 4 | 16 | 0 | 0.057 | 0.017 |
| YOL029C | 31720 | | biological_process unknown | 2712 | 1.001 | 4 | 16 | 0 | 0.012 | 0.038 |
| YML058C | 30514 | | | 2713 | 1.001 | 4 | 8 | 0 | 0.049 | 0.025 |
| YPR109W | 35525 | | biological_process unknown | 2714 | 1.001 | 4 | 16 | 0 | -0.002 | 0.035 |
| YIL173W | 32332 | VTH1 | Golgi to vacuole transport | 2715 | 1.001 | 4 | 16 | 0 | -0.025 | 0.011 |
| YKR030W | 35101 | GMH1 | biological_process unknown | 2716 | 1.001 | 4 | 16 | 0 | -0.070 | 0.031 |
| YDR222W | 33581 | | biological_process unknown | 2717 | 1.001 | 4 | 16 | 0 | 0.011 | 0.018 |
| YMR016C | 30591 | SOK2 | pseudohyphal growth | 2718 | 1.001 | 4 | 8 | 0 | 0.158 | 0.035 |
| YNL190W | 32022 | | response to dessication | 2719 | 1.001 | 4 | 16 | 0 | 0.017 | 0.014 |
| YDR455C | 34289 | | | 2720 | 1.001 | 4 | 16 | 0 | -0.055 | 0.076 |
| YKR100C | 36016 | | biological_process unknown | 2721 | 1.001 | 4 | 16 | 0 | 0.017 | 0.022 |
| YBR218C | 33358 | PYC2 | gluconeogenesis* | 2722 | 1.001 | 4 | 16 | 0 | -0.024 | 0.054 |
| YKR090W | 36006 | PXL1 | biological_process unknown | 2723 | 1.001 | 4 | 16 | 0 | -0.004 | 0.120 |
| YGL263W | 34630 | COS12 | biological_process unknown | 2724 | 1.001 | 4 | 16 | 0 | 0.009 | 0.054 |
| YDR486C | 34320 | VPS60 | biological_process unknown | 2725 | 1.001 | 4 | 11 | 0 | 0.038 | 0.034 |
| YBR230C | 33370 | | biological_process unknown | 2726 | 1.001 | 4 | 16 | 0 | 0.005 | 0.044 |
| YKL031W | 34880 | | | 2727 | 1.001 | 4 | 16 | 0 | -0.029 | 0.052 |
| YFR013W | 37207 | IOC3 | chromatin modeling | 2728 | 1.001 | 4 | 15 | 0 | 0.007 | 0.057 |
| YOL118C | 36268 | | | 2729 | 1.002 | 4 | 12 | 0 | -0.011 | 0.054 |
| YPR173C | 35588 | VPS4 | late endosome to vacuole trans | 2730 | 1.002 | 4 | 12 | 0 | 0.026 | 0.026 |
| YGR203W | 34833 | | biological_process unknown | 2731 | 1.002 | 4 | 11 | 0 | 0.009 | 0.034 |
| YLL032C | 31520 | | biological_process unknown | 2732 | 1.002 | 4 | 16 | 0 | -0.021 | 0.026 |
| YLR382C | 36715 | NAM2 | Group I intron splicing* | 2733 | 1.002 | 3 | 6 | 0 | | |
| YMR316C | 36457 | | | 2734 | 1.002 | 4 | 16 | 0 | -0.035 | 0.043 |
| YPR184W | 35599 | GDB1 | glycogen catabolism | 2735 | 1.002 | 4 | 16 | 0 | -0.049 | 0.043 |
| YMR055C | 36189 | BUB2 | mitotic spindle checkpoint | 2736 | 1.002 | 4 | 16 | 0 | -0.026 | 0.053 |
| YJL013C | 36781 | MAD3 | mitotic spindle checkpoint | 2737 | 1.002 | 4 | 16 | 0 | 0.024 | 0.012 |
| YGL151W | 34518 | NUT1 | regulation of transcription from I | 2738 | 1.002 | 4 | 16 | 0 | 0.010 | 0.027 |
| YDR223W | 33582 | | biological_process unknown | 2739 | 1.002 | 4 | 16 | 0 | -0.024 | 0.058 |
| YOR298C | 36753 | MBF1 | positive regulation of transcripti | 2740 | 1.002 | 4 | 16 | 0 | -0.010 | 0.022 |
| YMR178W | 30763 | | biological_process unknown | 2741 | 1.002 | 4 | 16 | 0 | 0.031 | 0.064 |
| YDR006C | 33946 | SOK1 | cAMP-mediated signaling | 2742 | 1.002 | 4 | 8 | 0 | -0.039 | 0.053 |
| YBR016W | 33153 | | response to dessication | 2743 | 1.002 | 4 | 16 | 0 | -0.003 | 0.034 |
| YJR031C | 36829 | GEA1 | ER to Golgi transport* | 2744 | 1.002 | 4 | 16 | 0 | -0.025 | 0.023 |
| YDL086W | 33783 | | biological_process unknown | 2745 | 1.002 | 4 | 16 | 0 | 0.059 | 0.049 |
| YKR040C | 37051 | | | 2746 | 1.002 | 4 | 16 | 0 | -0.036 | 0.040 |
| YGR131W | 34761 | | biological_process unknown | 2747 | 1.002 | 4 | 16 | 0 | -0.013 | 0.013 |
| YNL014W | 37370 | HEF3 | translational elongation | 2748 | 1.002 | 4 | 11 | 0 | 0.029 | 0.001 |
| YMR162C | 30745 | DNF3 | intracellular protein transport | 2749 | 1.002 | 4 | 11 | 0 | -0.014 | 0.012 |
| YLR425W | 36028 | TUS1 | cell wall organization and bioge | 2750 | 1.002 | 3 | 6 | 0 | | |
| YLR219W | 34168 | MSC3 | meiotic recombination | 2751 | 1.002 | 4 | 15 | 0 | -0.011 | 0.020 |
| YJR021C | 36819 | REC107 | meiotic recombination | 2752 | 1.002 | 4 | 16 | 0 | -0.063 | 0.055 |
| YLR312C | 35220 | | biological_process unknown | 2753 | 1.002 | 4 | 16 | 0 | -0.068 | 0.033 |
| YGR168C | 34798 | | biological_process unknown | 2754 | 1.002 | 4 | 16 | 0 | -0.039 | 0.029 |
| YJL187C | 31238 | SWE1 | G2/M transition of mitotic cell cy | 2755 | 1.002 | 4 | 16 | 0 | 0.020 | 0.083 |

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|---|---|---|---|---|---|---|---|---|---|---|
| YOL003C | 31694 | | biological_process unknown | 2756 | 1.002 | 4 | 16 | 0 | 0.068 | 0.034 |
| YML041C | 36727 | VPS71 | protein-vacuolar targeting | 2757 | 1.002 | 4 | 12 | 0 | -0.069 | 0.055 |
| YOR311C | 31608 | HSD1 | biological_process unknown | 2758 | 1.002 | 4 | 12 | 0 | 0.003 | 0.038 |
| YMR069W | 36202 | NAT4 | biological_process unknown | 2759 | 1.002 | 4 | 16 | 0 | -0.035 | 0.018 |
| YNL319W | 31125 | | | 2760 | 1.002 | 4 | 16 | 0 | -0.023 | 0.033 |
| YBL057C | 33083 | PTH2 | protein biosynthesis | 2761 | 1.002 | 4 | 16 | 0 | 0.007 | 0.019 |
| YJL149W | 31276 | | biological_process unknown | 2762 | 1.002 | 4 | 16 | 0 | -0.094 | 0.048 |
| YDR134C | 34068 | | biological_process unknown | 2763 | 1.002 | 4 | 16 | 0 | -0.006 | 0.044 |
| YDL211C | 33909 | | biological_process unknown | 2764 | 1.002 | 4 | 16 | 0 | -0.050 | 0.059 |
| YLR178C | 34127 | TFS1 | regulation of proteolysis and pe | 2765 | 1.002 | 4 | 16 | 0 | -0.007 | 0.025 |
| YAR035W | 30425 | YAT1 | alcohol metabolism* | 2766 | 1.002 | 4 | 8 | 0 | 0.020 | 0.001 |
| YLR392C | 35301 | | biological_process unknown | 2767 | 1.002 | 4 | 16 | 0 | 0.031 | 0.018 |
| YMR199W | 30785 | CLN1 | regulation of CDK activity | 2768 | 1.002 | 4 | 16 | 0 | -0.005 | 0.025 |
| YOL063C | 31755 | MOR1 | biological_process unknown | 2769 | 1.002 | 4 | 16 | 0 | 0.002 | 0.035 |
| YER096W | 36402 | SHC1 | sporulation (sensu Fungi)* | 2770 | 1.002 | 4 | 16 | 0 | 0.014 | 0.060 |
| YMR259C | 30845 | | biological_process unknown | 2771 | 1.002 | 4 | 16 | 0 | 0.053 | 0.008 |
| YMR189W | 30774 | GCV2 | one-carbon compound metaboli | 2772 | 1.003 | 4 | 16 | 0 | -0.016 | 0.046 |
| YML104C | 36504 | MDM1 | mitochondrion organization and | 2773 | 1.003 | 4 | 16 | 0 | 0.008 | 0.064 |
| YLL015W | 31503 | BPT1 | bilirubin transport* | 2774 | 1.003 | 4 | 16 | 0 | 0.034 | 0.034 |
| YDL127W | 33824 | PCL2 | cell cycle | 2775 | 1.003 | 4 | 16 | 0 | 0.008 | 0.051 |
| YLR133W | 34090 | CKI1 | phosphatidylcholine biosynthesi | 2776 | 1.003 | 4 | 15 | 0 | 0.122 | 0.045 |
| YPR076W | 35495 | | | 2777 | 1.003 | 4 | 12 | 0 | -0.001 | 0.050 |
| YLR090W | 32701 | XDJ1 | biological_process unknown | 2778 | 1.003 | 4 | 16 | 0 | 0.020 | 0.063 |
| YNL108C | 32968 | | metabolism | 2779 | 1.003 | 4 | 16 | 0 | -0.018 | 0.030 |
| YPL267W | 31025 | | biological_process unknown | 2780 | 1.003 | 4 | 16 | 0 | 0.016 | 0.026 |
| YFL006W | 35622 | | biological_process unknown | 2781 | 1.003 | 4 | 8 | 0 | -0.093 | 0.050 |
| YBR206W | 33346 | | | 2782 | 1.003 | 4 | 16 | 0 | 0.009 | 0.042 |
| YCR075C | 37196 | ERS1 | L-cystine transport | 2783 | 1.003 | 4 | 16 | 0 | -0.053 | 0.054 |
| YML002W | 30574 | | biological_process unknown | 2784 | 1.003 | 4 | 8 | 0 | 0.064 | 0.050 |
| YPL232W | 31060 | SSO1 | nonselective vesicle fusion* | 2785 | 1.003 | 4 | 12 | 0 | -0.020 | 0.010 |
| YBR199W | 33339 | KTR4 | N-linked glycosylation | 2786 | 1.003 | 4 | 16 | 0 | 0.046 | 0.026 |
| YJL164C | 31261 | TPK1 | protein amino acid phosphoryla | 2787 | 1.003 | 4 | 16 | 0 | -0.036 | 0.037 |
| YNL324W | 31119 | | | 2788 | 1.003 | 4 | 16 | 0 | 0.076 | 0.019 |
| YKL128C | 34978 | PMU1 | biological_process unknown | 2789 | 1.003 | 4 | 16 | 0 | 0.016 | 0.077 |
| YDR440W | 34276 | DOT1 | chromatin silencing at telomere | 2790 | 1.003 | 4 | 16 | 0 | -0.059 | 0.028 |
| YNR070W | 36229 | PDR18 | transport | 2791 | 1.003 | 4 | 16 | 0 | -0.021 | 0.010 |
| YLR165C | 34114 | PUS5 | rRNA modification* | 2792 | 1.003 | 4 | 16 | 0 | -0.002 | 0.027 |
| YPL112C | 32140 | PEX25 | peroxisome organization and bi | 2793 | 1.003 | 4 | 16 | 0 | -0.050 | 0.090 |
| YJL213W | 37025 | | biological_process unknown | 2794 | 1.003 | 4 | 16 | 0 | -0.010 | 0.030 |
| YOR318C | 31615 | | | 2795 | 1.003 | 4 | 15 | 0 | -0.041 | 0.049 |
| YHR143W | 32836 | DSE2 | cell wall organization and bioge | 2796 | 1.003 | 4 | 16 | 0 | 0.123 | 0.150 |
| YPL184C | 32068 | | biological_process unknown | 2797 | 1.003 | 4 | 16 | 0 | 0.023 | 0.032 |
| YDR525W | 35829 | SNA2 | biological_process unknown | 2798 | 1.003 | 4 | 16 | 0 | -0.012 | 0.039 |
| YGR199W | 34829 | PMT6 | O-linked glycosylation | 2799 | 1.003 | 4 | 16 | 0 | -0.022 | 0.036 |
| YNL278W | 31166 | CAF120 | regulation of transcription from I | 2800 | 1.003 | 4 | 16 | 0 | 0.031 | 0.021 |
| YOR276W | 37334 | CAF20 | negative regulation of translatio | 2801 | 1.003 | 4 | 12 | 0 | -0.015 | 0.006 |
| YLR449W | 36053 | FPR4 | biological_process unknown | 2802 | 1.003 | 4 | 16 | 0 | 0.043 | 0.052 |
| YLL021W | 31509 | SPA2 | establishment of cell polarity (se | 2803 | 1.003 | 4 | 16 | 0 | 0.067 | 0.071 |
| YDR225W | 33584 | HTA1 | chromatin assembly/disassemb | 2804 | 1.003 | 4 | 16 | 0 | 0.010 | 0.056 |
| YAL065C | 30341 | | biological_process unknown | 2805 | 1.003 | 4 | 8 | 0 | 0.005 | 0.053 |
| YMR195W | 30781 | ICY1 | biological_process unknown | 2806 | 1.003 | 4 | 16 | 0 | 0.012 | 0.025 |
| YHR039C | 31002 | MSC7 | meiotic recombination | 2807 | 1.003 | 4 | 16 | 0 | 0.082 | 0.024 |

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|---|---|---|---|---|---|---|---|---|---|---|
| YER161C | 36157 | SPT2 | negative regulation of transcript | 2808 | 1.003 | 4 | 16 | 0 | -0.061 | 0.044 |
| YPR089W | 35506 | | biological_process unknown | 2809 | 1.003 | 4 | 16 | 0 | -0.022 | 0.059 |
| YER187W | 36183 | | biological_process unknown | 2810 | 1.003 | 4 | 16 | 0 | -0.011 | 0.058 |
| YOR186W | 32442 | | biological_process unknown | 2811 | 1.003 | 4 | 16 | 0 | 0.019 | 0.059 |
| YNL187W | 32025 | | biological_process unknown | 2812 | 1.003 | 4 | 16 | 0 | 0.083 | 0.057 |
| YMR101C | 36541 | SRT1 | protein amino acid glycosylatior | 2813 | 1.003 | 4 | 16 | 0 | 0.010 | 0.037 |
| YJR131W | 36930 | MNS1 | N-linked glycosylation | 2814 | 1.003 | 4 | 16 | 0 | 0.115 | 0.122 |
| YJR049C | 36847 | UTR1 | iron ion homeostasis* | 2815 | 1.003 | 4 | 16 | 0 | 0.046 | 0.067 |
| YOR219C | 32475 | STE13 | peptide pheromone maturation | 2816 | 1.004 | 4 | 16 | 0 | 0.010 | 0.038 |
| YMR114C | 36554 | | biological_process unknown | 2817 | 1.004 | 4 | 15 | 0 | -0.034 | 0.063 |
| YIL030C | 37299 | SSM4 | mRNA polyadenylation | 2818 | 1.004 | 4 | 16 | 0 | -0.073 | 0.065 |
| YIL170W | 32329 | HXT12 | biological_process unknown | 2819 | 1.004 | 4 | 16 | 0 | -0.045 | 0.061 |
| YJR058C | 36856 | APS2 | vesicle-mediated transport | 2820 | 1.004 | 4 | 16 | 0 | 0.006 | 0.067 |
| YDR536W | 35831 | STL1 | transport | 2821 | 1.004 | 4 | 16 | 0 | -0.031 | 0.024 |
| YMR170C | 30753 | ALD2 | aldehyde metabolism* | 2822 | 1.004 | 4 | 11 | 0 | 0.051 | 0.017 |
| YHR160C | 32854 | PEX18 | protein-peroxisome targeting | 2823 | 1.004 | 4 | 8 | 0 | -0.010 | 0.035 |
| YMR313C | 36453 | TGL3 | lipid metabolism | 2824 | 1.004 | 4 | 16 | 0 | -0.066 | 0.065 |
| YNL140C | 37317 | | | 2825 | 1.004 | 4 | 12 | 0 | 0.143 | 0.068 |
| YFR047C | 35861 | BNA6 | nicotinamide adenine dinucleoti | 2826 | 1.004 | 4 | 16 | 0 | -0.060 | 0.054 |
| YIL097W | 31488 | FYV10 | negative regulation of gluconeo | 2827 | 1.004 | 4 | 15 | 0 | 0.047 | 0.095 |
| YOR008C | 31784 | SLG1 | cell wall organization and bioge | 2828 | 1.004 | 4 | 16 | 0 | -0.016 | 0.041 |
| YBR185C | 33325 | MBA1 | aerobic respiration* | 2829 | 1.004 | 4 | 16 | 0 | 0.012 | 0.048 |
| YOL036W | 31727 | | biological_process unknown | 2830 | 1.004 | 4 | 16 | 0 | -0.052 | 0.039 |
| YDR357C | 34194 | | biological_process unknown | 2831 | 1.004 | 4 | 15 | 0 | -0.035 | 0.114 |
| YHL010C | 30953 | | biological_process unknown | 2832 | 1.004 | 4 | 16 | 0 | -0.013 | 0.048 |
| YPR042C | 35461 | PUF2 | mRNA catabolism, deadenylatic | 2833 | 1.004 | 4 | 16 | 0 | -0.004 | 0.060 |
| YIL139C | 32298 | REV7 | DNA repair* | 2834 | 1.004 | 4 | 15 | 0 | 0.078 | 0.066 |
| YBR138C | 33277 | | biological_process unknown | 2835 | 1.004 | 4 | 15 | 0 | -0.108 | 0.021 |
| YDR321W | 33680 | ASP1 | asparagine catabolism | 2836 | 1.004 | 4 | 16 | 0 | 0.024 | 0.048 |
| YDR295C | 33654 | PLO2 | biological_process unknown | 2837 | 1.004 | 4 | 15 | 0 | 0.016 | 0.031 |
| YEL047C | 30288 | | metabolism | 2838 | 1.004 | 4 | 16 | 0 | 0.002 | 0.029 |
| YGR250C | 36999 | | biological_process unknown | 2839 | 1.004 | 4 | 16 | 0 | -0.049 | 0.048 |
| YOR271C | 37329 | | biological_process unknown | 2840 | 1.004 | 4 | 16 | 0 | 0.003 | 0.030 |
| YBR114W | 33253 | RAD16 | nucleotide-excision repair, DNA | 2841 | 1.004 | 4 | 16 | 0 | 0.041 | 0.044 |
| YDR426C | 34262 | | | 2842 | 1.004 | 4 | 16 | 0 | 0.018 | 0.033 |
| YBL064C | 33090 | PRX1 | regulation of redox homeostasis | 2843 | 1.004 | 4 | 16 | 0 | 0.027 | 0.029 |
| YNL266W | 31178 | | | 2844 | 1.004 | 4 | 16 | 0 | -0.004 | 0.025 |
| YMR084W | 36218 | | biological_process unknown | 2845 | 1.004 | 4 | 16 | 0 | -0.046 | 0.040 |
| YJL042W | 37092 | MHP1 | cell wall organization and bioge | 2846 | 1.004 | 4 | 16 | 0 | 0.010 | 0.030 |
| YKL198C | 35048 | PTK1 | polyamine transport | 2847 | 1.004 | 4 | 16 | 0 | -0.028 | 0.038 |
| YLR253W | 35162 | | biological_process unknown | 2848 | 1.004 | 4 | 16 | 0 | -0.058 | 0.026 |
| YLR191W | 34140 | PEX13 | peroxisome organization and bi | 2849 | 1.004 | 4 | 16 | 0 | 0.008 | 0.184 |
| YDL242W | 33939 | | | 2850 | 1.004 | 4 | 16 | 0 | -0.056 | 0.047 |
| YJR048W | 36846 | CYC1 | electron transport | 2851 | 1.004 | 4 | 11 | 0 | -0.010 | 0.006 |
| YBR075W | 33212 | | biological_process unknown | 2852 | 1.004 | 4 | 16 | 0 | 0.060 | 0.102 |
| YPR121W | 35536 | THI22 | thiamin biosynthesis | 2853 | 1.004 | 4 | 16 | 0 | -0.015 | 0.050 |
| YGR089W | 36989 | NNF2 | biological_process unknown | 2854 | 1.004 | 4 | 16 | 0 | 0.034 | 0.040 |
| YML029W | 30544 | USA1 | biological_process unknown | 2855 | 1.004 | 4 | 8 | 0 | 0.064 | 0.058 |
| YGR105W | 34735 | VMA21 | protein complex assembly | 2856 | 1.004 | 3 | 6 | 0 | | |
| YDL146W | 33844 | | biological_process unknown | 2857 | 1.004 | 4 | 11 | 0 | 0.028 | 0.021 |
| YNL012W | 35340 | SPO1 | meiosis | 2858 | 1.004 | 4 | 16 | 0 | -0.007 | 0.061 |
| YHL046C | 30917 | | biological_process unknown | 2859 | 1.004 | 4 | 16 | 0 | 0.038 | 0.037 |

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|---|---|---|---|---|---|---|---|---|---|---|
| YHR014W | 30977 | SPO13 | positive regulation of sister chro | 2860 | 1.004 | 4 | 16 | 0 | 0.006 | 0.032 |
| YNL329C | 31115 | PEX6 | peroxisome organization and bi | 2861 | 1.004 | 4 | 16 | 0 | -0.002 | 0.011 |
| YGR291C | 37295 | | | 2862 | 1.004 | 4 | 16 | 0 | -0.006 | 0.033 |
| YAL026C | 30382 | DRS2 | intracellular protein transport* | 2863 | 1.005 | 4 | 8 | 0 | 0.072 | 0.076 |
| YNR013C | 35388 | PHO91 | phosphate transport | 2864 | 1.005 | 4 | 16 | 0 | -0.009 | 0.095 |
| YJL122W | 31303 | | biological_process unknown | 2865 | 1.005 | 4 | 8 | 0 | -0.029 | 0.012 |
| YNL049C | 35374 | SFB2 | ER to Golgi transport | 2866 | 1.005 | 4 | 16 | 0 | -0.007 | 0.052 |
| YIL096C | 31487 | | biological_process unknown | 2867 | 1.005 | 4 | 16 | 0 | 0.023 | 0.022 |
| YER039C | 30172 | HVG1 | biological_process unknown | 2868 | 1.005 | 4 | 12 | 0 | 0.038 | 0.024 |
| YER170W | 36166 | ADK2 | biological_process unknown | 2869 | 1.005 | 4 | 16 | 0 | 0.013 | 0.031 |
| YDR111C | 34045 | | biological_process unknown | 2870 | 1.005 | 4 | 16 | 0 | 0.050 | 0.069 |
| YMR291W | 30878 | | biological_process unknown | 2871 | 1.005 | 4 | 16 | 0 | 0.003 | 0.040 |
| YHR086W | 31914 | NAM8 | nuclear mRNA splicing, via splic | 2872 | 1.005 | 4 | 16 | 0 | 0.039 | 0.017 |
| YBR275C | 37170 | RIF1 | chromatin silencing at telomere | 2873 | 1.005 | 4 | 16 | 0 | -0.025 | 0.039 |
| YGR231C | 35884 | PHB2 | proteolysis and peptidolysis* | 2874 | 1.005 | 4 | 11 | 0 | 0.016 | 0.019 |
| YIL059C | 31452 | | | 2875 | 1.005 | 4 | 16 | 0 | -0.007 | 0.039 |
| YJR010W | 36808 | MET3 | methionine metabolism* | 2876 | 1.005 | 4 | 16 | 0 | -0.011 | 0.036 |
| YKR053C | 37054 | YSR3 | sphingolipid biosynthesis | 2877 | 1.005 | 4 | 16 | 0 | -0.011 | 0.061 |
| YOL151W | 37320 | GRE2 | response to stress | 2878 | 1.005 | 4 | 16 | 0 | -0.007 | 0.035 |
| YNL123W | 32953 | | biological_process unknown | 2879 | 1.005 | 4 | 16 | 0 | -0.018 | 0.034 |
| YER183C | 36179 | FAU1 | folic acid and derivative biosynt | 2880 | 1.005 | 4 | 16 | 0 | -0.029 | 0.084 |
| YOR292C | 31588 | | biological_process unknown | 2881 | 1.005 | 4 | 12 | 0 | 0.010 | 0.027 |
| YLR170C | 34119 | APS1 | vesicle-mediated transport | 2882 | 1.005 | 4 | 16 | 0 | -0.024 | 0.045 |
| YMR264W | 30850 | CUE1 | ER-associated protein catabolis | 2883 | 1.005 | 4 | 16 | 0 | -0.013 | 0.038 |
| YKR056W | 35127 | TRM2 | tRNA modification | 2884 | 1.005 | 4 | 16 | 0 | -0.013 | 0.046 |
| YOR094W | 31870 | ARF3 | intracellular protein transport | 2885 | 1.005 | 4 | 16 | 0 | 0.015 | 0.029 |
| YNR039C | 35414 | ZRG17 | zinc ion transport | 2886 | 1.005 | 4 | 16 | 0 | -0.001 | 0.016 |
| YKL062W | 34911 | MSN4 | response to stress* | 2887 | 1.005 | 4 | 16 | 0 | -0.098 | 0.091 |
| YLR064W | 32675 | | biological_process unknown | 2888 | 1.005 | 4 | 16 | 0 | 0.063 | 0.041 |
| YPR051W | 35470 | MAK3 | virus-host interaction* | 2889 | 1.005 | 4 | 16 | 0 | -0.050 | 0.052 |
| YEL063C | 30305 | CAN1 | basic amino acid transport | 2890 | 1.005 | 4 | 16 | 0 | 0.020 | 0.070 |
| YJL022W | 36790 | | | 2891 | 1.005 | 4 | 16 | 0 | -0.035 | 0.049 |
| YMR161W | 30744 | HLJ1 | biological_process unknown | 2892 | 1.005 | 4 | 15 | 0 | 0.024 | 0.066 |
| YAL009W | 30399 | SPO7 | meiosis* | 2893 | 1.005 | 4 | 8 | 0 | 0.038 | 0.012 |
| YKR093W | 36009 | PTR2 | peptide transport | 2894 | 1.005 | 4 | 16 | 0 | -0.038 | 0.048 |
| YMR010W | 30585 | | biological_process unknown | 2895 | 1.005 | 4 | 8 | 0 | 0.087 | 0.029 |
| YLR122C | 32733 | | | 2896 | 1.005 | 4 | 15 | 0 | 0.030 | 0.096 |
| YHR035W | 30998 | | biological_process unknown | 2897 | 1.005 | 4 | 16 | 0 | 0.036 | 0.043 |
| YGR252W | 37285 | GCN5 | histone acetylation* | 2898 | 1.005 | 4 | 11 | 0 | -0.004 | 0.012 |
| YDR055W | 33991 | PST1 | biological_process unknown | 2899 | 1.005 | 4 | 16 | 0 | -0.040 | 0.051 |
| YPL025C | 32803 | | | 2900 | 1.005 | 4 | 15 | 0 | 0.005 | 0.016 |
| YPR128C | 35543 | ANT1 | peroxisome organization and bi | 2901 | 1.005 | 4 | 16 | 0 | -0.016 | 0.036 |
| YDR248C | 33607 | | biological_process unknown | 2902 | 1.005 | 4 | 16 | 0 | 0.097 | 0.051 |
| YNL191W | 32021 | | biological_process unknown | 2903 | 1.005 | 4 | 16 | 0 | 0.059 | 0.067 |
| YEL065W | 30307 | SIT1 | iron ion homeostasis* | 2904 | 1.005 | 4 | 16 | 0 | 0.022 | 0.025 |
| YPR001W | 32828 | CIT3 | tricarboxylic acid cycle* | 2905 | 1.005 | 4 | 16 | 0 | 0.029 | 0.056 |
| YPR111W | 35527 | DBF20 | protein amino acid phosphorylat | 2906 | 1.005 | 4 | 16 | 0 | -0.033 | 0.037 |
| YKR060W | 35131 | UTP30 | biological_process unknown | 2907 | 1.005 | 4 | 12 | 0 | -0.044 | 0.052 |
| YLR108C | 32719 | | biological_process unknown | 2908 | 1.005 | 4 | 16 | 0 | 0.020 | 0.014 |
| YHR132W | 37298 | | biological_process unknown | 2909 | 1.005 | 4 | 16 | 0 | -0.018 | 0.022 |
| YGL141W | 34508 | HUL5 | protein monoubiquitination* | 2910 | 1.005 | 4 | 8 | 0 | 0.072 | 0.077 |
| YPL066W | 32762 | | biological_process unknown | 2911 | 1.005 | 4 | 16 | 0 | -0.014 | 0.023 |

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|---|---|---|---|---|---|---|---|---|---|---|
| YPL111W | 32141 | CAR1 | arginine catabolism to ornithine | 2912 | 1.005 | 4 | 16 | 0 | 0.006 | 0.066 |
| YKL005C | 36942 | BYE1 | biological_process unknown | 2913 | 1.005 | 4 | 16 | 0 | 0.004 | 0.038 |
| YNL042W | 35367 | BOP3 | biological_process unknown | 2914 | 1.005 | 4 | 16 | 0 | -0.005 | 0.048 |
| YPL055C | 32773 | LGE1 | meiosis* | 2915 | 1.005 | 4 | 8 | 0 | 0.004 | 0.009 |
| YEL008W | 30248 | | | 2916 | 1.005 | 4 | 16 | 0 | 0.049 | 0.055 |
| YFR035C | 35849 | | biological_process unknown | 2917 | 1.006 | 4 | 16 | 0 | -0.041 | 0.034 |
| YJL092W | 31331 | HPR5 | DNA repair* | 2918 | 1.006 | 4 | 8 | 0 | 0.230 | 0.008 |
| YNL127W | 32949 | FAR11 | cell cycle arrest in response to p | 2919 | 1.006 | 4 | 16 | 0 | 0.059 | 0.020 |
| YBR184W | 33324 | | biological_process unknown | 2920 | 1.006 | 4 | 16 | 0 | 0.084 | 0.073 |
| YNL024C | 35350 | | biological_process unknown | 2921 | 1.006 | 4 | 16 | 0 | -0.041 | 0.062 |
| YPR045C | 35464 | | biological_process unknown | 2922 | 1.006 | 4 | 16 | 0 | -0.020 | 0.054 |
| YER140W | 36138 | | biological_process unknown | 2923 | 1.006 | 4 | 16 | 0 | 0.033 | 0.017 |
| YKR073C | 35989 | | | 2924 | 1.006 | 4 | 16 | 0 | 0.009 | 0.023 |
| YFL043C | 35664 | | | 2925 | 1.006 | 4 | 16 | 0 | 0.000 | 0.064 |
| YOR328W | 31625 | PDR10 | multidrug transport | 2926 | 1.006 | 4 | 16 | 0 | 0.002 | 0.037 |
| YDR491C | 34325 | | | 2927 | 1.006 | 4 | 16 | 0 | 0.013 | 0.026 |
| YLR296W | 35206 | | | 2928 | 1.006 | 4 | 16 | 0 | 0.034 | 0.049 |
| YLR279W | 35188 | | | 2929 | 1.006 | 4 | 16 | 0 | 0.037 | 0.040 |
| YDR304C | 33663 | CPR5 | biological_process unknown | 2930 | 1.006 | 4 | 16 | 0 | 0.029 | 0.032 |
| YOR121C | 32377 | | | 2931 | 1.006 | 4 | 16 | 0 | -0.052 | 0.051 |
| YGL110C | 34477 | CUE3 | biological_process unknown | 2932 | 1.006 | 4 | 8 | 0 | -0.023 | 0.055 |
| YDL219W | 33917 | DTD1 | D-amino acid catabolism | 2933 | 1.006 | 4 | 16 | 0 | 0.048 | 0.036 |
| YOR044W | 31820 | | biological_process unknown | 2934 | 1.006 | 4 | 16 | 0 | 0.012 | 0.046 |
| YOR100C | 32356 | CRC1 | fatty acid metabolism | 2935 | 1.006 | 4 | 16 | 0 | 0.005 | 0.075 |
| YHL040C | 30923 | ARN1 | iron-siderochrome transport | 2936 | 1.006 | 4 | 16 | 0 | 0.011 | 0.034 |
| YGL196W | 34563 | | biological_process unknown | 2937 | 1.006 | 4 | 16 | 0 | 0.009 | 0.084 |
| YIR035C | 35970 | | biological_process unknown | 2938 | 1.006 | 4 | 16 | 0 | -0.024 | 0.023 |
| YOL105C | 36255 | WSC3 | cell wall organization and bioge | 2939 | 1.006 | 4 | 16 | 0 | -0.077 | 0.035 |
| YBL019W | 33045 | APN2 | DNA repair | 2940 | 1.006 | 4 | 16 | 0 | 0.009 | 0.017 |
| YDR152W | 33510 | GIR2 | biological_process unknown | 2941 | 1.006 | 4 | 16 | 0 | -0.024 | 0.022 |
| YBR013C | 33150 | | biological_process unknown | 2942 | 1.006 | 4 | 16 | 0 | 0.058 | 0.044 |
| YHR150W | 32844 | PEX28 | peroxisome organization and bi | 2943 | 1.006 | 4 | 15 | 0 | 0.033 | 0.028 |
| YML054C | 30517 | CYB2 | electron transport | 2944 | 1.006 | 4 | 8 | 0 | 0.010 | 0.000 |
| YKL161C | 35011 | | biological_process unknown | 2945 | 1.006 | 4 | 16 | 0 | 0.038 | 0.047 |
| YBR183W | 33323 | YPC1 | ceramide metabolism | 2946 | 1.006 | 4 | 16 | 0 | 0.022 | 0.075 |
| YBR105C | 33244 | VID24 | vesicle-mediated transport* | 2947 | 1.006 | 4 | 16 | 0 | 0.049 | 0.012 |
| YIL113W | 32272 | SDP1 | MAPKKK cascade (cell wall bio | 2948 | 1.006 | 4 | 16 | 0 | 0.026 | 0.044 |
| YNL092W | 32984 | | biological_process unknown | 2949 | 1.006 | 4 | 16 | 0 | 0.008 | 0.056 |
| YOR228C | 32484 | | biological_process unknown | 2950 | 1.006 | 4 | 16 | 0 | 0.025 | 0.025 |
| YNL034W | 35359 | | biological_process unknown | 2951 | 1.006 | 4 | 16 | 0 | 0.014 | 0.033 |
| YJL186W | 31239 | MNN5 | protein amino acid glycosylatior | 2952 | 1.006 | 4 | 16 | 0 | 0.004 | 0.023 |
| YGL221C | 34587 | NIF3 | biological_process unknown | 2953 | 1.006 | 4 | 16 | 0 | -0.004 | 0.010 |
| YLR238W | 35147 | FAR10 | cell cycle arrest in response to p | 2954 | 1.006 | 4 | 16 | 0 | 0.031 | 0.080 |
| YOR222W | 32478 | ODC2 | mitochondrial transport | 2955 | 1.006 | 4 | 16 | 0 | 0.003 | 0.024 |
| YNL157W | 32055 | | biological_process unknown | 2956 | 1.006 | 4 | 15 | 0 | 0.002 | 0.039 |
| YPL119C | 32133 | DBP1 | mRNA processing | 2957 | 1.007 | 4 | 16 | 0 | 0.024 | 0.046 |
| YNL338W | 31106 | | | 2958 | 1.007 | 4 | 16 | 0 | 0.007 | 0.039 |
| YDR234W | 33593 | LYS4 | lysine biosynthesis, aminoadipic | 2959 | 1.007 | 4 | 16 | 0 | 0.006 | 0.041 |
| YHR049W | 31876 | | biological_process unknown | 2960 | 1.007 | 4 | 16 | 0 | 0.026 | 0.014 |
| YJL003W | 36771 | COX16 | aerobic respiration* | 2961 | 1.007 | 4 | 15 | 0 | 0.015 | 0.086 |
| YBR015C | 33152 | MNN2 | protein amino acid glycosylatior | 2962 | 1.007 | 4 | 16 | 0 | -0.035 | 0.085 |
| YMR176W | 30761 | ECM5 | cell wall organization and bioge | 2963 | 1.007 | 4 | 16 | 0 | -0.017 | 0.033 |

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|---|---|---|---|---|---|---|---|---|---|---|
| YMR173W | 30758 | | | 2964 | 1.007 | 4 | 16 | 0 | 0.010 | 0.038 |
| YMR222C | 30808 | | biological_process unknown | 2965 | 1.007 | 4 | 16 | 0 | 0.034 | 0.012 |
| YHR079C | 35949 | | | 2966 | 1.007 | 4 | 15 | 0 | -0.014 | 0.025 |
| YIR034C | 35969 | LYS1 | lysine biosynthesis, aminoadipic | 2967 | 1.007 | 4 | 16 | 0 | -0.078 | 0.087 |
| YER065C | 30202 | ICL1 | glyoxylate cycle | 2968 | 1.007 | 4 | 16 | 0 | -0.011 | 0.028 |
| YIL107C | 32266 | PFK26 | fructose 2,6-bisphosphate meta | 2969 | 1.007 | 4 | 16 | 0 | -0.075 | 0.021 |
| YJL044C | 31379 | GYP6 | intracellular protein transport | 2970 | 1.007 | 4 | 15 | 0 | 0.019 | 0.076 |
| YLR455W | 37111 | | biological_process unknown | 2971 | 1.007 | 4 | 16 | 0 | -0.015 | 0.025 |
| YLR401C | 35310 | DUS3 | tRNA modification | 2972 | 1.007 | 4 | 16 | 0 | -0.052 | 0.028 |
| YHR113W | 31941 | | biological_process unknown | 2973 | 1.007 | 4 | 16 | 0 | 0.027 | 0.020 |
| YMR139W | 36745 | RIM11 | protein amino acid phosphorylat | 2974 | 1.007 | 4 | 16 | 0 | -0.016 | 0.033 |
| YOL107W | 36257 | | biological_process unknown | 2975 | 1.007 | 4 | 16 | 0 | -0.002 | 0.059 |
| YLR121C | 32732 | YPS3 | protein metabolism | 2976 | 1.007 | 4 | 16 | 0 | -0.003 | 0.029 |
| YFL004W | 37273 | VTC2 | vacuole fusion (non-autophagic | 2977 | 1.007 | 4 | 16 | 0 | -0.034 | 0.034 |
| YGR266W | 35918 | | biological_process unknown | 2978 | 1.007 | 4 | 16 | 0 | -0.037 | 0.016 |
| YPR194C | 35609 | OPT2 | oligopeptide transport | 2979 | 1.007 | 4 | 16 | 0 | -0.017 | 0.032 |
| YPR098C | 35515 | | biological_process unknown | 2980 | 1.007 | 4 | 16 | 0 | -0.079 | 0.063 |
| YMR244W | 30830 | | biological_process unknown | 2981 | 1.007 | 4 | 16 | 0 | 0.048 | 0.052 |
| YPR062W | 35481 | FCY1 | cytosine metabolism | 2982 | 1.007 | 4 | 16 | 0 | 0.029 | 0.017 |
| YLR148W | 34105 | PEP3 | late endosome to vacuole trans | 2983 | 1.007 | 3 | 6 | 0 | | |
| YKR076W | 35992 | ECM4 | cell wall organization and bioge | 2984 | 1.007 | 4 | 16 | 0 | -0.046 | 0.018 |
| YLR082C | 32693 | SRL2 | nucleobase, nucleoside, nucleo | 2985 | 1.007 | 4 | 16 | 0 | 0.012 | 0.087 |
| YGR286C | 35938 | BIO2 | biotin biosynthesis | 2986 | 1.007 | 4 | 8 | 0 | 0.001 | 0.004 |
| YGR209C | 34839 | TRX2 | response to oxidative stress* | 2987 | 1.008 | 4 | 16 | 0 | 0.006 | 0.030 |
| YOL114C | 36264 | | biological_process unknown | 2988 | 1.008 | 4 | 12 | 0 | 0.070 | 0.015 |
| YKL212W | 35062 | SAC1 | dephosphorylation* | 2989 | 1.008 | 4 | 16 | 0 | -0.106 | 0.026 |
| YBR214W | 33354 | SDS24 | meiosis* | 2990 | 1.008 | 4 | 16 | 0 | 0.035 | 0.046 |
| YER019W | 30150 | ISC1 | salinity response* | 2991 | 1.008 | 4 | 16 | 0 | 0.140 | 0.042 |
| YDL182W | 33880 | LYS20 | lysine biosynthesis, aminoadipic | 2992 | 1.008 | 4 | 16 | 0 | 0.002 | 0.068 |
| YOR101W | 32357 | RAS1 | RAS protein signal transduction | 2993 | 1.008 | 4 | 16 | 0 | 0.022 | 0.029 |
| YLR398C | 35307 | SKI2 | mRNA catabolism* | 2994 | 1.008 | 4 | 12 | 0 | -0.014 | 0.009 |
| YBR144C | 33283 | | | 2995 | 1.008 | 4 | 15 | 0 | -0.117 | 0.067 |
| YGR124W | 34754 | ASN2 | asparagine biosynthesis | 2996 | 1.008 | 4 | 16 | 0 | -0.056 | 0.045 |
| YDR259C | 33618 | YAP6 | positive regulation of transcripti | 2997 | 1.008 | 4 | 16 | 0 | -0.007 | 0.043 |
| YBR226C | 33366 | | | 2998 | 1.008 | 4 | 16 | 0 | 0.070 | 0.021 |
| YKL091C | 34940 | | biological_process unknown | 2999 | 1.008 | 4 | 16 | 0 | -0.032 | 0.041 |
| YDR428C | 34264 | | biological_process unknown | 3000 | 1.008 | 4 | 11 | 0 | -0.045 | 0.052 |
| YOR384W | 31681 | FRE5 | biological_process unknown | 3001 | 1.008 | 4 | 16 | 0 | 0.026 | 0.044 |
| YML035C | 30538 | | | 3002 | 1.008 | 4 | 8 | 0 | 0.042 | 0.063 |
| YOR198C | 32454 | BFR1 | meiosis* | 3003 | 1.008 | 4 | 16 | 0 | 0.019 | 0.048 |
| YKL085W | 34934 | MDH1 | tricarboxylic acid cycle* | 3004 | 1.008 | 4 | 16 | 0 | -0.011 | 0.063 |
| YML116W | 36516 | ATR1 | multidrug transport | 3005 | 1.008 | 4 | 16 | 0 | 0.033 | 0.094 |
| YOL041C | 31732 | NOP12 | rRNA metabolism | 3006 | 1.008 | 4 | 15 | 0 | -0.029 | 0.102 |
| YGL175C | 34542 | SAE2 | meiotic DNA double-strand brea | 3007 | 1.008 | 4 | 16 | 0 | -0.020 | 0.026 |
| YGL209W | 34575 | MIG2 | regulation of transcription from I | 3008 | 1.008 | 4 | 16 | 0 | -0.041 | 0.017 |
| YNL200C | 32012 | | biological_process unknown | 3009 | 1.008 | 4 | 16 | 0 | -0.023 | 0.018 |
| YJL160C | 37009 | | biological_process unknown | 3010 | 1.008 | 4 | 16 | 0 | -0.010 | 0.025 |
| YKR023W | 37043 | | biological_process unknown | 3011 | 1.008 | 4 | 16 | 0 | -0.037 | 0.030 |
| YOR064C | 31840 | YNG1 | histone acetylation* | 3012 | 1.008 | 4 | 16 | 0 | 0.006 | 0.017 |
| YOR062C | 31838 | | biological_process unknown | 3013 | 1.008 | 4 | 16 | 0 | 0.007 | 0.042 |
| YOL128C | 36278 | YGK3 | protein amino acid phosphorylat | 3014 | 1.008 | 4 | 16 | 0 | 0.096 | 0.024 |
| YLL020C | 31508 | | | 3015 | 1.008 | 4 | 16 | 0 | 0.041 | 0.041 |

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|---|---|---|---|---|---|---|---|---|---|---|
| YPR115W | 35531 | | biological_process unknown | 3016 | 1.008 | 4 | 16 | 0 | 0.001 | 0.033 |
| YPR092W | 35509 | | | 3017 | 1.008 | 4 | 16 | 0 | 0.005 | 0.109 |
| YLL038C | 31526 | ENT4 | actin filament organization* | 3018 | 1.008 | 4 | 16 | 0 | -0.042 | 0.022 |
| YBL098W | 33124 | BNA4 | nicotinamide adenine dinucleoti | 3019 | 1.008 | 4 | 12 | 0 | 0.027 | 0.073 |
| YGR019W | 34649 | UGA1 | nitrogen utilization | 3020 | 1.008 | 4 | 16 | 0 | 0.003 | 0.061 |
| YER152C | 36149 | | biological_process unknown | 3021 | 1.008 | 4 | 16 | 0 | 0.014 | 0.061 |
| YPL070W | 32758 | MUK1 | biological_process unknown | 3022 | 1.008 | 4 | 16 | 0 | -0.002 | 0.019 |
| YNL270C | 31174 | ALP1 | basic amino acid transport | 3023 | 1.008 | 4 | 16 | 0 | 0.046 | 0.019 |
| YBR141C | 33280 | | biological_process unknown | 3024 | 1.008 | 4 | 12 | 0 | -0.010 | 0.041 |
| YEL052W | 30293 | AFG1 | biological_process unknown | 3025 | 1.009 | 4 | 16 | 0 | 0.012 | 0.025 |
| YNL212W | 32000 | VID27 | biological_process unknown | 3026 | 1.009 | 4 | 16 | 0 | 0.024 | 0.048 |
| YJR084W | 36899 | CSN12 | adaptation to pheromone during | 3027 | 1.009 | 4 | 12 | 0 | 0.017 | 0.072 |
| YDL142C | 33840 | CRD1 | lipid biosynthesis* | 3028 | 1.009 | 4 | 15 | 0 | -0.001 | 0.019 |
| YKL162C- | 35980 | | | 3029 | 1.009 | 4 | 16 | 0 | -0.034 | 0.033 |
| YCL035C | 36681 | GRX1 | response to oxidative stress* | 3030 | 1.009 | 4 | 16 | 0 | 0.018 | 0.051 |
| YOL053W | 31745 | | biological_process unknown | 3031 | 1.009 | 4 | 16 | 0 | -0.008 | 0.034 |
| YMR135C | 36576 | GID8 | negative regulation of gluconeo | 3032 | 1.009 | 4 | 16 | 0 | 0.019 | 0.028 |
| YOR357C | 31654 | GRD19 | protein localization | 3033 | 1.009 | 4 | 16 | 0 | 0.022 | 0.023 |
| YPL187W | 32065 | MF(ALPHA | response to pheromone during | 3034 | 1.009 | 4 | 8 | 0 | -0.005 | 0.013 |
| YDR379W | 34215 | RGA2 | establishment of cell polarity (se | 3035 | 1.009 | 4 | 11 | 0 | -0.024 | 0.044 |
| YOR195W | 32451 | SLK19 | meiosis* | 3036 | 1.009 | 4 | 16 | 0 | -0.033 | 0.047 |
| YKL120W | 34970 | OAC1 | sulfate transport* | 3037 | 1.009 | 4 | 16 | 0 | -0.052 | 0.040 |
| YOR247W | 32503 | SRL1 | nucleobase, nucleoside, nucleo | 3038 | 1.009 | 4 | 16 | 0 | 0.021 | 0.057 |
| YMR226C | 30812 | | L-serine metabolism | 3039 | 1.009 | 4 | 16 | 0 | -0.045 | 0.041 |
| YHR095W | 31923 | | | 3040 | 1.009 | 4 | 16 | 0 | 0.015 | 0.042 |
| YNL125C | 37245 | ESBP6 | transport | 3041 | 1.009 | 4 | 16 | 0 | 0.111 | 0.095 |
| YDR445C | 36972 | | | 3042 | 1.009 | 4 | 16 | 0 | -0.078 | 0.028 |
| YLR200W | 34149 | YKE2 | protein folding* | 3043 | 1.009 | 4 | 11 | 0 | 0.028 | 0.004 |
| YLR228C | 35137 | ECM22 | sterol biosynthesis | 3044 | 1.009 | 4 | 8 | 0 | -0.019 | 0.024 |
| YKL034W | 34883 | TUL1 | protein transport | 3045 | 1.009 | 4 | 16 | 0 | 0.024 | 0.032 |
| YGL232W | 34599 | | biological_process unknown | 3046 | 1.009 | 4 | 16 | 0 | 0.009 | 0.055 |
| YPR075C | 35494 | OPY2 | cell cycle arrest in response to p | 3047 | 1.009 | 4 | 16 | 0 | 0.019 | 0.016 |
| YNL235C | 31977 | | | 3048 | 1.009 | 4 | 8 | 0 | 0.010 | 0.063 |
| YLR135W | 34092 | SLX4 | DNA replication | 3049 | 1.009 | 4 | 16 | 0 | 0.013 | 0.037 |
| YJR009C | 36806 | TDH2 | gluconeogenesis* | 3050 | 1.009 | 4 | 16 | 0 | 0.026 | 0.046 |
| YHL008C | 30955 | | biological_process unknown | 3051 | 1.009 | 4 | 16 | 0 | -0.005 | 0.052 |
| YOR052C | 31828 | | biological_process unknown | 3052 | 1.009 | 4 | 16 | 0 | 0.010 | 0.037 |
| YNL051W | 37209 | COG5 | intra-Golgi transport | 3053 | 1.009 | 4 | 16 | 0 | 0.074 | 0.060 |
| YDR400W | 34236 | URH1 | pyrimidine salvage* | 3054 | 1.009 | 4 | 16 | 0 | -0.044 | 0.050 |
| YLR038C | 36436 | COX12 | cytochrome c oxidase biogenes | 3055 | 1.009 | 4 | 16 | 0 | -0.025 | 0.057 |
| YOL053C- | 31744 | | | 3056 | 1.009 | 4 | 16 | 0 | -0.013 | 0.052 |
| YDR333C | 33692 | | biological_process unknown | 3057 | 1.009 | 4 | 16 | 0 | 0.006 | 0.021 |
| YMR254C | 30840 | | | 3058 | 1.009 | 4 | 16 | 0 | 0.063 | 0.046 |
| YIL123W | 32282 | SIM1 | microtubule cytoskeleton organi | 3059 | 1.009 | 4 | 16 | 0 | 0.039 | 0.033 |
| YJR001W | 36798 | AVT1 | neutral amino acid transport | 3060 | 1.009 | 4 | 16 | 0 | 0.013 | 0.075 |
| YNL293W | 31151 | MSB3 | actin filament organization* | 3061 | 1.009 | 4 | 16 | 0 | 0.020 | 0.035 |
| YIL037C | 31430 | PRM2 | conjugation with cellular fusion | 3062 | 1.009 | 3 | 9 | 0 | | |
| YLR042C | 32653 | | biological_process unknown | 3063 | 1.009 | 4 | 16 | 0 | 0.064 | 0.069 |
| YDL197C | 33895 | ASF2 | chromatin silencing at HML and | 3064 | 1.010 | 4 | 16 | 0 | 0.011 | 0.028 |
| YMR174C | 36072 | PAI3 | vacuolar protein catabolism | 3065 | 1.010 | 4 | 16 | 0 | -0.023 | 0.082 |
| YAL067C | 30339 | SEO1 | transport | 3066 | 1.010 | 4 | 8 | 0 | 0.042 | 0.041 |
| YPL121C | 32131 | MEI5 | biological_process unknown | 3067 | 1.010 | 4 | 16 | 0 | -0.014 | 0.058 |

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|---|---|---|---|---|---|---|---|---|---|---|
| YOR042W | 31818 | CUE5 | biological_process unknown | 3068 | 1.010 | 4 | 16 | 0 | 0.008 | 0.015 |
| YGL217C | 34583 | | | 3069 | 1.010 | 4 | 16 | 0 | -0.026 | 0.017 |
| YKL100C | 34950 | | biological_process unknown | 3070 | 1.010 | 4 | 8 | 0 | -0.005 | 0.011 |
| YOR139C | 32395 | | | 3071 | 1.010 | 4 | 14 | 0 | 0.047 | 0.040 |
| YLR047C | 32658 | | biological_process unknown | 3072 | 1.010 | 4 | 16 | 0 | 0.050 | 0.058 |
| YMR294W | 30882 | | | 3073 | 1.010 | 4 | 15 | 0 | 0.066 | 0.007 |
| YMR105C | 36545 | PGM2 | glucose 1-phosphate utilization* | 3074 | 1.010 | 4 | 16 | 0 | -0.042 | 0.053 |
| YER095W | 36401 | RAD51 | chromatin modeling* | 3075 | 1.010 | 4 | 8 | 0 | -0.041 | 0.021 |
| YDL133C- | 36964 | RPL41B | protein biosynthesis | 3076 | 1.010 | 4 | 16 | 0 | -0.008 | 0.039 |
| YBR020W | 33157 | GAL1 | galactose metabolism | 3077 | 1.010 | 4 | 16 | 0 | -0.079 | 0.065 |
| YHR181W | 36420 | SVP26 | biological_process unknown | 3078 | 1.010 | 4 | 16 | 0 | 0.092 | 0.031 |
| YDR393W | 34229 | SHE9 | mitochondrion organization and | 3079 | 1.010 | 4 | 16 | 0 | -0.062 | 0.092 |
| YOR230W | 32486 | WTM1 | regulation of meiosis | 3080 | 1.010 | 4 | 12 | 0 | 0.031 | 0.028 |
| YPR198W | 35613 | SGE1 | response to drug* | 3081 | 1.010 | 4 | 16 | 0 | -0.033 | 0.048 |
| YMR038C | 30614 | LYS7 | intracellular copper ion transpor | 3082 | 1.010 | 4 | 8 | 0 | 0.127 | 0.031 |
| YML058W | 30512 | SML1 | mitochondrion organization and | 3083 | 1.010 | 4 | 8 | 0 | 0.013 | 0.021 |
| YGR210C | 36407 | | biological_process unknown | 3084 | 1.010 | 4 | 16 | 0 | 0.103 | 0.085 |
| YOL013C | 31704 | HRD1 | ER-associated protein catabolis | 3085 | 1.010 | 4 | 8 | 0 | -0.023 | 0.003 |
| YHR152W | 32846 | SPO12 | regulation of exit from mitosis* | 3086 | 1.010 | 4 | 16 | 0 | 0.073 | 0.032 |
| YMR151W | 30731 | YIM2 | biological_process unknown | 3087 | 1.010 | 4 | 16 | 0 | 0.027 | 0.062 |
| YGL205W | 34571 | POX1 | fatty acid beta-oxidation | 3088 | 1.010 | 4 | 15 | 0 | 0.010 | 0.104 |
| YHR138C | 31966 | | vacuole fusion (non-autophagic | 3089 | 1.010 | 4 | 16 | 0 | -0.025 | 0.051 |
| YCR002C | 33482 | CDC10 | cell wall organization and bioge | 3090 | 1.010 | 4 | 8 | 0 | 0.041 | 0.002 |
| YNL197C | 32015 | WHI3 | regulation of cell size | 3091 | 1.010 | 4 | 16 | 0 | -0.065 | 0.026 |
| YER046W | 36584 | SPO73 | sporulation (sensu Saccharomy | 3092 | 1.010 | 4 | 16 | 0 | 0.023 | 0.052 |
| YLR346C | 36711 | | biological_process unknown | 3093 | 1.010 | 4 | 16 | 0 | 0.026 | 0.012 |
| YBR180W | 33320 | DTR1 | spore wall assembly (sensu Sac | 3094 | 1.010 | 4 | 16 | 0 | -0.040 | 0.030 |
| YDR344C | 34181 | | | 3095 | 1.010 | 4 | 16 | 0 | -0.054 | 0.023 |
| YJL027C | 36795 | | biological_process unknown | 3096 | 1.010 | 4 | 16 | 0 | 0.015 | 0.024 |
| YDR345C | 34182 | HXT3 | hexose transport | 3097 | 1.010 | 4 | 15 | 0 | 0.008 | 0.054 |
| YER176W | 36172 | ECM32 | regulation of translational termir | 3098 | 1.010 | 4 | 16 | 0 | -0.028 | 0.036 |
| YPR030W | 35449 | CSR2 | cell wall organization and bioge | 3099 | 1.010 | 4 | 12 | 0 | -0.042 | 0.012 |
| YIR004W | 32340 | DJP1 | peroxisome matrix protein impo | 3100 | 1.010 | 4 | 16 | 0 | 0.003 | 0.055 |
| YGR230W | 35883 | BNS1 | meiosis | 3101 | 1.011 | 4 | 16 | 0 | -0.038 | 0.020 |
| YPR020W | 35439 | ATP20 | ATP synthesis coupled proton tr | 3102 | 1.011 | 4 | 16 | 0 | 0.006 | 0.040 |
| YDL177C | 33875 | | biological_process unknown | 3103 | 1.011 | 4 | 16 | 0 | -0.022 | 0.054 |
| YDR132C | 34066 | | biological_process unknown | 3104 | 1.011 | 4 | 16 | 0 | -0.027 | 0.050 |
| YHR156C | 32850 | LIN1 | biological_process unknown | 3105 | 1.011 | 4 | 16 | 0 | 0.034 | 0.046 |
| YLR004C | 31559 | | transport | 3106 | 1.011 | 4 | 16 | 0 | 0.042 | 0.033 |
| YPR093C | 35510 | | biological_process unknown | 3107 | 1.011 | 4 | 16 | 0 | -0.023 | 0.074 |
| YEL041W | 30282 | | biological_process unknown | 3108 | 1.011 | 4 | 12 | 0 | 0.000 | 0.020 |
| YKL090W | 34939 | CUE2 | biological_process unknown | 3109 | 1.011 | 4 | 16 | 0 | 0.017 | 0.052 |
| YPR130C | 35545 | | | 3110 | 1.011 | 4 | 16 | 0 | 0.037 | 0.031 |
| YMR242C | 30828 | RPL20A | protein biosynthesis | 3111 | 1.011 | 4 | 16 | 0 | 0.015 | 0.030 |
| YKR044W | 35115 | UIP5 | biological_process unknown | 3112 | 1.011 | 4 | 8 | 0 | 0.006 | 0.011 |
| YMR182C | 30767 | RGM1 | negative regulation of transcript | 3113 | 1.011 | 4 | 16 | 0 | 0.044 | 0.039 |
| YNL231C | 31981 | PDR16 | response to drug* | 3114 | 1.011 | 4 | 12 | 0 | -0.009 | 0.028 |
| YIL020C | 31413 | HIS6 | histidine biosynthesis | 3115 | 1.011 | 4 | 16 | 0 | 0.047 | 0.024 |
| YMR201C | 30787 | RAD14 | nucleotide-excision repair, DNA | 3116 | 1.011 | 4 | 16 | 0 | 0.026 | 0.136 |
| YEL011W | 36388 | GLC3 | glycogen metabolism | 3117 | 1.011 | 4 | 16 | 0 | -0.003 | 0.014 |
| YGR238C | 36996 | KEL2 | conjugation with cellular fusion | 3118 | 1.011 | 4 | 16 | 0 | 0.008 | 0.061 |
| YHR078W | 31906 | | biological_process unknown | 3119 | 1.011 | 4 | 16 | 0 | 0.017 | 0.049 |

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|---|---|---|---|---|---|---|---|---|---|---|
| YLR429W | 36032 | CRN1 | actin filament organization* | 3120 | 1.011 | 4 | 8 | 0 | -0.047 | 0.040 |
| YJL214W | 31211 | HXT8 | hexose transport | 3121 | 1.011 | 4 | 12 | 0 | 0.022 | 0.035 |
| YOR386W | 31683 | PHR1 | photoreactive repair | 3122 | 1.011 | 4 | 15 | 0 | 0.018 | 0.034 |
| YAR044W | 30430 | OSH1 | steroid biosynthesis | 3123 | 1.011 | 4 | 8 | 0 | 0.053 | 0.020 |
| YJL133W | 31292 | MRS3 | transport* | 3124 | 1.011 | 4 | 16 | 0 | 0.021 | 0.070 |
| YDR312W | 33671 | SSF2 | ribosomal large subunit assemb | 3125 | 1.011 | 4 | 16 | 0 | 0.009 | 0.031 |
| YMR190C | 30775 | SGS1 | mitotic chromosome segregatio | 3126 | 1.011 | 4 | 14 | 0 | 0.070 | 0.090 |
| YMR223W | 30809 | UBP8 | protein deubiquitination | 3127 | 1.011 | 4 | 16 | 0 | 0.034 | 0.056 |
| YGR206W | 34836 | | biological_process unknown | 3128 | 1.011 | 4 | 16 | 0 | -0.021 | 0.053 |
| YMR077C | 36211 | VPS20 | late endosome to vacuole trans | 3129 | 1.011 | 4 | 15 | 0 | 0.002 | 0.069 |
| YAL015C | 30393 | NTG1 | DNA repair* | 3130 | 1.011 | 4 | 8 | 0 | 0.003 | 0.044 |
| YER141W | 36139 | COX15 | cytochrome c oxidase biogenes | 3131 | 1.011 | 4 | 16 | 0 | 0.006 | 0.034 |
| YLR363C | 35272 | NMD4 | mRNA catabolism, nonsense-m | 3132 | 1.011 | 4 | 16 | 0 | 0.021 | 0.043 |
| YOL030W | 31721 | GAS5 | biological_process unknown | 3133 | 1.011 | 4 | 16 | 0 | 0.064 | 0.050 |
| YNL058C | 33018 | | biological_process unknown | 3134 | 1.011 | 4 | 16 | 0 | 0.111 | 0.034 |
| YPL262W | 31030 | FUM1 | tricarboxylic acid cycle* | 3135 | 1.011 | 4 | 11 | 0 | 0.063 | 0.026 |
| YIL114C | 32273 | POR2 | ion transport | 3136 | 1.011 | 4 | 16 | 0 | 0.050 | 0.033 |
| YPL250C | 31042 | ICY2 | biological_process unknown | 3137 | 1.012 | 4 | 16 | 0 | 0.004 | 0.037 |
| YBR090C | 33229 | | | 3138 | 1.012 | 4 | 16 | 0 | 0.060 | 0.033 |
| YOR082C | 31858 | | | 3139 | 1.012 | 4 | 16 | 0 | 0.043 | 0.027 |
| YDR391C | 34227 | | biological_process unknown | 3140 | 1.012 | 4 | 15 | 0 | -0.030 | 0.015 |
| YDL096C | 33793 | | | 3141 | 1.012 | 4 | 16 | 0 | 0.034 | 0.024 |
| YBR204C | 33344 | | biological_process unknown | 3142 | 1.012 | 4 | 16 | 0 | -0.213 | 0.062 |
| YDL187C | 33885 | | | 3143 | 1.012 | 4 | 16 | 0 | 0.069 | 0.086 |
| YLR213C | 34162 | CRR1 | biological_process unknown | 3144 | 1.012 | 4 | 16 | 0 | -0.026 | 0.037 |
| YLR199C | 34148 | | biological_process unknown | 3145 | 1.012 | 4 | 16 | 0 | 0.024 | 0.069 |
| YMR169C | 36071 | ALD3 | response to stress* | 3146 | 1.012 | 4 | 15 | 0 | 0.009 | 0.078 |
| YIL055C | 31448 | | biological_process unknown | 3147 | 1.012 | 4 | 16 | 0 | 0.043 | 0.026 |
| YML074C | 36486 | FPR3 | biological_process unknown | 3148 | 1.012 | 4 | 16 | 0 | -0.008 | 0.040 |
| YMR187C | 30772 | | biological_process unknown | 3149 | 1.012 | 4 | 16 | 0 | 0.030 | 0.033 |
| YKL069W | 34918 | | biological_process unknown | 3150 | 1.012 | 4 | 16 | 0 | -0.010 | 0.019 |
| YEL071W | 30313 | DLD3 | lactate metabolism | 3151 | 1.012 | 4 | 16 | 0 | 0.057 | 0.054 |
| YDR330W | 33689 | | ubiquitin-dependent protein cata | 3152 | 1.012 | 4 | 16 | 0 | -0.004 | 0.043 |
| YGR137W | 34767 | | | 3153 | 1.012 | 4 | 16 | 0 | -0.006 | 0.062 |
| YJR116W | 36919 | | biological_process unknown | 3154 | 1.012 | 4 | 16 | 0 | -0.014 | 0.010 |
| YDL068W | 33765 | | | 3155 | 1.012 | 4 | 12 | 0 | -0.021 | 0.019 |
| YJR126C | 36929 | VPS70 | protein-vacuolar targeting | 3156 | 1.012 | 4 | 16 | 0 | -0.024 | 0.030 |
| YDR476C | 34310 | | biological_process unknown | 3157 | 1.012 | 4 | 15 | 0 | -0.036 | 0.064 |
| YDR287W | 33646 | | myo-inositol metabolism | 3158 | 1.012 | 4 | 15 | 0 | 0.025 | 0.037 |
| YLR225C | 34174 | | biological_process unknown | 3159 | 1.012 | 4 | 16 | 0 | -0.016 | 0.043 |
| YLR187W | 34136 | | biological_process unknown | 3160 | 1.012 | 4 | 16 | 0 | -0.024 | 0.034 |
| YLR350W | 35259 | ORM2 | biological_process unknown | 3161 | 1.012 | 4 | 12 | 0 | -0.025 | 0.027 |
| YOL017W | 31708 | ESC8 | chromatin silencing | 3162 | 1.012 | 4 | 11 | 0 | 0.022 | 0.030 |
| YLR400W | 35309 | | | 3163 | 1.012 | 4 | 16 | 0 | -0.007 | 0.023 |
| YLR041W | 36439 | | | 3164 | 1.012 | 4 | 16 | 0 | 0.040 | 0.026 |
| YPL105C | 32147 | | biological_process unknown | 3165 | 1.012 | 4 | 16 | 0 | 0.070 | 0.028 |
| YOR382W | 31679 | FIT2 | siderochrome transport | 3166 | 1.012 | 4 | 16 | 0 | 0.018 | 0.032 |
| YDR422C | 34258 | SIP1 | protein amino acid phosphorylat | 3167 | 1.012 | 4 | 14 | 0 | 0.033 | 0.014 |
| YML096W | 36494 | | biological_process unknown | 3168 | 1.012 | 4 | 15 | 0 | 0.028 | 0.057 |
| YDL170W | 33868 | UGA3 | regulation of transcription from I | 3169 | 1.012 | 4 | 16 | 0 | -0.034 | 0.033 |
| YNR066C | 36093 | | biological_process unknown | 3170 | 1.012 | 4 | 16 | 0 | 0.004 | 0.033 |
| YIL164C | 32323 | NIT1 | biological_process unknown | 3171 | 1.012 | 4 | 16 | 0 | -0.049 | 0.009 |

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|---|---|---|---|---|---|---|---|---|---|---|
| YOR364W | 31661 | | | 3172 | 1.012 | 4 | 16 | 0 | -0.005 | 0.020 |
| YNR030W | 35405 | ECM39 | protein amino acid glycosylatior | 3173 | 1.012 | 4 | 16 | 0 | -0.026 | 0.083 |
| YIL088C | 31479 | AVT7 | transport | 3174 | 1.012 | 4 | 16 | 0 | -0.022 | 0.033 |
| YJR118C | 36921 | ILM1 | biological_process unknown | 3175 | 1.012 | 3 | 6 | 0 | | |
| YBL101C | 33127 | ECM21 | cell wall organization and bioge | 3176 | 1.012 | 3 | 6 | 0 | | |
| YDR306C | 33665 | | ubiquitin-dependent protein cata | 3177 | 1.012 | 4 | 16 | 0 | -0.035 | 0.031 |
| YGR260W | 35912 | TNA1 | nicotinamide mononucleotide tra | 3178 | 1.012 | 4 | 16 | 0 | 0.011 | 0.071 |
| YOR068C | 31844 | VAM10 | vacuole fusion (non-autophagic | 3179 | 1.012 | 4 | 16 | 0 | 0.061 | 0.021 |
| YGL228W | 34595 | SHE10 | biological_process unknown | 3180 | 1.012 | 4 | 16 | 0 | 0.025 | 0.021 |
| YGL132W | 34499 | | | 3181 | 1.013 | 4 | 16 | 0 | 0.047 | 0.060 |
| YKR046C | 37053 | PET10 | biological_process unknown | 3182 | 1.013 | 4 | 16 | 0 | -0.029 | 0.046 |
| YBR205W | 33345 | KTR3 | cell wall organization and bioge | 3183 | 1.013 | 4 | 16 | 0 | -0.058 | 0.047 |
| YDR262W | 33621 | | biological_process unknown | 3184 | 1.013 | 4 | 16 | 0 | -0.033 | 0.072 |
| YDL171C | 33869 | GLT1 | glutamate biosynthesis | 3185 | 1.013 | 4 | 16 | 0 | -0.003 | 0.054 |
| YMR192W | 30777 | APP2 | biological_process unknown | 3186 | 1.013 | 4 | 16 | 0 | 0.018 | 0.016 |
| YDL094C | 33791 | | | 3187 | 1.013 | 4 | 16 | 0 | 0.018 | 0.052 |
| YHL005C | 30959 | | | 3188 | 1.013 | 4 | 16 | 0 | -0.045 | 0.011 |
| YDR349C | 34186 | YPS7 | biological_process unknown | 3189 | 1.013 | 4 | 16 | 0 | -0.008 | 0.013 |
| YEL015W | 30255 | EDC3 | biological_process unknown | 3190 | 1.013 | 4 | 16 | 0 | 0.072 | 0.030 |
| YER019C- | 30151 | SBH2 | cotranslational membrane targe | 3191 | 1.013 | 4 | 16 | 0 | -0.031 | 0.043 |
| YNL090W | 37230 | RHO2 | cell wall organization and bioge | 3192 | 1.013 | 4 | 16 | 0 | 0.008 | 0.036 |
| YLR202C | 34151 | | | 3193 | 1.013 | 4 | 16 | 0 | -0.100 | 0.032 |
| YHR146W | 37089 | CRP1 | biological_process unknown | 3194 | 1.013 | 4 | 8 | 0 | -0.011 | 0.014 |
| YPR052C | 35471 | NHP6A | regulation of transcription from I | 3195 | 1.013 | 4 | 16 | 0 | 0.011 | 0.031 |
| YHL037C | 30926 | | | 3196 | 1.013 | 4 | 16 | 0 | 0.076 | 0.025 |
| YGR193C | 34823 | PDX1 | acetyl-CoA biosynthesis from py | 3197 | 1.013 | 4 | 16 | 0 | 0.003 | 0.043 |
| YNL032W | 35358 | SIW14 | response to stress* | 3198 | 1.013 | 4 | 16 | 0 | 0.001 | 0.043 |
| YJL071W | 31352 | ARG2 | arginine biosynthesis* | 3199 | 1.013 | 4 | 16 | 0 | -0.049 | 0.061 |
| YHR094C | 31922 | HXT1 | hexose transport | 3200 | 1.013 | 4 | 16 | 0 | -0.002 | 0.016 |
| YOR084W | 31860 | | peroxisome organization and bi | 3201 | 1.013 | 4 | 16 | 0 | 0.037 | 0.040 |
| YDL227C | 33925 | HO | mating-type switching/recombin | 3202 | 1.013 | 4 | 16 | 0 | 0.014 | 0.060 |
| YBR116C | 33255 | | | 3203 | 1.013 | 4 | 16 | 0 | 0.070 | 0.024 |
| YBR134W | 33273 | | | 3204 | 1.013 | 4 | 12 | 0 | 0.047 | 0.051 |
| YFL051C | 35672 | | biological_process unknown | 3205 | 1.013 | 4 | 16 | 0 | 0.008 | 0.019 |
| YLR128W | 34085 | | biological_process unknown | 3206 | 1.013 | 4 | 16 | 0 | 0.027 | 0.024 |
| YGR144W | 34774 | THI4 | DNA repair* | 3207 | 1.013 | 4 | 16 | 0 | 0.016 | 0.029 |
| YER039C- | 35838 | | biological_process unknown | 3208 | 1.014 | 4 | 16 | 0 | 0.040 | 0.037 |
| YGL160W | 34527 | | biological_process unknown | 3209 | 1.014 | 4 | 16 | 0 | 0.004 | 0.013 |
| YBR233W | 33373 | PBP2 | biological_process unknown | 3210 | 1.014 | 4 | 16 | 0 | 0.016 | 0.043 |
| YNR024W | 35399 | | biological_process unknown | 3211 | 1.014 | 4 | 16 | 0 | 0.007 | 0.026 |
| YPL134C | 36480 | ODC1 | mitochondrial transport | 3212 | 1.014 | 4 | 16 | 0 | 0.019 | 0.076 |
| YLR017W | 31572 | MEU1 | glutamate biosynthesis | 3213 | 1.014 | 4 | 16 | 0 | 0.050 | 0.043 |
| YNL146W | 32930 | | biological_process unknown | 3214 | 1.014 | 4 | 8 | 0 | 0.022 | 0.022 |
| YBR059C | 33196 | AKL1 | biological_process unknown | 3215 | 1.014 | 4 | 16 | 0 | -0.033 | 0.022 |
| YLR203C | 34152 | MSS51 | protein biosynthesis* | 3216 | 1.014 | 4 | 16 | 0 | -0.001 | 0.052 |
| YKL206C | 35056 | | biological_process unknown | 3217 | 1.014 | 4 | 16 | 0 | -0.037 | 0.012 |
| YPR160W | 35575 | GPH1 | glycogen catabolism | 3218 | 1.014 | 4 | 16 | 0 | -0.058 | 0.040 |
| YOR027W | 31803 | STI1 | protein folding | 3219 | 1.014 | 4 | 16 | 0 | -0.057 | 0.088 |
| YCR043C | 35767 | | biological_process unknown | 3220 | 1.014 | 4 | 16 | 0 | -0.055 | 0.032 |
| YPR193C | 35608 | HPA2 | histone acetylation | 3221 | 1.014 | 4 | 16 | 0 | -0.009 | 0.065 |
| YOR299W | 31595 | BUD7 | bud site selection | 3222 | 1.014 | 4 | 16 | 0 | -0.102 | 0.028 |
| YBL053W | 33079 | | | 3223 | 1.014 | 4 | 16 | 0 | -0.010 | 0.047 |

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|---|---|---|---|---|---|---|---|---|---|---|
| YNL233W | 31979 | BNI4 | cytokinesis | 3224 | 1.014 | 4 | 16 | 0 | 0.095 | 0.034 |
| YIL155C | 32314 | GUT2 | carbohydrate metabolism* | 3225 | 1.014 | 4 | 16 | 0 | -0.042 | 0.032 |
| YIR014W | 32350 | | biological_process unknown | 3226 | 1.014 | 4 | 16 | 0 | 0.000 | 0.050 |
| YGL197W | 34564 | MDS3 | sporulation | 3227 | 1.014 | 4 | 12 | 0 | -0.044 | 0.057 |
| YGR108W | 34738 | CLB1 | G2/M transition of mitotic cell cy | 3228 | 1.014 | 4 | 16 | 0 | -0.008 | 0.043 |
| YMR103C | 36543 | | | 3229 | 1.014 | 4 | 12 | 0 | -0.013 | 0.027 |
| YBR107C | 33246 | IML3 | chromosome segregation | 3230 | 1.014 | 4 | 15 | 0 | -0.017 | 0.044 |
| YNL166C | 32046 | BNI5 | cytokinesis* | 3231 | 1.014 | 4 | 16 | 0 | 0.042 | 0.032 |
| YPL273W | 31019 | SAM4 | sulfur amino acid metabolism | 3232 | 1.014 | 4 | 16 | 0 | 0.008 | 0.037 |
| YJR074W | 36896 | MOG1 | protein-nucleus import | 3233 | 1.014 | 4 | 15 | 0 | 0.038 | 0.037 |
| YPL230W | 31062 | | biological_process unknown | 3234 | 1.014 | 4 | 16 | 0 | 0.039 | 0.055 |
| YLR107W | 32718 | REX3 | RNA processing | 3235 | 1.014 | 4 | 16 | 0 | 0.034 | 0.033 |
| YNL230C | 31982 | ELA1 | RNA elongation from Pol II pron | 3236 | 1.014 | 4 | 16 | 0 | -0.022 | 0.036 |
| YGR004W | 34634 | | biological_process unknown | 3237 | 1.015 | 4 | 15 | 0 | 0.027 | 0.050 |
| YMR029C | 30604 | FAR8 | cell cycle arrest in response to p | 3238 | 1.015 | 4 | 8 | 0 | 0.085 | 0.054 |
| YIR027C | 35962 | DAL1 | allantoin catabolism | 3239 | 1.015 | 4 | 16 | 0 | 0.016 | 0.082 |
| YGR222W | 35875 | PET54 | protein biosynthesis* | 3240 | 1.015 | 4 | 16 | 0 | -0.163 | 0.032 |
| YHL041W | 30922 | | | 3241 | 1.015 | 4 | 16 | 0 | 0.026 | 0.051 |
| YDR270W | 33629 | CCC2 | intracellular copper ion transpor | 3242 | 1.015 | 4 | 11 | 0 | 0.030 | 0.000 |
| YLR262C- | 36023 | | biological_process unknown | 3243 | 1.015 | 4 | 16 | 0 | -0.079 | 0.032 |
| YBR272C | 37169 | HSM3 | mismatch repair | 3244 | 1.015 | 4 | 16 | 0 | -0.009 | 0.079 |
| YLR412W | 35320 | | biological_process unknown | 3245 | 1.015 | 4 | 16 | 0 | 0.037 | 0.034 |
| YOR297C | 31593 | TIM18 | protein-membrane targeting* | 3246 | 1.015 | 4 | 16 | 0 | -0.035 | 0.070 |
| YLR452C | 36055 | SST2 | signal transduction* | 3247 | 1.015 | 4 | 16 | 0 | -0.101 | 0.040 |
| YBR131W | 37164 | CCZ1 | protein-vacuolar targeting* | 3248 | 1.015 | 4 | 16 | 0 | 0.088 | 0.044 |
| YPR014C | 35433 | | | 3249 | 1.015 | 4 | 16 | 0 | -0.062 | 0.063 |
| YJR015W | 36813 | | biological_process unknown | 3250 | 1.015 | 4 | 16 | 0 | 0.036 | 0.004 |
| YKR054C | 35125 | DYN1 | mitotic chromosome segregatio | 3251 | 1.015 | 4 | 8 | 0 | 0.034 | 0.079 |
| YER080W | 30220 | | biological_process unknown | 3252 | 1.015 | 4 | 16 | 0 | 0.018 | 0.010 |
| YGL095C | 34462 | VPS45 | protein complex assembly* | 3253 | 1.015 | 3 | 6 | 0 | | |
| YBL102W | 33130 | SFT2 | Golgi to endosome transport | 3254 | 1.015 | 4 | 16 | 0 | -0.006 | 0.014 |
| YJL200C | 37022 | | biological_process unknown | 3255 | 1.015 | 4 | 16 | 0 | -0.021 | 0.051 |
| YAL018C | 30390 | | biological_process unknown | 3256 | 1.015 | 4 | 8 | 0 | -0.020 | 0.001 |
| YMR295C | 30883 | | biological_process unknown | 3257 | 1.015 | 4 | 16 | 0 | 0.056 | 0.077 |
| YPL003W | 32825 | ULA1 | protein neddylation | 3258 | 1.015 | 4 | 16 | 0 | 0.028 | 0.030 |
| YER129W | 36128 | PAK1 | protein amino acid phosphorylat | 3259 | 1.015 | 4 | 16 | 0 | -0.003 | 0.073 |
| YDR424C | 36387 | DYN2 | microtubule-based process* | 3260 | 1.015 | 4 | 16 | 0 | 0.003 | 0.092 |
| YBL059W | 33085 | | biological_process unknown | 3261 | 1.015 | 4 | 8 | 0 | 0.012 | 0.030 |
| YKL109W | 34959 | HAP4 | transcription* | 3262 | 1.015 | 4 | 16 | 0 | -0.099 | 0.060 |
| YPL176C | 32076 | | biological_process unknown | 3263 | 1.015 | 4 | 15 | 0 | -0.015 | 0.009 |
| YNL129W | 32947 | | biological_process unknown | 3264 | 1.015 | 4 | 16 | 0 | 0.004 | 0.048 |
| YPR090W | 35507 | | biological_process unknown | 3265 | 1.015 | 4 | 16 | 0 | -0.030 | 0.049 |
| YDR506C | 34340 | | biological_process unknown | 3266 | 1.015 | 4 | 12 | 0 | 0.015 | 0.039 |
| YGL230C | 34597 | | biological_process unknown | 3267 | 1.015 | 4 | 16 | 0 | 0.057 | 0.038 |
| YIL138C | 32297 | TPM2 | establishment of cell polarity (se | 3268 | 1.015 | 4 | 16 | 0 | -0.038 | 0.042 |
| YDR515W | 37267 | SLF1 | regulation of translation* | 3269 | 1.015 | 4 | 16 | 0 | -0.034 | 0.023 |
| YLR001C | 31556 | | biological_process unknown | 3270 | 1.015 | 4 | 16 | 0 | -0.024 | 0.021 |
| YMR232W | 30818 | FUS2 | plasma membrane fusion | 3271 | 1.015 | 4 | 12 | 0 | -0.019 | 0.026 |
| YMR262W | 30848 | | biological_process unknown | 3272 | 1.015 | 4 | 16 | 0 | 0.095 | 0.026 |
| YIL105C | 32264 | LIT2 | biological_process unknown | 3273 | 1.015 | 4 | 8 | 0 | 0.035 | 0.035 |
| YOR245C | 32501 | DGA1 | triacylglycerol biosynthesis* | 3274 | 1.015 | 4 | 16 | 0 | 0.019 | 0.055 |
| YNL318C | 31126 | HXT14 | hexose transport | 3275 | 1.016 | 4 | 16 | 0 | 0.004 | 0.016 |

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|---|---|---|---|---|---|---|---|---|---|---|
| YHR037W | 31000 | PUT2 | glutamate biosynthesis* | 3276 | 1.016 | 4 | 16 | 0 | 0.110 | 0.016 |
| YJL080C | 31343 | SCP160 | chromosome segregation* | 3277 | 1.016 | 4 | 16 | 0 | 0.032 | 0.021 |
| YOR185C | 32441 | GSP2 | nuclear organization and bioger | 3278 | 1.016 | 4 | 16 | 0 | -0.010 | 0.015 |
| YBR008C | 33143 | FLR1 | response to toxin | 3279 | 1.016 | 4 | 16 | 0 | 0.027 | 0.015 |
| YGR072W | 34702 | UPF3 | mRNA catabolism* | 3280 | 1.016 | 4 | 16 | 0 | 0.013 | 0.072 |
| YPR156C | 35571 | TPO3 | polyamine transport | 3281 | 1.016 | 4 | 16 | 0 | -0.022 | 0.026 |
| YHR073W | 31901 | OSH3 | steroid biosynthesis | 3282 | 1.016 | 4 | 16 | 0 | 0.037 | 0.038 |
| YOL044W | 31735 | PEX15 | peroxisome organization and bi | 3283 | 1.016 | 4 | 14 | 0 | 0.086 | 0.034 |
| YKL063C | 34912 | | biological_process unknown | 3284 | 1.016 | 4 | 16 | 0 | 0.002 | 0.044 |
| YNR006W | 35381 | VPS27 | protein-Golgi retention | 3285 | 1.016 | 4 | 16 | 0 | 0.005 | 0.044 |
| YBR246W | 33386 | | biological_process unknown | 3286 | 1.016 | 4 | 16 | 0 | -0.001 | 0.053 |
| YOR093C | 31869 | | biological_process unknown | 3287 | 1.016 | 4 | 16 | 0 | 0.067 | 0.019 |
| YFR006W | 35685 | | biological_process unknown | 3288 | 1.016 | 4 | 16 | 0 | -0.010 | 0.015 |
| YLL019C | 31507 | KNS1 | protein amino acid phosphorylat | 3289 | 1.016 | 4 | 16 | 0 | 0.026 | 0.038 |
| YOL141W | 36650 | PPM2 | biological_process unknown | 3290 | 1.016 | 4 | 12 | 0 | -0.016 | 0.075 |
| YPR196W | 35611 | | biological_process unknown | 3291 | 1.016 | 4 | 16 | 0 | 0.000 | 0.027 |
| YIL071C | 31464 | PCI8 | protein deneddylation | 3292 | 1.016 | 4 | 16 | 0 | -0.002 | 0.056 |
| YMR286W | 30872 | MRPL33 | protein biosynthesis | 3293 | 1.016 | 4 | 12 | 0 | 0.099 | 0.019 |
| YOR317W | 36477 | FAA1 | lipid metabolism* | 3294 | 1.016 | 4 | 16 | 0 | -0.016 | 0.020 |
| YIL156W | 32315 | UBP7 | protein deubiquitination | 3295 | 1.017 | 4 | 12 | 0 | 0.006 | 0.059 |
| YOL047C | 31738 | | biological_process unknown | 3296 | 1.017 | 4 | 16 | 0 | 0.044 | 0.052 |
| YFR025C | 37082 | HIS2 | histidine biosynthesis | 3297 | 1.017 | 4 | 16 | 0 | 0.006 | 0.011 |
| YGL107C | 34474 | RMD9 | biological_process unknown | 3298 | 1.017 | 4 | 8 | 0 | 0.084 | 0.002 |
| YPL095C | 32157 | | biological_process unknown | 3299 | 1.017 | 4 | 16 | 0 | -0.006 | 0.014 |
| YIL065C | 31458 | FIS1 | mitochondrial fission | 3300 | 1.017 | 4 | 16 | 0 | -0.003 | 0.015 |
| YBL047C | 33073 | EDE1 | endocytosis | 3301 | 1.017 | 4 | 16 | 0 | 0.004 | 0.062 |
| YNL106C | 37239 | INP52 | cell wall organization and bioge | 3302 | 1.017 | 4 | 16 | 0 | 0.023 | 0.031 |
| YOR342C | 31639 | | biological_process unknown | 3303 | 1.017 | 4 | 12 | 0 | -0.064 | 0.050 |
| YLR151C | 34108 | PCD1 | biological_process unknown | 3304 | 1.017 | 4 | 16 | 0 | -0.028 | 0.040 |
| YOR087W | 31863 | YVC1 | cation homeostasis | 3305 | 1.017 | 4 | 11 | 0 | 0.032 | 0.017 |
| YNR032C | 36076 | HUB1 | cellular morphogenesis during c | 3306 | 1.017 | 4 | 16 | 0 | 0.046 | 0.039 |
| YKL092C | 34941 | BUD2 | polar budding* | 3307 | 1.017 | 4 | 15 | 0 | 0.065 | 0.043 |
| YPL109C | 32143 | | biological_process unknown | 3308 | 1.017 | 4 | 16 | 0 | 0.020 | 0.031 |
| YJR004C | 36801 | SAG1 | agglutination during conjugatior | 3309 | 1.017 | 4 | 16 | 0 | 0.056 | 0.022 |
| YPL026C | 32802 | SKS1 | protein amino acid phosphorylat | 3310 | 1.017 | 4 | 16 | 0 | 0.067 | 0.047 |
| YLR451W | 34082 | LEU3 | regulation of transcription from I | 3311 | 1.017 | 4 | 16 | 0 | -0.043 | 0.058 |
| YDR403W | 34239 | DIT1 | spore wall assembly (sensu Sac | 3312 | 1.017 | 4 | 15 | 0 | 0.064 | 0.037 |
| YDR513W | 34347 | TTR1 | response to oxidative stress* | 3313 | 1.017 | 4 | 16 | 0 | 0.014 | 0.026 |
| YBL107C | 33135 | | biological_process unknown | 3314 | 1.017 | 4 | 16 | 0 | 0.084 | 0.017 |
| YPL113C | 32139 | | metabolism | 3315 | 1.017 | 4 | 16 | 0 | 0.010 | 0.044 |
| YDR179W | 33538 | | biological_process unknown | 3316 | 1.017 | 4 | 16 | 0 | 0.052 | 0.007 |
| YBR150C | 37165 | TBS1 | biological_process unknown | 3317 | 1.017 | 4 | 16 | 0 | 0.044 | 0.109 |
| YHR022C | 30985 | | biological_process unknown | 3318 | 1.017 | 4 | 16 | 0 | 0.002 | 0.042 |
| YNR019W | 35394 | ARE2 | sterol metabolism | 3319 | 1.017 | 4 | 16 | 0 | -0.023 | 0.057 |
| YPL064C | 32764 | CWC27 | biological_process unknown | 3320 | 1.017 | 4 | 16 | 0 | 0.056 | 0.045 |
| YLR049C | 32660 | | biological_process unknown | 3321 | 1.018 | 4 | 16 | 0 | 0.070 | 0.044 |
| YJR069C | 36893 | HAM1 | DNA repair | 3322 | 1.018 | 4 | 16 | 0 | -0.012 | 0.030 |
| YER002W | 30323 | NOP16 | ribosomal large subunit biogene | 3323 | 1.018 | 4 | 16 | 0 | -0.008 | 0.031 |
| YOL104C | 36254 | NDJ1 | synapsis* | 3324 | 1.018 | 4 | 16 | 0 | -0.053 | 0.038 |
| YOR137C | 32393 | SIA1 | proton transport | 3325 | 1.018 | 4 | 16 | 0 | 0.044 | 0.084 |
| YKL156W | 35006 | RPS27A | protein biosynthesis | 3326 | 1.018 | 4 | 16 | 0 | 0.009 | 0.025 |
| YDR163W | 33521 | CWC15 | biological_process unknown | 3327 | 1.018 | 4 | 15 | 0 | 0.038 | 0.032 |

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|---|---|---|---|---|---|---|---|---|---|---|
| YHR117W | 31945 | TOM71 | biological_process unknown | 3328 | 1.018 | 4 | 16 | 0 | 0.009 | 0.027 |
| YGR110W | 36993 | | biological_process unknown | 3329 | 1.018 | 4 | 11 | 0 | -0.010 | 0.007 |
| YML089C | 30481 | | | 3330 | 1.018 | 4 | 8 | 0 | 0.023 | 0.001 |
| YOR009W | 31785 | TIR4 | biological_process unknown | 3331 | 1.018 | 4 | 16 | 0 | 0.021 | 0.045 |
| YDR415C | 34251 | | biological_process unknown | 3332 | 1.018 | 4 | 16 | 0 | 0.066 | 0.032 |
| YLL062C | 31550 | MHT1 | sulfur amino acid metabolism | 3333 | 1.018 | 4 | 15 | 0 | -0.005 | 0.016 |
| YNR009W | 35384 | | biological_process unknown | 3334 | 1.018 | 4 | 16 | 0 | 0.011 | 0.052 |
| YHR171W | 37090 | ATG7 | protein-vacuolar targeting* | 3335 | 1.018 | 4 | 16 | 0 | 0.030 | 0.068 |
| YCR099C | 35816 | | biological_process unknown | 3336 | 1.018 | 4 | 16 | 0 | 0.016 | 0.063 |
| YJL163C | 37011 | | biological_process unknown | 3337 | 1.018 | 4 | 12 | 0 | -0.049 | 0.030 |
| YAR040C | 30427 | | | 3338 | 1.018 | 4 | 8 | 0 | 0.087 | 0.010 |
| YDR282C | 33641 | | biological_process unknown | 3339 | 1.018 | 4 | 16 | 0 | 0.033 | 0.056 |
| YMR003W | 30578 | | biological_process unknown | 3340 | 1.018 | 4 | 8 | 0 | 0.094 | 0.033 |
| YFL019C | 37072 | | | 3341 | 1.018 | 4 | 12 | 0 | 0.012 | 0.019 |
| YDR430C | 34266 | CYM1 | biological_process unknown | 3342 | 1.018 | 4 | 16 | 0 | 0.045 | 0.048 |
| YJL037W | 31385 | | biological_process unknown | 3343 | 1.018 | 4 | 16 | 0 | -0.030 | 0.040 |
| YLR428C | 36031 | | | 3344 | 1.018 | 4 | 16 | 0 | 0.028 | 0.041 |
| YLR130C | 34087 | ZRT2 | low-affinity zinc ion transport | 3345 | 1.018 | 4 | 16 | 0 | 0.046 | 0.059 |
| YMR080C | 36214 | NAM7 | mRNA catabolism* | 3346 | 1.018 | 4 | 11 | 0 | 0.031 | 0.076 |
| YGR205W | 34835 | | biological_process unknown | 3347 | 1.018 | 4 | 16 | 0 | -0.011 | 0.028 |
| YJL016W | 36784 | | biological_process unknown | 3348 | 1.018 | 4 | 16 | 0 | 0.004 | 0.045 |
| YOR268C | 37326 | | | 3349 | 1.018 | 4 | 12 | 0 | 0.030 | 0.023 |
| YLR181C | 34130 | VTA1 | late endosome to vacuole trans | 3350 | 1.018 | 4 | 16 | 0 | 0.010 | 0.010 |
| YDR538W | 35833 | PAD1 | aromatic compound catabolism | 3351 | 1.018 | 4 | 16 | 0 | -0.033 | 0.093 |
| YJR053W | 36851 | BFA1 | conjugation with cellular fusion* | 3352 | 1.018 | 4 | 16 | 0 | 0.033 | 0.025 |
| YHR176W | 32870 | FMO | protein folding | 3353 | 1.018 | 4 | 16 | 0 | 0.062 | 0.038 |
| YOR019W | 31795 | | biological_process unknown | 3354 | 1.018 | 4 | 12 | 0 | 0.037 | 0.089 |
| YNL273W | 31171 | TOF1 | DNA topological change | 3355 | 1.018 | 4 | 14 | 0 | 0.015 | 0.011 |
| YBL066C | 33092 | SEF1 | biological_process unknown | 3356 | 1.018 | 4 | 16 | 0 | -0.002 | 0.018 |
| YBR137W | 33276 | | biological_process unknown | 3357 | 1.019 | 4 | 8 | 0 | -0.012 | 0.015 |
| YGL203C | 34570 | KEX1 | protein processing | 3358 | 1.019 | 4 | 16 | 0 | 0.075 | 0.088 |
| YER173W | 36169 | RAD24 | meiotic recombination* | 3359 | 1.019 | 4 | 11 | 0 | 0.007 | 0.025 |
| YLR289W | 35199 | GUF1 | biological_process unknown | 3360 | 1.019 | 4 | 16 | 0 | -0.034 | 0.018 |
| YOR209C | 32465 | NPT1 | chromatin silencing at telomere* | 3361 | 1.019 | 4 | 8 | 0 | 0.095 | 0.020 |
| YFR034C | 35848 | PHO4 | phosphate metabolism* | 3362 | 1.019 | 4 | 16 | 0 | -0.070 | 0.042 |
| YKL027W | 34876 | | biological_process unknown | 3363 | 1.019 | 4 | 16 | 0 | 0.052 | 0.049 |
| YPR192W | 35607 | AQY1 | water transport | 3364 | 1.019 | 4 | 16 | 0 | -0.055 | 0.020 |
| YLR142W | 34099 | PUT1 | glutamate biosynthesis* | 3365 | 1.019 | 4 | 16 | 0 | 0.050 | 0.040 |
| YOL076W | 31767 | MDM20 | cytoskeleton organization and b | 3366 | 1.019 | 4 | 11 | 0 | -0.031 | 0.111 |
| YML100W | 36499 | | biological_process unknown | 3367 | 1.019 | 4 | 16 | 0 | 0.044 | 0.049 |
| YLR246W | 36707 | ERF2 | protein-membrane targeting* | 3368 | 1.019 | 4 | 16 | 0 | 0.068 | 0.077 |
| YFL021W | 35640 | GAT1 | transcription initiation from Pol I | 3369 | 1.019 | 4 | 16 | 0 | 0.057 | 0.054 |
| YER169W | 36165 | RPH1 | DNA repair* | 3370 | 1.019 | 4 | 16 | 0 | 0.093 | 0.088 |
| YDR338C | 34177 | | biological_process unknown | 3371 | 1.019 | 4 | 16 | 0 | 0.008 | 0.071 |
| YMR135W | 36741 | | | 3372 | 1.019 | 4 | 16 | 0 | 0.033 | 0.028 |
| YGR276C | 37293 | RNH70 | DNA replication* | 3373 | 1.019 | 4 | 16 | 0 | -0.046 | 0.047 |
| YGL199C | 34566 | | | 3374 | 1.019 | 4 | 16 | 0 | 0.013 | 0.017 |
| YLR134W | 34091 | PDC5 | pyruvate metabolism* | 3375 | 1.019 | 4 | 8 | 0 | 0.023 | 0.017 |
| YDR363W | 35828 | SEM1 | regulation of cell cycle* | 3376 | 1.019 | 4 | 15 | 0 | 0.105 | 0.108 |
| YDR374C | 34210 | | biological_process unknown | 3377 | 1.019 | 4 | 12 | 0 | -0.159 | 0.031 |
| YEL062W | 30304 | NPR2 | urea transport* | 3378 | 1.019 | 4 | 16 | 0 | 0.039 | 0.024 |
| YCR081W | 35799 | SRB8 | negative regulation of transcript | 3379 | 1.019 | 4 | 16 | 0 | -0.002 | 0.069 |

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|---|---|---|---|---|---|---|---|---|---|---|
| YER120W | 36119 | SCS2 | protein-ER targeting* | 3380 | 1.019 | 4 | 16 | 0 | 0.006 | 0.040 |
| YDL130W | 33827 | RPP1B | protein biosynthesis* | 3381 | 1.019 | 4 | 16 | 0 | -0.190 | 0.057 |
| YDR274C | 33633 | | | 3382 | 1.019 | 4 | 16 | 0 | -0.020 | 0.032 |
| YPL236C | 31056 | | biological_process unknown | 3383 | 1.019 | 4 | 16 | 0 | 0.012 | 0.037 |
| YHR140W | 36415 | | biological_process unknown | 3384 | 1.019 | 4 | 12 | 0 | 0.006 | 0.027 |
| YOR147W | 32403 | MDM32 | mitochondrion organization and | 3385 | 1.019 | 4 | 12 | 0 | 0.103 | 0.070 |
| YER033C | 30165 | ZRG8 | biological_process unknown | 3386 | 1.019 | 4 | 16 | 0 | 0.020 | 0.033 |
| YOR069W | 31845 | VPS5 | protein-Golgi retention* | 3387 | 1.019 | 4 | 16 | 0 | 0.055 | 0.045 |
| YLR138W | 34095 | NHA1 | monovalent inorganic cation ho | 3388 | 1.020 | 4 | 8 | 0 | -0.067 | 0.041 |
| YPL120W | 32132 | VPS30 | protein-vacuolar targeting* | 3389 | 1.020 | 4 | 16 | 0 | -0.010 | 0.042 |
| YBL079W | 33105 | NUP170 | mRNA-nucleus export* | 3390 | 1.020 | 4 | 16 | 0 | 0.027 | 0.021 |
| YLR072W | 32683 | | biological_process unknown | 3391 | 1.020 | 4 | 16 | 0 | -0.008 | 0.085 |
| YDL122W | 33819 | UBP1 | protein deubiquitination | 3392 | 1.020 | 4 | 16 | 0 | 0.032 | 0.045 |
| YFR044C | 35858 | | biological_process unknown | 3393 | 1.020 | 4 | 16 | 0 | -0.053 | 0.038 |
| YGL125W | 34492 | MET13 | protein biosynthesis* | 3394 | 1.020 | 4 | 16 | 0 | -0.074 | 0.078 |
| YBL080C | 33106 | PET112 | protein biosynthesis* | 3395 | 1.020 | 4 | 12 | 0 | -0.035 | 0.078 |
| YLR154C | 34111 | RNH203 | biological_process unknown | 3396 | 1.020 | 4 | 16 | 0 | 0.049 | 0.031 |
| YLR308W | 35216 | CDA2 | spore wall assembly (sensu Sa | 3397 | 1.020 | 4 | 8 | 0 | -0.110 | 0.066 |
| YOR274W | 37332 | MOD5 | tRNA modification | 3398 | 1.020 | 4 | 16 | 0 | 0.020 | 0.023 |
| YPL127C | 32125 | HHO1 | regulation of transcription, DNA | 3399 | 1.020 | 4 | 16 | 0 | -0.044 | 0.065 |
| YJR038C | 36836 | | | 3400 | 1.020 | 4 | 16 | 0 | -0.018 | 0.051 |
| YDL183C | 33881 | | biological_process unknown | 3401 | 1.020 | 4 | 15 | 0 | 0.088 | 0.061 |
| YOR030W | 31806 | DFG16 | invasive growth | 3402 | 1.020 | 4 | 15 | 0 | -0.060 | 0.119 |
| YJL065C | 31359 | | biological_process unknown | 3403 | 1.021 | 4 | 16 | 0 | 0.004 | 0.073 |
| YJL191W | 37019 | RPS14B | protein biosynthesis* | 3404 | 1.021 | 4 | 16 | 0 | -0.067 | 0.045 |
| YOR138C | 32394 | | biological_process unknown | 3405 | 1.021 | 4 | 16 | 0 | 0.021 | 0.099 |
| YDL167C | 33865 | NRP1 | biological_process unknown | 3406 | 1.021 | 4 | 16 | 0 | 0.033 | 0.036 |
| YJR050W | 36848 | ISY1 | nuclear mRNA splicing, via spli | 3407 | 1.021 | 4 | 16 | 0 | 0.043 | 0.060 |
| YGR053C | 36985 | | biological_process unknown | 3408 | 1.021 | 4 | 16 | 0 | -0.002 | 0.004 |
| YMR086W | 36221 | | biological_process unknown | 3409 | 1.021 | 4 | 16 | 0 | -0.004 | 0.018 |
| YLR365W | 35274 | | | 3410 | 1.021 | 4 | 16 | 0 | 0.024 | 0.052 |
| YJR061W | 36859 | | biological_process unknown | 3411 | 1.021 | 4 | 16 | 0 | 0.001 | 0.024 |
| YPL168W | 32084 | | biological_process unknown | 3412 | 1.021 | 4 | 16 | 0 | -0.029 | 0.063 |
| YHR045W | 36413 | | biological_process unknown | 3413 | 1.021 | 4 | 12 | 0 | -0.045 | 0.058 |
| YBR213W | 33353 | MET8 | sulfate assimilation* | 3414 | 1.021 | 4 | 16 | 0 | 0.046 | 0.029 |
| YPR129W | 35544 | SCD6 | biological_process unknown | 3415 | 1.021 | 4 | 15 | 0 | -0.015 | 0.043 |
| YLR376C | 35285 | PSY3 | biological_process unknown | 3416 | 1.021 | 4 | 16 | 0 | 0.061 | 0.030 |
| YML048W | 30524 | | | 3417 | 1.021 | 4 | 8 | 0 | 0.059 | 0.047 |
| YLR450W | 36054 | HMG2 | ergosterol biosynthesis | 3418 | 1.021 | 4 | 16 | 0 | 0.038 | 0.008 |
| YBR159W | 33298 | | fatty acid elongation | 3419 | 1.021 | 4 | 16 | 0 | 0.088 | 0.036 |
| YDL241W | 33938 | | biological_process unknown | 3420 | 1.021 | 4 | 12 | 0 | 0.067 | 0.050 |
| YML005W | 30571 | | biological_process unknown | 3421 | 1.021 | 4 | 8 | 0 | 0.105 | 0.079 |
| YDR247W | 33606 | VHS1 | protein amino acid phosphoryla | 3422 | 1.021 | 4 | 16 | 0 | 0.040 | 0.043 |
| YDR537C | 36973 | | | 3423 | 1.021 | 4 | 16 | 0 | -0.008 | 0.047 |
| YPL197C | 31095 | | | 3424 | 1.021 | 4 | 8 | 0 | 0.038 | 0.011 |
| YGR143W | 34773 | SKN1 | cell wall organization and bioge | 3425 | 1.021 | 4 | 16 | 0 | 0.014 | 0.033 |
| YGR122W | 34752 | | biological_process unknown | 3426 | 1.021 | 4 | 16 | 0 | 0.012 | 0.069 |
| YDL100C | 33797 | ARR4 | biological_process unknown | 3427 | 1.021 | 4 | 16 | 0 | 0.057 | 0.041 |
| YGR003W | 34633 | CUL3 | biological_process unknown | 3428 | 1.021 | 4 | 16 | 0 | 0.024 | 0.080 |
| YLR102C | 32713 | APC9 | ubiquitin-dependent protein cat | 3429 | 1.021 | 4 | 16 | 0 | 0.046 | 0.010 |
| YGR269W | 35921 | | | 3430 | 1.021 | 4 | 8 | 0 | 0.048 | 0.003 |
| YMR251W | 30837 | HOR7 | response to stress | 3431 | 1.021 | 4 | 16 | 0 | 0.029 | 0.022 |

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|---|---|---|---|---|---|---|---|---|---|---|
| YPL162C | 32090 | | biological_process unknown | 3432 | 1.021 | 4 | 16 | 0 | 0.073 | 0.046 |
| YLR059C | 32670 | REX2 | RNA processing | 3433 | 1.021 | 4 | 16 | 0 | 0.115 | 0.071 |
| YAL017W | 30391 | PSK1 | protein amino acid phosphorylat | 3434 | 1.021 | 4 | 8 | 0 | 0.057 | 0.003 |
| YPR004C | 32831 | | biological_process unknown | 3435 | 1.021 | 4 | 16 | 0 | -0.008 | 0.043 |
| YNL143C | 32933 | | | 3436 | 1.021 | 4 | 15 | 0 | 0.024 | 0.015 |
| YPR095C | 35512 | SYT1 | secretory pathway | 3437 | 1.022 | 4 | 16 | 0 | -0.006 | 0.045 |
| YKL010C | 34859 | UFD4 | protein monoubiquitination* | 3438 | 1.022 | 4 | 16 | 0 | -0.024 | 0.035 |
| YMR058W | 36192 | FET3 | high affinity iron ion transport | 3439 | 1.022 | 4 | 12 | 0 | 0.084 | 0.044 |
| YNR058W | 36085 | BIO3 | biotin biosynthesis | 3440 | 1.022 | 4 | 16 | 0 | -0.097 | 0.032 |
| YLR433C | 36036 | CNA1 | cell wall organization and bioge | 3441 | 1.022 | 4 | 16 | 0 | -0.019 | 0.027 |
| YFR030W | 37085 | MET10 | sulfate assimilation | 3442 | 1.022 | 4 | 8 | 0 | -0.086 | 0.022 |
| YOL031C | 31722 | SIL1 | SRP-dependent cotranslational | 3443 | 1.022 | 4 | 16 | 0 | 0.014 | 0.031 |
| YHL036W | 30927 | MUP3 | amino acid transport | 3444 | 1.022 | 4 | 16 | 0 | 0.040 | 0.018 |
| YEL012W | 36577 | UBC8 | protein monoubiquitination* | 3445 | 1.022 | 4 | 16 | 0 | 0.036 | 0.060 |
| YMR156C | 30738 | TPP1 | biological_process unknown | 3446 | 1.022 | 4 | 16 | 0 | 0.040 | 0.022 |
| YPR091C | 37403 | | biological_process unknown | 3447 | 1.022 | 4 | 16 | 0 | 0.005 | 0.024 |
| YLL039C | 31527 | UBI4 | response to stress* | 3448 | 1.022 | 4 | 16 | 0 | -0.005 | 0.046 |
| YOR366W | 31663 | | | 3449 | 1.022 | 4 | 16 | 0 | 0.082 | 0.053 |
| YLL060C | 31548 | GTT2 | glutathione metabolism | 3450 | 1.022 | 4 | 15 | 0 | 0.052 | 0.056 |
| YPL141C | 32111 | | biological_process unknown | 3451 | 1.022 | 4 | 16 | 0 | 0.024 | 0.015 |
| YHR209W | 32903 | | biological_process unknown | 3452 | 1.022 | 4 | 16 | 0 | 0.082 | 0.034 |
| YOR034C | 31810 | AKR2 | biological_process unknown | 3453 | 1.022 | 4 | 16 | 0 | -0.057 | 0.108 |
| YPL166W | 32086 | | biological_process unknown | 3454 | 1.022 | 4 | 16 | 0 | 0.024 | 0.009 |
| YNL265C | 31179 | IST1 | biological_process unknown | 3455 | 1.022 | 4 | 16 | 0 | -0.019 | 0.035 |
| YNL068C | 37216 | FKH2 | pseudohyphal growth* | 3456 | 1.022 | 4 | 8 | 0 | -0.041 | 0.047 |
| YNR068C | 36095 | | biological_process unknown | 3457 | 1.022 | 4 | 16 | 0 | -0.051 | 0.065 |
| YPL224C | 36767 | MMT2 | iron ion homeostasis | 3458 | 1.023 | 4 | 16 | 0 | 0.002 | 0.036 |
| YFR043C | 35857 | | biological_process unknown | 3459 | 1.023 | 4 | 16 | 0 | -0.009 | 0.022 |
| YEL048C | 30289 | | biological_process unknown | 3460 | 1.023 | 4 | 16 | 0 | 0.078 | 0.041 |
| YJL098W | 31325 | SAP185 | G1/S transition of mitotic cell cy | 3461 | 1.023 | 4 | 12 | 0 | -0.018 | 0.028 |
| YPL144W | 32108 | | biological_process unknown | 3462 | 1.023 | 4 | 16 | 0 | 0.075 | 0.047 |
| YBR007C | 33142 | | biological_process unknown | 3463 | 1.023 | 4 | 16 | 0 | 0.006 | 0.068 |
| YLR407W | 35316 | | biological_process unknown | 3464 | 1.023 | 4 | 8 | 0 | -0.092 | 0.016 |
| YIL027C | 31420 | KRE27 | biological_process unknown | 3465 | 1.023 | 4 | 15 | 0 | 0.009 | 0.026 |
| YBR235W | 33375 | | biological_process unknown | 3466 | 1.023 | 4 | 16 | 0 | 0.005 | 0.015 |
| YPL084W | 32744 | BRO1 | ubiquitin-dependent protein cata | 3467 | 1.023 | 4 | 8 | 0 | -0.024 | 0.003 |
| YOR325W | 31622 | | | 3468 | 1.023 | 4 | 16 | 0 | 0.004 | 0.038 |
| YOR015W | 31791 | | | 3469 | 1.023 | 4 | 16 | 0 | 0.025 | 0.061 |
| YML117W | 36518 | | | 3470 | 1.023 | 4 | 16 | 0 | 0.023 | 0.080 |
| YKL008C | 34857 | LAC1 | ceramide biosynthesis* | 3471 | 1.023 | 4 | 16 | 0 | 0.040 | 0.024 |
| YNL154C | 32058 | YCK2 | protein amino acid phosphorylat | 3472 | 1.023 | 4 | 16 | 0 | 0.078 | 0.033 |
| YAL058C- | 36869 | | | 3473 | 1.023 | 4 | 16 | 0 | 0.003 | 0.058 |
| YHR136C | 31964 | SPL2 | response to temperature | 3474 | 1.023 | 4 | 16 | 0 | 0.062 | 0.063 |
| YNL004W | 35332 | HRB1 | protein-nucleus import | 3475 | 1.023 | 4 | 16 | 0 | 0.022 | 0.036 |
| YLR361C | 36713 | DCR2 | biological_process unknown | 3476 | 1.023 | 4 | 16 | 0 | 0.003 | 0.031 |
| YBR003W | 33138 | COQ1 | ubiquinone metabolism | 3477 | 1.023 | 4 | 8 | 0 | -0.114 | 0.013 |
| YML066C | 37113 | SMA2 | spore wall assembly (sensu Sac | 3478 | 1.023 | 4 | 16 | 0 | 0.014 | 0.049 |
| YNL009W | 35337 | IDP3 | fatty acid beta-oxidation* | 3479 | 1.023 | 4 | 15 | 0 | 0.058 | 0.012 |
| YKR094C | 37103 | RPL40B | protein biosynthesis* | 3480 | 1.023 | 4 | 16 | 0 | -0.030 | 0.025 |
| YHR047C | 31874 | AAP1' | biological_process unknown | 3481 | 1.024 | 4 | 16 | 0 | 0.034 | 0.037 |
| YOL082W | 31773 | ATG19 | protein-vacuolar targeting | 3482 | 1.024 | 4 | 16 | 0 | 0.052 | 0.027 |
| YML131W | 36532 | | biological_process unknown | 3483 | 1.024 | 4 | 16 | 0 | 0.005 | 0.053 |

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|---|---|---|---|---|---|---|---|---|---|---|
| YHL030W | 30933 | ECM29 | cell wall organization and bioge | 3484 | 1.024 | 4 | 16 | 0 | 0.046 | 0.023 |
| YLR063W | 32674 | | biological_process unknown | 3485 | 1.024 | 4 | 12 | 0 | 0.037 | 0.054 |
| YLR037C | 36435 | DAN2 | biological_process unknown | 3486 | 1.024 | 4 | 16 | 0 | 0.078 | 0.050 |
| YLR057W | 32668 | | biological_process unknown | 3487 | 1.024 | 4 | 16 | 0 | 0.069 | 0.021 |
| YMR052C | 36185 | | | 3488 | 1.024 | 4 | 16 | 0 | 0.122 | 0.032 |
| YJL017W | 36785 | | biological_process unknown | 3489 | 1.024 | 4 | 16 | 0 | -0.018 | 0.029 |
| YHR097C | 31925 | | biological_process unknown | 3490 | 1.024 | 4 | 16 | 0 | 0.060 | 0.049 |
| YER034W | 30166 | | biological_process unknown | 3491 | 1.024 | 4 | 16 | 0 | 0.026 | 0.038 |
| YOR088W | 31864 | | | 3492 | 1.024 | 4 | 16 | 0 | 0.016 | 0.014 |
| YMR265C | 30851 | | biological_process unknown | 3493 | 1.024 | 4 | 12 | 0 | 0.004 | 0.014 |
| YPL195W | 31097 | APL5 | Golgi to vacuole transport | 3494 | 1.024 | 4 | 16 | 0 | 0.026 | 0.029 |
| YHR123W | 31951 | EPT1 | phosphatidylethanolamine biosy | 3495 | 1.024 | 4 | 16 | 0 | 0.075 | 0.023 |
| YGR121C | 34751 | MEP1 | ammonium transport | 3496 | 1.024 | 4 | 16 | 0 | 0.040 | 0.035 |
| YPR185W | 35600 | ATG13 | protein-vacuolar targeting* | 3497 | 1.024 | 4 | 16 | 0 | 0.006 | 0.039 |
| YPR197C | 35612 | | | 3498 | 1.025 | 4 | 16 | 0 | -0.046 | 0.038 |
| YGL080W | 34447 | | biological_process unknown | 3499 | 1.025 | 4 | 16 | 0 | 0.034 | 0.036 |
| YDR406W | 34242 | PDR15 | transport | 3500 | 1.025 | 4 | 16 | 0 | 0.068 | 0.046 |
| YLR417W | 35325 | VPS36 | protein-vacuolar targeting* | 3501 | 1.025 | 4 | 16 | 0 | 0.038 | 0.027 |
| YDR058C | 36967 | TGL2 | lipid metabolism | 3502 | 1.025 | 4 | 15 | 0 | 0.057 | 0.029 |
| YJR026W | 36824 | | | 3503 | 1.025 | 4 | 16 | 0 | 0.017 | 0.035 |
| YGR270W | 35922 | YTA7 | protein catabolism | 3504 | 1.025 | 4 | 16 | 0 | -0.066 | 0.086 |
| YML059C | 30511 | | biological_process unknown | 3505 | 1.025 | 4 | 8 | 0 | 0.040 | 0.001 |
| YLL024C | 31512 | SSA2 | protein folding* | 3506 | 1.025 | 4 | 16 | 0 | 0.040 | 0.031 |
| YBR169C | 37167 | SSE2 | protein folding | 3507 | 1.025 | 4 | 16 | 0 | 0.038 | 0.022 |
| YFR033C | 35847 | QCR6 | aerobic respiration* | 3508 | 1.025 | 4 | 16 | 0 | -0.041 | 0.033 |
| YDR042C | 33978 | | biological_process unknown | 3509 | 1.025 | 4 | 16 | 0 | 0.003 | 0.046 |
| YDR251W | 33610 | PAM1 | pseudohyphal growth | 3510 | 1.025 | 4 | 16 | 0 | 0.034 | 0.016 |
| YPR013C | 37140 | | biological_process unknown | 3511 | 1.025 | 4 | 16 | 0 | 0.031 | 0.060 |
| YOL106W | 36256 | | | 3512 | 1.025 | 4 | 16 | 0 | -0.020 | 0.023 |
| YCR102C | 35819 | | biological_process unknown | 3513 | 1.025 | 4 | 16 | 0 | 0.017 | 0.079 |
| YDL175C | 33873 | AIR2 | mRNA-nucleus export | 3514 | 1.025 | 4 | 8 | 0 | 0.074 | 0.055 |
| YDR420W | 34256 | HKR1 | cell wall organization and bioge | 3515 | 1.025 | 4 | 16 | 0 | 0.016 | 0.079 |
| YGL124C | 34491 | MON1 | protein-vacuolar targeting* | 3516 | 1.026 | 4 | 15 | 0 | 0.029 | 0.070 |
| YPL002C | 32826 | SNF8 | protein-vacuolar targeting* | 3517 | 1.026 | 4 | 16 | 0 | 0.014 | 0.037 |
| YER101C | 36099 | AST2 | biological_process unknown | 3518 | 1.026 | 4 | 16 | 0 | -0.037 | 0.043 |
| YGL229C | 34596 | SAP4 | G1/S transition of mitotic cell cy | 3519 | 1.026 | 4 | 16 | 0 | 0.012 | 0.097 |
| YLR237W | 36706 | THI7 | thiamin transport | 3520 | 1.026 | 4 | 12 | 0 | 0.120 | 0.113 |
| YDR297W | 33656 | SUR2 | sphingolipid biosynthesis* | 3521 | 1.026 | 4 | 16 | 0 | 0.008 | 0.061 |
| YBR115C | 33254 | LYS2 | lysine biosynthesis, aminoadipic | 3522 | 1.026 | 4 | 16 | 0 | 0.023 | 0.030 |
| YER108C | 36106 | | | 3523 | 1.026 | 4 | 16 | 0 | 0.019 | 0.029 |
| YPL199C | 31093 | | biological_process unknown | 3524 | 1.026 | 4 | 16 | 0 | 0.060 | 0.004 |
| YPL140C | 32112 | MKK2 | protein amino acid phosphorylat | 3525 | 1.026 | 4 | 16 | 0 | 0.037 | 0.026 |
| YMR144W | 30725 | | biological_process unknown | 3526 | 1.026 | 4 | 16 | 0 | 0.029 | 0.049 |
| YBR162W | 33302 | YSY6 | protein secretion | 3527 | 1.026 | 4 | 16 | 0 | 0.038 | 0.036 |
| YJR033C | 36831 | RAV1 | vacuolar acidification | 3528 | 1.026 | 4 | 16 | 0 | 0.027 | 0.017 |
| YMR063W | 36196 | RIM9 | sporulation (sensu Saccharomy | 3529 | 1.026 | 4 | 16 | 0 | 0.006 | 0.103 |
| YOR376W | 31673 | | | 3530 | 1.026 | 4 | 16 | 0 | -0.008 | 0.028 |
| YGR012W | 34642 | | biological_process unknown | 3531 | 1.026 | 4 | 16 | 0 | -0.002 | 0.058 |
| YLR444C | 36048 | | | 3532 | 1.026 | 4 | 16 | 0 | -0.044 | 0.034 |
| YHR106W | 31934 | TRR2 | response to oxidative stress | 3533 | 1.026 | 4 | 14 | 0 | 0.007 | 0.054 |
| YOR379C | 31676 | | | 3534 | 1.026 | 4 | 16 | 0 | 0.022 | 0.042 |
| YAL029C | 30379 | MYO4 | mRNA localization, intracellular | 3535 | 1.026 | 4 | 8 | 0 | 0.074 | 0.021 |

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|---|---|---|---|---|---|---|---|---|---|---|
| YKR032W | 35103 | | | 3536 | 1.027 | 4 | 16 | 0 | -0.040 | 0.011 |
| YOR330C | 31627 | MIP1 | DNA dependent DNA replicatio | 3537 | 1.027 | 4 | 16 | 0 | -0.079 | 0.120 |
| YLL005C | 31493 | SPO75 | sporulation (sensu Saccharomy | 3538 | 1.027 | 4 | 15 | 0 | 0.037 | 0.074 |
| YBR058C | 33195 | UBP14 | protein deubiquitination* | 3539 | 1.027 | 4 | 16 | 0 | 0.052 | 0.025 |
| YJR080C | 36898 | | biological_process unknown | 3540 | 1.027 | 4 | 16 | 0 | -0.038 | 0.080 |
| YGL158W | 34525 | RCK1 | protein amino acid phosphorylat | 3541 | 1.027 | 4 | 16 | 0 | 0.010 | 0.029 |
| YOL071W | 31763 | EMI5 | biological_process unknown | 3542 | 1.027 | 4 | 16 | 0 | -0.103 | 0.075 |
| YKL098W | 34948 | | biological_process unknown | 3543 | 1.027 | 4 | 16 | 0 | 0.025 | 0.047 |
| YOR150W | 32406 | MRPL23 | protein biosynthesis* | 3544 | 1.027 | 4 | 15 | 0 | 0.047 | 0.123 |
| YIR039C | 35974 | YPS6 | biological_process unknown | 3545 | 1.027 | 4 | 16 | 0 | 0.004 | 0.018 |
| YLR431C | 36034 | ATG23 | biological_process unknown | 3546 | 1.027 | 4 | 16 | 0 | 0.025 | 0.033 |
| YML027W | 36721 | YOX1 | negative regulation of transcript | 3547 | 1.027 | 4 | 16 | 0 | 0.010 | 0.046 |
| YDR309C | 33668 | GIC2 | establishment of cell polarity (se | 3548 | 1.027 | 4 | 16 | 0 | 0.026 | 0.015 |
| YLR408C | 35317 | | biological_process unknown | 3549 | 1.027 | 4 | 16 | 0 | 0.009 | 0.032 |
| YGR289C | 37294 | MAL11 | alpha-glucoside transport* | 3550 | 1.027 | 4 | 16 | 0 | -0.031 | 0.060 |
| YMR057C | 36191 | | | 3551 | 1.027 | 4 | 8 | 0 | 0.043 | 0.094 |
| YNL130C | 37247 | CPT1 | phosphatidylcholine biosynthesi | 3552 | 1.027 | 4 | 16 | 0 | 0.037 | 0.023 |
| YNL236W | 31976 | SIN4 | transcription from Pol II promote | 3553 | 1.027 | 4 | 12 | 0 | 0.068 | 0.023 |
| YER118C | 36116 | SHO1 | pseudohyphal growth* | 3554 | 1.027 | 4 | 16 | 0 | 0.060 | 0.115 |
| YER143W | 36141 | DDI1 | ubiquitin-dependent protein cata | 3555 | 1.027 | 4 | 16 | 0 | -0.039 | 0.028 |
| YPR149W | 35564 | NCE102 | protein secretion | 3556 | 1.028 | 4 | 16 | 0 | -0.015 | 0.068 |
| YDR318W | 33677 | MCM21 | chromosome segregation | 3557 | 1.028 | 4 | 8 | 0 | 0.095 | 0.001 |
| YMR027W | 30602 | | biological_process unknown | 3558 | 1.028 | 4 | 8 | 0 | 0.044 | 0.067 |
| YOR083W | 31859 | WHI5 | regulation of cell size | 3559 | 1.028 | 4 | 8 | 0 | 0.025 | 0.011 |
| YPR154W | 35569 | PIN3 | actin cytoskeleton organization | 3560 | 1.028 | 4 | 16 | 0 | -0.071 | 0.066 |
| YMR042W | 30618 | ARG80 | positive regulation of transcripti | 3561 | 1.028 | 4 | 8 | 0 | -0.029 | 0.003 |
| YNL296W | 31147 | | | 3562 | 1.028 | 4 | 12 | 0 | -0.089 | 0.028 |
| YPL017C | 37339 | | biological_process unknown | 3563 | 1.028 | 4 | 16 | 0 | -0.083 | 0.028 |
| YDR193W | 33552 | | | 3564 | 1.028 | 4 | 16 | 0 | 0.058 | 0.013 |
| YPL116W | 32136 | HOS3 | histone deacetylation | 3565 | 1.028 | 4 | 16 | 0 | 0.032 | 0.039 |
| YNL160W | 32052 | YGP1 | response to stress* | 3566 | 1.028 | 4 | 16 | 0 | 0.101 | 0.062 |
| YLR174W | 34123 | IDP2 | glutamate biosynthesis* | 3567 | 1.028 | 4 | 16 | 0 | 0.040 | 0.045 |
| YMR091C | 36226 | NPL6 | protein-nucleus import | 3568 | 1.028 | 4 | 12 | 0 | -0.003 | 0.003 |
| YGL223C | 34589 | COG1 | intra-Golgi transport* | 3569 | 1.028 | 4 | 11 | 0 | 0.030 | 0.003 |
| YPL198W | 31094 | RPL7B | protein biosynthesis | 3570 | 1.028 | 4 | 16 | 0 | 0.035 | 0.040 |
| YLR043C | 32654 | TRX1 | response to oxidative stress* | 3571 | 1.028 | 4 | 16 | 0 | 0.080 | 0.035 |
| YPR003C | 32830 | | biological_process unknown | 3572 | 1.028 | 4 | 16 | 0 | 0.038 | 0.034 |
| YPL008W | 32820 | CHL1 | chromosome segregation | 3573 | 1.028 | 4 | 16 | 0 | 0.141 | 0.070 |
| YDR326C | 37257 | | biological_process unknown | 3574 | 1.028 | 4 | 16 | 0 | -0.021 | 0.019 |
| YDR272W | 33631 | GLO2 | carbohydrate metabolism | 3575 | 1.028 | 4 | 16 | 0 | 0.012 | 0.070 |
| YPR053C | 35472 | | | 3576 | 1.028 | 4 | 16 | 0 | 0.027 | 0.049 |
| YHR153C | 32847 | SPO16 | sporulation (sensu Saccharomy | 3577 | 1.028 | 4 | 16 | 0 | 0.063 | 0.020 |
| YCR077C | 35797 | PAT1 | chromosome segregation* | 3578 | 1.029 | 4 | 14 | 0 | -0.024 | 0.073 |
| YBL032W | 33058 | HEK2 | telomerase-dependent telomere | 3579 | 1.029 | 4 | 16 | 0 | 0.036 | 0.052 |
| YAR047C | 30431 | | | 3580 | 1.029 | 4 | 8 | 0 | 0.081 | 0.080 |
| YGL033W | 34401 | HOP2 | synapsis | 3581 | 1.029 | 4 | 8 | 0 | 0.040 | 0.014 |
| YPL072W | 32755 | UBP16 | protein deubiquitination | 3582 | 1.029 | 4 | 16 | 0 | 0.074 | 0.023 |
| YBL081W | 33107 | | biological_process unknown | 3583 | 1.029 | 4 | 16 | 0 | 0.077 | 0.012 |
| YBR103W | 33242 | SIF2 | chromatin silencing at telomere | 3584 | 1.029 | 4 | 16 | 0 | -0.033 | 0.010 |
| YMR159C | 30742 | ATG16 | autophagy | 3585 | 1.029 | 4 | 16 | 0 | 0.063 | 0.065 |
| YDL104C | 33801 | QRI7 | biological_process unknown | 3586 | 1.029 | 4 | 16 | 0 | 0.047 | 0.051 |
| YLR168C | 34117 | | biological_process unknown | 3587 | 1.029 | 4 | 15 | 0 | 0.046 | 0.047 |

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|---|---|---|---|---|---|---|---|---|---|---|
| YPL200W | 31092 | CSM4 | meiotic chromosome segregatic | 3588 | 1.029 | 4 | 16 | 0 | 0.074 | 0.046 |
| YNL099C | 37235 | OCA1 | response to oxidative stress | 3589 | 1.029 | 4 | 16 | 0 | 0.050 | 0.031 |
| YDR022C | 33961 | CIS1 | regulation of CDK activity | 3590 | 1.029 | 4 | 16 | 0 | -0.021 | 0.029 |
| YPR114W | 35530 | | biological_process unknown | 3591 | 1.029 | 4 | 8 | 0 | -0.026 | 0.042 |
| YBR172C | 33312 | SMY2 | cytoskeleton organization and b | 3592 | 1.029 | 4 | 16 | 0 | 0.051 | 0.036 |
| YNR060W | 36087 | FRE4 | iron-siderochrome transport | 3593 | 1.029 | 4 | 16 | 0 | -0.014 | 0.042 |
| YJR102C | 32580 | VPS25 | protein-vacuolar targeting* | 3594 | 1.029 | 4 | 16 | 0 | -0.007 | 0.035 |
| YLR309C | 35217 | IMH1 | vesicle-mediated transport | 3595 | 1.029 | 4 | 15 | 0 | -0.094 | 0.037 |
| YBR099C | 33238 | | | 3596 | 1.030 | 4 | 16 | 0 | -0.046 | 0.029 |
| YKR027W | 37044 | | biological_process unknown | 3597 | 1.030 | 4 | 16 | 0 | -0.069 | 0.039 |
| YOL008W | 31699 | | biological_process unknown | 3598 | 1.030 | 3 | 6 | 0 | | |
| YPL179W | 32073 | PPQ1 | protein amino acid dephosphory | 3599 | 1.030 | 4 | 16 | 0 | 0.038 | 0.055 |
| YHR132C | 31960 | ECM14 | cell wall organization and bioge | 3600 | 1.030 | 4 | 16 | 0 | 0.019 | 0.055 |
| YDR202C | 36970 | RAV2 | vacuolar acidification | 3601 | 1.030 | 4 | 16 | 0 | 0.048 | 0.106 |
| YPL110C | 32142 | | biological_process unknown | 3602 | 1.030 | 4 | 16 | 0 | 0.038 | 0.047 |
| YOL155C | 37322 | | cell wall organization and bioge | 3603 | 1.030 | 4 | 16 | 0 | -0.032 | 0.042 |
| YER093C- | 36399 | | biological_process unknown | 3604 | 1.030 | 4 | 16 | 0 | 0.004 | 0.031 |
| YJL197W | 31228 | UBP12 | biological_process unknown | 3605 | 1.030 | 4 | 16 | 0 | 0.056 | 0.034 |
| YLL016W | 31504 | SDC25 | RAS protein signal transduction | 3606 | 1.030 | 4 | 16 | 0 | 0.023 | 0.062 |
| YJR036C | 36834 | HUL4 | protein monoubiquitination* | 3607 | 1.030 | 4 | 16 | 0 | 0.008 | 0.016 |
| YFL015C | 35633 | | | 3608 | 1.030 | 4 | 16 | 0 | 0.040 | 0.017 |
| YOR375C | 31672 | GDH1 | glutamate biosynthesis, using g | 3609 | 1.030 | 4 | 16 | 0 | -0.005 | 0.042 |
| YLR194C | 34143 | | biological_process unknown | 3610 | 1.030 | 4 | 16 | 0 | 0.071 | 0.006 |
| YAL066W | 30340 | | | 3611 | 1.030 | 4 | 8 | 0 | 0.018 | 0.003 |
| YGL235W | 34602 | | | 3612 | 1.030 | 4 | 16 | 0 | 0.016 | 0.059 |
| YOL046C | 31737 | | | 3613 | 1.030 | 4 | 12 | 0 | -0.034 | 0.164 |
| YER177W | 36173 | BMH1 | pseudohyphal growth* | 3614 | 1.030 | 4 | 16 | 0 | 0.080 | 0.051 |
| YDR073W | 34008 | SNF11 | chromatin modeling | 3615 | 1.030 | 4 | 15 | 0 | 0.036 | 0.092 |
| YJL048C | 31375 | | biological_process unknown | 3616 | 1.030 | 4 | 16 | 0 | 0.043 | 0.038 |
| YJL093C | 31330 | TOK1 | potassium ion homeostasis | 3617 | 1.030 | 4 | 15 | 0 | 0.113 | 0.022 |
| YPL065W | 32763 | VPS28 | protein-vacuolar targeting* | 3618 | 1.031 | 4 | 16 | 0 | -0.032 | 0.055 |
| YDR183W | 33542 | PLP1 | positive regulation of transcripti | 3619 | 1.031 | 4 | 16 | 0 | -0.011 | 0.024 |
| YMR154C | 36643 | RIM13 | protein processing | 3620 | 1.031 | 4 | 15 | 0 | 0.000 | 0.010 |
| YBL095W | 33121 | | biological_process unknown | 3621 | 1.031 | 4 | 12 | 0 | 0.053 | 0.016 |
| YOR059C | 31835 | | biological_process unknown | 3622 | 1.031 | 4 | 16 | 0 | 0.024 | 0.034 |
| YLR299W | 35209 | ECM38 | cell wall organization and bioge | 3623 | 1.031 | 4 | 16 | 0 | 0.012 | 0.036 |
| YOR320C | 31617 | GNT1 | N-linked glycosylation | 3624 | 1.031 | 4 | 16 | 0 | 0.009 | 0.006 |
| YLL001W | 31489 | DNM1 | mitochondrial fission | 3625 | 1.031 | 4 | 16 | 0 | -0.047 | 0.029 |
| YPR118W | 37405 | | biological_process unknown | 3626 | 1.031 | 4 | 16 | 0 | 0.025 | 0.052 |
| YFR011C | 37206 | | biological_process unknown | 3627 | 1.031 | 4 | 16 | 0 | -0.063 | 0.032 |
| YLR344W | 35253 | RPL26A | protein biosynthesis | 3628 | 1.031 | 4 | 16 | 0 | 0.022 | 0.044 |
| YDR219C | 33578 | | ubiquitin-dependent protein cata | 3629 | 1.031 | 4 | 16 | 0 | 0.024 | 0.007 |
| YKR070W | 35986 | | biological_process unknown | 3630 | 1.031 | 4 | 16 | 0 | 0.025 | 0.095 |
| YGR281W | 35933 | YOR1 | transport* | 3631 | 1.032 | 4 | 8 | 0 | -0.037 | 0.029 |
| YML115C | 37116 | VAN1 | N-linked glycosylation | 3632 | 1.032 | 4 | 8 | 0 | 0.019 | 0.050 |
| YLL023C | 31511 | | biological_process unknown | 3633 | 1.032 | 4 | 8 | 0 | 0.063 | 0.033 |
| YML080W | 30490 | DUS1 | tRNA modification | 3634 | 1.032 | 4 | 8 | 0 | 0.019 | 0.001 |
| YPL245W | 31047 | | biological_process unknown | 3635 | 1.032 | 4 | 16 | 0 | -0.055 | 0.046 |
| YHR185C | 36634 | PFS1 | spore wall assembly (sensu Fur | 3636 | 1.032 | 4 | 16 | 0 | 0.009 | 0.069 |
| YBR186W | 33326 | PCH2 | regulation of meiosis | 3637 | 1.032 | 4 | 16 | 0 | 0.068 | 0.016 |
| YPL091W | 32737 | GLR1 | response to oxidative stress | 3638 | 1.032 | 4 | 8 | 0 | -0.003 | 0.024 |
| YOR041C | 31817 | | | 3639 | 1.032 | 4 | 15 | 0 | 0.006 | 0.028 |

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|---|---|---|---|---|---|---|---|---|---|---|
| YJR124C | 36927 | | biological_process unknown | 3640 | 1.032 | 4 | 16 | 0 | 0.051 | 0.051 |
| YPL194W | 37396 | DDC1 | meiosis* | 3641 | 1.032 | 4 | 16 | 0 | 0.042 | 0.012 |
| YPL114W | 32138 | | | 3642 | 1.032 | 4 | 16 | 0 | 0.022 | 0.036 |
| YPL049C | 32779 | DIG1 | invasive growth | 3643 | 1.032 | 4 | 12 | 0 | 0.075 | 0.017 |
| YNL105W | 37238 | | | 3644 | 1.032 | 4 | 16 | 0 | 0.028 | 0.024 |
| YDR316W | 33675 | | biological_process unknown | 3645 | 1.032 | 4 | 16 | 0 | -0.013 | 0.037 |
| YOR313C | 31610 | SPS4 | meiosis* | 3646 | 1.032 | 4 | 16 | 0 | 0.036 | 0.010 |
| YNR075W | 36234 | COS10 | endocytosis | 3647 | 1.032 | 4 | 16 | 0 | 0.055 | 0.047 |
| YDR465C | 34299 | RMT2 | peptidyl-arginine methylation | 3648 | 1.032 | 4 | 12 | 0 | 0.049 | 0.093 |
| YPL189W | 36764 | GUP2 | biological_process unknown | 3649 | 1.032 | 4 | 16 | 0 | 0.045 | 0.034 |
| YPL149W | 32103 | ATG5 | protein-vacuolar targeting* | 3650 | 1.032 | 4 | 16 | 0 | 0.063 | 0.029 |
| YGL215W | 34581 | CLG1 | cell cycle | 3651 | 1.033 | 4 | 15 | 0 | -0.070 | 0.055 |
| YER119C | 36117 | AVT6 | amino acid transport | 3652 | 1.033 | 4 | 16 | 0 | 0.036 | 0.061 |
| YLR207W | 34156 | HRD3 | ER-associated protein catabolis | 3653 | 1.033 | 4 | 16 | 0 | 0.004 | 0.013 |
| YOL035C | 31726 | | | 3654 | 1.033 | 4 | 15 | 0 | 0.087 | 0.084 |
| YLL063C | 31551 | AYT1 | secondary metabolism | 3655 | 1.033 | 4 | 16 | 0 | 0.061 | 0.034 |
| YJR083C | 32560 | ACF4 | biological_process unknown | 3656 | 1.033 | 4 | 16 | 0 | -0.067 | 0.027 |
| YLL048C | 36425 | YBT1 | bile acid transport | 3657 | 1.033 | 4 | 16 | 0 | 0.056 | 0.034 |
| YMR252C | 30838 | | biological_process unknown | 3658 | 1.033 | 4 | 16 | 0 | 0.049 | 0.012 |
| YHR204W | 32898 | MNL1 | ER-associated protein catabolis | 3659 | 1.033 | 4 | 16 | 0 | -0.025 | 0.031 |
| YIL161W | 32320 | | biological_process unknown | 3660 | 1.033 | 4 | 16 | 0 | 0.080 | 0.012 |
| YAL002W | 30405 | VPS8 | late endosome to vacuole trans | 3661 | 1.033 | 4 | 8 | 0 | -0.022 | 0.047 |
| YMR247C | 30834 | | biological_process unknown | 3662 | 1.033 | 4 | 16 | 0 | 0.049 | 0.018 |
| YNL020C | 35346 | ARK1 | protein amino acid phosphoryla | 3663 | 1.033 | 4 | 16 | 0 | -0.019 | 0.044 |
| YBR025C | 33162 | | biological_process unknown | 3664 | 1.033 | 4 | 15 | 0 | 0.019 | 0.106 |
| YGL213C | 34579 | SKI8 | mRNA catabolism | 3665 | 1.033 | 4 | 15 | 0 | -0.029 | 0.046 |
| YIL032C | 31425 | | | 3666 | 1.033 | 4 | 11 | 0 | 0.075 | 0.008 |
| YOR307C | 31604 | SLY41 | ER to Golgi transport | 3667 | 1.033 | 4 | 16 | 0 | 0.002 | 0.061 |
| YDL101C | 33798 | DUN1 | protein amino acid phosphoryla | 3668 | 1.033 | 4 | 15 | 0 | 0.031 | 0.058 |
| YER132C | 36131 | PMD1 | sporulation | 3669 | 1.033 | 4 | 16 | 0 | 0.080 | 0.039 |
| YPL030W | 32798 | | biological_process unknown | 3670 | 1.033 | 4 | 16 | 0 | 0.129 | 0.026 |
| YML006C | 30570 | GIS4 | intracellular signaling cascade | 3671 | 1.033 | 4 | 8 | 0 | 0.031 | 0.049 |
| YLR172C | 34121 | DPH5 | peptidyl-diphthamide biosynthes | 3672 | 1.033 | 4 | 16 | 0 | 0.067 | 0.107 |
| YJL209W | 31216 | CBP1 | aerobic respiration* | 3673 | 1.034 | 4 | 16 | 0 | -0.074 | 0.015 |
| YGR064W | 34694 | | | 3674 | 1.034 | 4 | 16 | 0 | 0.009 | 0.071 |
| YGL243W | 34610 | TAD1 | tRNA modification | 3675 | 1.034 | 4 | 16 | 0 | 0.038 | 0.058 |
| YDR329C | 33688 | PEX3 | peroxisome organization and bi | 3676 | 1.034 | 4 | 16 | 0 | 0.021 | 0.053 |
| YLR239C | 35148 | LIP2 | protein-lipoylation | 3677 | 1.034 | 4 | 8 | 0 | 0.009 | 0.035 |
| YDR518W | 34352 | EUG1 | protein folding | 3678 | 1.034 | 4 | 16 | 0 | 0.109 | 0.181 |
| YAL037W | 30369 | | biological_process unknown | 3679 | 1.034 | 4 | 8 | 0 | 0.050 | 0.009 |
| YDR368W | 34204 | YPR1 | arabinose metabolism* | 3680 | 1.034 | 4 | 16 | 0 | 0.054 | 0.068 |
| YAL012W | 36865 | CYS3 | sulfur amino acid metabolism* | 3681 | 1.034 | 4 | 12 | 0 | 0.072 | 0.027 |
| YNL291C | 31153 | MID1 | calcium ion transport | 3682 | 1.034 | 4 | 16 | 0 | -0.034 | 0.014 |
| YGL227W | 34594 | VID30 | regulation of nitrogen utilization | 3683 | 1.034 | 4 | 8 | 0 | 0.006 | 0.008 |
| YJL204C | 31221 | RCY1 | endocytosis | 3684 | 1.034 | 4 | 16 | 0 | 0.024 | 0.020 |
| YNL155W | 32057 | | biological_process unknown | 3685 | 1.034 | 4 | 16 | 0 | 0.041 | 0.044 |
| YPL047W | 32781 | | biological_process unknown | 3686 | 1.034 | 4 | 8 | 0 | -0.023 | 0.018 |
| YBR145W | 33284 | ADH5 | alcohol metabolism | 3687 | 1.034 | 4 | 8 | 0 | -0.196 | 0.030 |
| YER030W | 30162 | | biological_process unknown | 3688 | 1.034 | 4 | 12 | 0 | 0.028 | 0.029 |
| YOL079W | 31770 | | | 3689 | 1.034 | 4 | 16 | 0 | 0.075 | 0.023 |
| YIL006W | 31398 | | transport | 3690 | 1.034 | 4 | 16 | 0 | 0.072 | 0.015 |
| YOR130C | 32386 | ORT1 | nuclear migration (sensu Sacch | 3691 | 1.034 | 4 | 16 | 0 | -0.017 | 0.048 |

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|---|---|---|---|---|---|---|---|---|---|---|
| YDR154C | 33512 | | | 3692 | 1.034 | 4 | 8 | 0 | 0.072 | 0.020 |
| YER048C | 30183 | CAJ1 | biological_process unknown | 3693 | 1.034 | 4 | 16 | 0 | 0.021 | 0.053 |
| YDR269C | 33628 | | | 3694 | 1.034 | 4 | 16 | 0 | -0.034 | 0.018 |
| YOR298W | 31594 | | phospholipid biosynthesis | 3695 | 1.035 | 4 | 16 | 0 | -0.049 | 0.022 |
| YLR367W | 35276 | RPS22B | protein biosynthesis | 3696 | 1.035 | 4 | 16 | 0 | 0.018 | 0.014 |
| YOL061W | 31753 | PRS5 | histidine biosynthesis* | 3697 | 1.035 | 4 | 16 | 0 | 0.004 | 0.020 |
| YOR275C | 37333 | RIM20 | proteolysis and peptidolysis* | 3698 | 1.035 | 4 | 16 | 0 | -0.038 | 0.043 |
| YOR037W | 31813 | CYC2 | mitochondrial intermembrane sp | 3699 | 1.035 | 4 | 12 | 0 | 0.022 | 0.030 |
| YHL014C | 30949 | YLF2 | biological_process unknown | 3700 | 1.035 | 4 | 16 | 0 | 0.049 | 0.014 |
| YIL043C | 31436 | CBR1 | electron transport | 3701 | 1.035 | 4 | 16 | 0 | -0.037 | 0.059 |
| YKR096W | 37105 | | biological_process unknown | 3702 | 1.035 | 4 | 16 | 0 | -0.005 | 0.060 |
| YPL115C | 32137 | BEM3 | establishment of cell polarity (se | 3703 | 1.035 | 4 | 16 | 0 | -0.012 | 0.025 |
| YDR314C | 33673 | | biological_process unknown | 3704 | 1.035 | 4 | 16 | 0 | 0.007 | 0.017 |
| YAL004W | 30402 | | | 3705 | 1.035 | 4 | 8 | 0 | 0.038 | 0.006 |
| YHR207C | 32901 | SET5 | biological_process unknown | 3706 | 1.035 | 4 | 16 | 0 | 0.025 | 0.033 |
| YEL057C | 30298 | | biological_process unknown | 3707 | 1.035 | 4 | 15 | 0 | 0.140 | 0.101 |
| YNL217W | 31995 | | biological_process unknown | 3708 | 1.035 | 4 | 16 | 0 | 0.047 | 0.030 |
| YFR008W | 35687 | FAR7 | cell cycle arrest in response to p | 3709 | 1.035 | 4 | 16 | 0 | 0.074 | 0.042 |
| YGL261C | 34628 | | biological_process unknown | 3710 | 1.035 | 4 | 12 | 0 | 0.037 | 0.056 |
| YPL156C | 32096 | PRM4 | conjugation with cellular fusion | 3711 | 1.035 | 4 | 16 | 0 | 0.032 | 0.043 |
| YBR149W | 33288 | ARA1 | carbohydrate metabolism | 3712 | 1.035 | 4 | 8 | 0 | 0.068 | 0.044 |
| YMR276W | 30862 | DSK2 | spindle pole body duplication (s | 3713 | 1.036 | 4 | 16 | 0 | -0.008 | 0.054 |
| YEL042W | 30283 | GDA1 | protein amino acid glycosylatior | 3714 | 1.036 | 4 | 16 | 0 | -0.006 | 0.025 |
| YFL012W | 37278 | | biological_process unknown | 3715 | 1.036 | 4 | 8 | 0 | -0.053 | 0.062 |
| YDR414C | 34250 | ERD1 | protein-ER retention | 3716 | 1.036 | 4 | 16 | 0 | 0.113 | 0.015 |
| YER130C | 36129 | | biological_process unknown | 3717 | 1.036 | 4 | 16 | 0 | 0.019 | 0.021 |
| YGR028W | 36978 | MSP1 | mitochondrial translocation | 3718 | 1.036 | 4 | 16 | 0 | -0.013 | 0.018 |
| YDR210W | 33569 | | biological_process unknown | 3719 | 1.036 | 4 | 8 | 0 | 0.055 | 0.008 |
| YLR189C | 34138 | ATG26 | sterol metabolism | 3720 | 1.036 | 4 | 16 | 0 | 0.002 | 0.028 |
| YPL137C | 37344 | | biological_process unknown | 3721 | 1.036 | 4 | 16 | 0 | 0.034 | 0.019 |
| YGL014W | 34382 | PUF4 | loss of chromatin silencing durir | 3722 | 1.036 | 4 | 16 | 0 | -0.010 | 0.029 |
| YJR011C | 36809 | | biological_process unknown | 3723 | 1.036 | 4 | 12 | 0 | 0.035 | 0.078 |
| YJL043W | 31380 | | biological_process unknown | 3724 | 1.036 | 4 | 15 | 0 | 0.076 | 0.008 |
| YOL011W | 31702 | PLB3 | phosphoinositide metabolism* | 3725 | 1.036 | 4 | 16 | 0 | 0.044 | 0.035 |
| YOR348C | 31645 | PUT4 | neutral amino acid transport | 3726 | 1.037 | 4 | 16 | 0 | -0.087 | 0.013 |
| YNL269W | 31175 | BSC4 | biological_process unknown | 3727 | 1.037 | 4 | 16 | 0 | -0.020 | 0.042 |
| YFL010W- | 37277 | AUA1 | amino acid transport | 3728 | 1.037 | 4 | 16 | 0 | -0.013 | 0.072 |
| YLR434C | 36037 | | | 3729 | 1.037 | 4 | 16 | 0 | -0.037 | 0.033 |
| YKL077W | 34926 | | biological_process unknown | 3730 | 1.037 | 4 | 8 | 0 | 0.034 | 0.092 |
| YDR438W | 34274 | | biological_process unknown | 3731 | 1.037 | 4 | 16 | 0 | 0.038 | 0.037 |
| YGR135W | 34765 | PRE9 | ubiquitin-dependent protein cata | 3732 | 1.037 | 4 | 15 | 0 | 0.112 | 0.027 |
| YKR066C | 35982 | CCP1 | response to oxidative stress | 3733 | 1.037 | 4 | 16 | 0 | 0.033 | 0.029 |
| YOR380W | 31677 | RDR1 | response to xenobiotic stimulus | 3734 | 1.037 | 4 | 16 | 0 | 0.005 | 0.022 |
| YLR104W | 32715 | | biological_process unknown | 3735 | 1.037 | 4 | 16 | 0 | 0.056 | 0.035 |
| YMR052W | 36186 | FAR3 | cell cycle arrest in response to p | 3736 | 1.038 | 4 | 16 | 0 | 0.068 | 0.082 |
| YKR041W | 37052 | | biological_process unknown | 3737 | 1.038 | 4 | 12 | 0 | 0.005 | 0.056 |
| YER155C | 36152 | BEM2 | cell wall organization and bioge | 3738 | 1.038 | 3 | 6 | 0 | | |
| YDR266C | 33625 | | biological_process unknown | 3739 | 1.038 | 4 | 14 | 0 | 0.160 | 0.100 |
| YDR506C | 37265 | | biological_process unknown | 3740 | 1.038 | 4 | 15 | 0 | 0.014 | 0.013 |
| YHR061C | 31889 | GIC1 | establishment of cell polarity (se | 3741 | 1.038 | 4 | 16 | 0 | 0.027 | 0.062 |
| YER069W | 30209 | ARG5,6 | arginine biosynthesis* | 3742 | 1.038 | 4 | 16 | 0 | 0.066 | 0.058 |
| YHR133C | 31961 | NSG1 | biological_process unknown | 3743 | 1.038 | 4 | 16 | 0 | 0.111 | 0.026 |

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|---|---|---|---|---|---|---|---|---|---|---|
| YJL145W | 31280 | SFH5 | phospholipid transport | 3744 | 1.038 | 4 | 16 | 0 | 0.023 | 0.060 |
| YER045C | 30179 | ACA1 | transcription initiation from Pol I | 3745 | 1.038 | 4 | 16 | 0 | 0.060 | 0.011 |
| YPR140W | 35555 | | phospholipid biosynthesis | 3746 | 1.038 | 4 | 16 | 0 | 0.044 | 0.045 |
| YPL150W | 32102 | | biological_process unknown | 3747 | 1.038 | 4 | 16 | 0 | 0.065 | 0.003 |
| YMR186W | 30771 | HSC82 | response to stress* | 3748 | 1.039 | 4 | 16 | 0 | 0.106 | 0.056 |
| YPL159C | 32093 | PET20 | biological_process unknown | 3749 | 1.039 | 4 | 16 | 0 | 0.019 | 0.051 |
| YHR114W | 31942 | BZZ1 | actin filament organization* | 3750 | 1.039 | 4 | 16 | 0 | 0.006 | 0.030 |
| YDR195W | 33554 | REF2 | mRNA processing | 3751 | 1.039 | 3 | 6 | 0 | | |
| YIL163C | 32322 | | | 3752 | 1.039 | 4 | 16 | 0 | 0.030 | 0.045 |
| YMR238W | 30824 | DFG5 | pseudohyphal growth* | 3753 | 1.039 | 4 | 16 | 0 | 0.003 | 0.029 |
| YAL011W | 30397 | SWC1 | biological_process unknown | 3754 | 1.039 | 4 | 8 | 0 | -0.060 | 0.052 |
| YLR164W | 34113 | | biological_process unknown | 3755 | 1.039 | 4 | 16 | 0 | 0.011 | 0.034 |
| YML119W | 36520 | | biological_process unknown | 3756 | 1.039 | 4 | 15 | 0 | 0.099 | 0.035 |
| YDL188C | 33886 | PPH22 | protein biosynthesis* | 3757 | 1.039 | 4 | 16 | 0 | 0.046 | 0.047 |
| YML009c | 30567 | MRPL39 | protein biosynthesis | 3758 | 1.040 | 4 | 8 | 0 | 0.026 | 0.043 |
| YNL128W | 32948 | TEP1 | spore wall assembly (sensu Sac | 3759 | 1.040 | 4 | 16 | 0 | -0.004 | 0.022 |
| YPL265W | 31027 | DIP5 | amino acid transport | 3760 | 1.040 | 4 | 12 | 0 | -0.046 | 0.028 |
| YER167W | 36163 | BCK2 | G1/S transition of mitotic cell cy | 3761 | 1.040 | 4 | 16 | 0 | 0.107 | 0.110 |
| YJL004C | 36772 | SYS1 | Golgi to endosome transport* | 3762 | 1.040 | 4 | 16 | 0 | 0.044 | 0.027 |
| YHR195W | 32889 | NVJ1 | microautophagy | 3763 | 1.040 | 4 | 16 | 0 | -0.021 | 0.023 |
| YLR221C | 34170 | RSA3 | biological_process unknown | 3764 | 1.040 | 4 | 16 | 0 | 0.008 | 0.065 |
| YPR070W | 35489 | MED1 | transcription from Pol II promote | 3765 | 1.040 | 4 | 16 | 0 | -0.045 | 0.034 |
| YPL246C | 31046 | RBD2 | biological_process unknown | 3766 | 1.040 | 4 | 16 | 0 | 0.075 | 0.031 |
| YJR059W | 36857 | PTK2 | G1/S transition of mitotic cell cy | 3767 | 1.040 | 4 | 16 | 0 | 0.039 | 0.091 |
| YIL089W | 31480 | | biological_process unknown | 3768 | 1.040 | 4 | 16 | 0 | 0.030 | 0.007 |
| YML022W | 36719 | APT1 | AMP biosynthesis | 3769 | 1.040 | 4 | 16 | 0 | 0.077 | 0.038 |
| YHR210C | 32904 | | biological_process unknown | 3770 | 1.040 | 4 | 16 | 0 | 0.053 | 0.037 |
| YDR451C | 34285 | YHP1 | negative regulation of transcript | 3771 | 1.041 | 4 | 15 | 0 | 0.032 | 0.038 |
| YPL181W | 32070 | CTI6 | positive regulation of transcripti | 3772 | 1.041 | 4 | 16 | 0 | -0.029 | 0.061 |
| YDR257C | 33616 | RMS1 | biological_process unknown | 3773 | 1.041 | 4 | 16 | 0 | 0.050 | 0.054 |
| YLR278C | 35187 | | biological_process unknown | 3774 | 1.041 | 4 | 16 | 0 | 0.027 | 0.081 |
| YPR005C | 32832 | HAL1 | transcription initiation from Pol I | 3775 | 1.041 | 4 | 16 | 0 | 0.069 | 0.025 |
| YBR221C | 33361 | PDB1 | pyruvate metabolism | 3776 | 1.041 | 4 | 8 | 0 | -0.032 | 0.008 |
| YHL011C | 36595 | PRS3 | histidine biosynthesis* | 3777 | 1.041 | 3 | 6 | 0 | | |
| YMR025W | 30600 | CSI1 | adaptation to pheromone during | 3778 | 1.041 | 4 | 8 | 0 | 0.037 | 0.048 |
| YLR020C | 31575 | | biological_process unknown | 3779 | 1.041 | 4 | 16 | 0 | 0.040 | 0.052 |
| YHR157W | 32851 | REC104 | meiotic recombination* | 3780 | 1.041 | 4 | 16 | 0 | -0.014 | 0.026 |
| YKR078W | 35994 | | protein transport | 3781 | 1.041 | 4 | 14 | 0 | 0.045 | 0.003 |
| YKR099W | 36015 | BAS1 | transcription from Pol II promote | 3782 | 1.041 | 4 | 8 | 0 | 0.058 | 0.037 |
| YER119C | 36118 | | | 3783 | 1.041 | 4 | 16 | 0 | -0.019 | 0.062 |
| YPR189W | 35604 | SKI3 | mRNA catabolism | 3784 | 1.041 | 4 | 16 | 0 | -0.008 | 0.043 |
| YNL170W | 32041 | | | 3785 | 1.042 | 3 | 12 | 0 | | |
| YOR085W | 31861 | OST3 | protein complex assembly* | 3786 | 1.042 | 4 | 16 | 0 | 0.005 | 0.013 |
| YOR086C | 31862 | | biological_process unknown | 3787 | 1.042 | 4 | 16 | 0 | 0.051 | 0.054 |
| YMR279C | 36449 | | biological_process unknown | 3788 | 1.042 | 4 | 16 | 0 | 0.022 | 0.032 |
| YML107C | 36507 | | biological_process unknown | 3789 | 1.042 | 4 | 16 | 0 | 0.116 | 0.054 |
| YGR283C | 35935 | | biological_process unknown | 3790 | 1.042 | 4 | 16 | 0 | 0.009 | 0.033 |
| YNR059W | 36086 | MNT4 | O-linked glycosylation | 3791 | 1.042 | 4 | 16 | 0 | 0.044 | 0.025 |
| YEL037C | 30278 | RAD23 | nucleotide-excision repair, DNA | 3792 | 1.042 | 4 | 16 | 0 | 0.027 | 0.055 |
| YJL144W | 31281 | | response to dessication | 3793 | 1.043 | 4 | 16 | 0 | 0.005 | 0.053 |
| YMR138W | 36744 | CIN4 | microtubule-based process | 3794 | 1.043 | 4 | 16 | 0 | 0.059 | 0.024 |
| YLL055W | 31543 | | biological_process unknown | 3795 | 1.043 | 4 | 15 | 0 | 0.032 | 0.016 |

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|---|---|---|---|---|---|---|---|---|---|---|
| YBR157C | 33296 | ICS2 | biological_process unknown | 3796 | 1.043 | 4 | 16 | 0 | 0.108 | 0.024 |
| YOL060C | 31752 | MAM3 | mitochondrion organization and | 3797 | 1.043 | 4 | 16 | 0 | 0.073 | 0.043 |
| YPR157W | 35572 | | biological_process unknown | 3798 | 1.043 | 4 | 8 | 0 | -0.017 | 0.040 |
| YJR079W | 32557 | | biological_process unknown | 3799 | 1.043 | 4 | 16 | 0 | 0.084 | 0.070 |
| YNR062C | 36089 | | biological_process unknown | 3800 | 1.043 | 4 | 16 | 0 | 0.008 | 0.049 |
| YKR105C | 36021 | | biological_process unknown | 3801 | 1.043 | 4 | 9 | 0 | -0.027 | 0.028 |
| YKR065C | 35136 | | biological_process unknown | 3802 | 1.043 | 4 | 16 | 0 | -0.024 | 0.019 |
| YEL039C | 30280 | CYC7 | electron transport | 3803 | 1.043 | 4 | 16 | 0 | -0.007 | 0.039 |
| YGL255W | 34622 | ZRT1 | high-affinity zinc ion transport | 3804 | 1.043 | 4 | 15 | 0 | 0.008 | 0.039 |
| YHR001W | 30964 | QCR10 | aerobic respiration* | 3805 | 1.043 | 4 | 16 | 0 | 0.073 | 0.025 |
| YOL045W | 31736 | PSK2 | protein amino acid phosphorylat | 3806 | 1.043 | 4 | 16 | 0 | -0.026 | 0.094 |
| YML028W | 30545 | TSA1 | response to oxidative stress* | 3807 | 1.043 | 4 | 8 | 0 | 0.074 | 0.093 |
| YLR003C | 31558 | | regulation of DNA replication | 3808 | 1.043 | 4 | 16 | 0 | 0.044 | 0.042 |
| YPL101W | 32150 | ELP4 | regulation of transcription from I | 3809 | 1.044 | 4 | 12 | 0 | -0.008 | 0.065 |
| YNL031C | 35357 | HHT2 | chromatin assembly/disassemb | 3810 | 1.044 | 4 | 16 | 0 | 0.006 | 0.041 |
| YOR006C | 31782 | | biological_process unknown | 3811 | 1.044 | 4 | 16 | 0 | 0.078 | 0.022 |
| YIL052C | 31445 | RPL34B | protein biosynthesis | 3812 | 1.044 | 4 | 16 | 0 | -0.015 | 0.020 |
| YOR306C | 31603 | MCH5 | transport | 3813 | 1.044 | 4 | 16 | 0 | 0.076 | 0.029 |
| YIL005W | 31397 | EPS1 | protein-ER retention | 3814 | 1.044 | 4 | 16 | 0 | 0.155 | 0.026 |
| YIL117C | 32276 | PRM5 | conjugation with cellular fusion | 3815 | 1.044 | 4 | 16 | 0 | 0.088 | 0.058 |
| YFL011W | 35627 | HXT10 | hexose transport | 3816 | 1.044 | 4 | 8 | 0 | 0.020 | 0.000 |
| YJR077C | 36897 | MIR1 | phosphate transport | 3817 | 1.044 | 4 | 16 | 0 | 0.066 | 0.082 |
| YML106W | 36506 | URA5 | pyrimidine base biosynthesis | 3818 | 1.044 | 4 | 16 | 0 | 0.071 | 0.048 |
| YNL180C | 32032 | RHO5 | Rho protein signal transduction | 3819 | 1.044 | 4 | 16 | 0 | 0.063 | 0.082 |
| YLR384C | 35293 | IKI3 | regulation of transcription from I | 3820 | 1.045 | 4 | 16 | 0 | 0.154 | 0.053 |
| YKL032C | 34881 | IXR1 | DNA repair | 3821 | 1.045 | 4 | 12 | 0 | 0.015 | 0.130 |
| YGL072C | 34439 | | | 3822 | 1.045 | 4 | 15 | 0 | 0.066 | 0.032 |
| YMR219W | 30805 | ESC1 | chromatin silencing at telomere | 3823 | 1.045 | 4 | 16 | 0 | 0.023 | 0.063 |
| YMR102C | 36542 | | biological_process unknown | 3824 | 1.045 | 4 | 16 | 0 | 0.016 | 0.032 |
| YBR164C | 33304 | ARL1 | protein-vacuolar targeting* | 3825 | 1.045 | 4 | 16 | 0 | 0.015 | 0.020 |
| YGR152C | 34782 | RSR1 | polar budding* | 3826 | 1.045 | 4 | 16 | 0 | 0.086 | 0.019 |
| YGL117W | 34484 | | biological_process unknown | 3827 | 1.045 | 4 | 8 | 0 | 0.050 | 0.056 |
| YBR238C | 33378 | | biological_process unknown | 3828 | 1.045 | 4 | 16 | 0 | -0.064 | 0.095 |
| YKL040C | 34889 | NFU1 | iron ion homeostasis | 3829 | 1.045 | 4 | 16 | 0 | 0.065 | 0.041 |
| YOL059W | 31751 | GPD2 | glycerol metabolism | 3830 | 1.046 | 4 | 15 | 0 | 0.126 | 0.037 |
| YGL046W | 34414 | | | 3831 | 1.046 | 4 | 16 | 0 | 0.073 | 0.123 |
| YJL126W | 31299 | NIT2 | biological_process unknown | 3832 | 1.046 | 4 | 16 | 0 | 0.066 | 0.066 |
| YNL323W | 31121 | LEM3 | cell surface receptor linked sign | 3833 | 1.046 | 4 | 12 | 0 | 0.066 | 0.008 |
| YIL167W | 32326 | | biological_process unknown | 3834 | 1.046 | 4 | 16 | 0 | 0.038 | 0.041 |
| YOR136W | 32392 | IDH2 | tricarboxylic acid cycle* | 3835 | 1.046 | 4 | 12 | 0 | -0.084 | 0.032 |
| YOL083W | 31774 | | biological_process unknown | 3836 | 1.046 | 4 | 16 | 0 | 0.053 | 0.035 |
| YMR092C | 36227 | AIP1 | response to osmotic stress* | 3837 | 1.046 | 4 | 16 | 0 | 0.010 | 0.054 |
| YLR366W | 35275 | | | 3838 | 1.046 | 4 | 16 | 0 | 0.061 | 0.026 |
| YKL191W | 35041 | DPH2 | peptidyl-diphthamide biosynthes | 3839 | 1.046 | 4 | 12 | 0 | 0.114 | 0.101 |
| YPL089C | 32739 | RLM1 | cell wall organization and bioge | 3840 | 1.046 | 4 | 8 | 0 | -0.021 | 0.052 |
| YOL062C | 31754 | APM4 | intracellular protein transport | 3841 | 1.046 | 4 | 16 | 0 | 0.017 | 0.038 |
| YGR001C | 34631 | | biological_process unknown | 3842 | 1.047 | 4 | 16 | 0 | -0.035 | 0.047 |
| YDR072C | 34007 | IPT1 | mannosyl diphosphorylinositol c | 3843 | 1.047 | 4 | 16 | 0 | 0.073 | 0.036 |
| YDR033W | 33972 | MRH1 | biological_process unknown | 3844 | 1.047 | 4 | 12 | 0 | 0.093 | 0.025 |
| YML048W | 30523 | GSF2 | secretory pathway | 3845 | 1.047 | 4 | 8 | 0 | 0.008 | 0.014 |
| YOR140W | 32396 | SFL1 | negative regulation of transcript | 3846 | 1.047 | 4 | 16 | 0 | 0.044 | 0.076 |
| YDR220C | 33579 | | | 3847 | 1.047 | 4 | 16 | 0 | 0.086 | 0.014 |

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|---|---|---|---|---|---|---|---|---|---|---|
| YPR179C | 35594 | PLO1 | biological_process unknown | 3848 | 1.047 | 4 | 16 | 0 | 0.008 | 0.048 |
| YGL244W | 34611 | RTF1 | transcription from Pol II promote | 3849 | 1.047 | 4 | 11 | 0 | 0.133 | 0.032 |
| YOR142W | 32398 | LSC1 | tricarboxylic acid cycle* | 3850 | 1.047 | 4 | 16 | 0 | 0.029 | 0.064 |
| YGR187C | 34817 | HGH1 | biological_process unknown | 3851 | 1.047 | 4 | 16 | 0 | 0.028 | 0.028 |
| YMR121C | 36562 | RPL15B | protein biosynthesis | 3852 | 1.047 | 4 | 16 | 0 | -0.007 | 0.063 |
| YNL294C | 31150 | RIM21 | sporulation (sensu Saccharomy | 3853 | 1.047 | 4 | 16 | 0 | 0.025 | 0.040 |
| YDR276C | 33635 | PMP3 | cation transport | 3854 | 1.048 | 4 | 16 | 0 | 0.034 | 0.063 |
| YBR084C- | 37156 | RPL19A | protein biosynthesis | 3855 | 1.048 | 4 | 14 | 0 | 0.058 | 0.011 |
| YGR132C | 34762 | PHB1 | proteolysis and peptidolysis* | 3856 | 1.048 | 4 | 16 | 0 | 0.039 | 0.030 |
| YER020W | 30152 | GPA2 | pseudohyphal growth* | 3857 | 1.048 | 4 | 16 | 0 | 0.049 | 0.032 |
| YHR163W | 32857 | SOL3 | tRNA processing* | 3858 | 1.048 | 4 | 16 | 0 | 0.017 | 0.036 |
| YLR266C | 35175 | PDR8 | response to stress* | 3859 | 1.048 | 4 | 16 | 0 | 0.003 | 0.031 |
| YLR152C | 34109 | | biological_process unknown | 3860 | 1.048 | 4 | 16 | 0 | 0.074 | 0.052 |
| YPL201C | 31091 | | biological_process unknown | 3861 | 1.049 | 4 | 16 | 0 | 0.102 | 0.020 |
| YGL045W | 34413 | RIM8 | meiosis* | 3862 | 1.049 | 4 | 16 | 0 | -0.034 | 0.025 |
| YGL250W | 34617 | | biological_process unknown | 3863 | 1.049 | 4 | 16 | 0 | 0.037 | 0.046 |
| YLR093C | 32704 | NYV1 | nonselective vesicle fusion | 3864 | 1.049 | 4 | 16 | 0 | 0.087 | 0.086 |
| YML097C | 36495 | VPS9 | protein-vacuolar targeting | 3865 | 1.049 | 4 | 12 | 0 | 0.040 | 0.020 |
| YAL034C | 30374 | FUN19 | biological_process unknown | 3866 | 1.049 | 3 | 6 | 0 | | |
| YNL268W | 37385 | LYP1 | basic amino acid transport | 3867 | 1.049 | 4 | 16 | 0 | -0.025 | 0.059 |
| YLR131C | 34088 | ACE2 | G1-specific transcription in mito | 3868 | 1.049 | 4 | 16 | 0 | 0.229 | 0.041 |
| YLR418C | 35326 | CDC73 | RNA elongation from Pol II pron | 3869 | 1.049 | 4 | 15 | 0 | 0.096 | 0.027 |
| YJL137C | 37003 | GLG2 | glycogen biosynthesis | 3870 | 1.050 | 4 | 16 | 0 | 0.000 | 0.038 |
| YNL292W | 31152 | PUS4 | tRNA modification | 3871 | 1.050 | 4 | 16 | 0 | 0.061 | 0.029 |
| YJR088C | 32565 | | biological_process unknown | 3872 | 1.050 | 4 | 16 | 0 | 0.071 | 0.111 |
| YLR216C | 34165 | CPR6 | protein folding | 3873 | 1.050 | 4 | 8 | 0 | 0.010 | 0.030 |
| YHR104W | 31932 | GRE3 | response to stress* | 3874 | 1.050 | 4 | 16 | 0 | 0.040 | 0.038 |
| YPL148C | 36760 | PPT2 | protein-cofactor linkage | 3875 | 1.050 | 4 | 16 | 0 | 0.040 | 0.034 |
| YPR061C | 35480 | JID1 | biological_process unknown | 3876 | 1.050 | 4 | 16 | 0 | 0.023 | 0.056 |
| YHR161C | 32855 | YAP1801 | endocytosis | 3877 | 1.051 | 4 | 16 | 0 | 0.096 | 0.025 |
| YGL253W | 34620 | HXK2 | fructose metabolism | 3878 | 1.051 | 4 | 16 | 0 | 0.104 | 0.097 |
| YKR042W | 35113 | UTH1 | mitochondrion organization and | 3879 | 1.051 | 4 | 16 | 0 | 0.042 | 0.044 |
| YFL044C | 35665 | | biological_process unknown | 3880 | 1.051 | 4 | 16 | 0 | 0.006 | 0.035 |
| YCR073W | 35794 | SOL2 | tRNA processing | 3881 | 1.051 | 4 | 16 | 0 | 0.029 | 0.052 |
| YLR080W | 32691 | EMP46 | ER to Golgi transport | 3882 | 1.052 | 4 | 16 | 0 | 0.113 | 0.094 |
| YLR456W | 36059 | | biological_process unknown | 3883 | 1.052 | 4 | 16 | 0 | 0.002 | 0.035 |
| YOL039W | 31730 | RPP2A | protein biosynthesis* | 3884 | 1.052 | 4 | 16 | 0 | -0.014 | 0.088 |
| YDL237W | 33934 | | biological_process unknown | 3885 | 1.052 | 4 | 16 | 0 | 0.065 | 0.072 |
| YDL023C | 33719 | | | 3886 | 1.052 | 4 | 16 | 0 | 0.002 | 0.053 |
| YMR310C | 30900 | | biological_process unknown | 3887 | 1.053 | 4 | 16 | 0 | 0.013 | 0.056 |
| YMR004W | 36533 | MVP1 | protein-vacuolar targeting | 3888 | 1.053 | 4 | 11 | 0 | 0.122 | 0.015 |
| YNL016W | 35344 | PUB1 | mRNA catabolism, nonsense-m | 3889 | 1.053 | 4 | 16 | 0 | 0.049 | 0.034 |
| YDR425W | 34261 | SNX41 | protein transport | 3890 | 1.053 | 4 | 16 | 0 | 0.133 | 0.049 |
| YDR271C | 33630 | | | 3891 | 1.053 | 4 | 14 | 0 | 0.031 | 0.030 |
| YHR189W | 32883 | PTH1 | protein biosynthesis | 3892 | 1.053 | 4 | 15 | 0 | 0.112 | 0.033 |
| YNL259C | 31185 | ATX1 | response to oxidative stress* | 3893 | 1.053 | 4 | 16 | 0 | 0.024 | 0.039 |
| YOR327C | 31624 | SNC2 | endocytosis* | 3894 | 1.054 | 4 | 16 | 0 | 0.088 | 0.016 |
| YKR035W | 35981 | DID2 | protein-vacuolar targeting | 3895 | 1.054 | 4 | 16 | 0 | 0.055 | 0.073 |
| YPL226W | 31066 | NEW1 | biological_process unknown | 3896 | 1.054 | 4 | 12 | 0 | -0.141 | 0.217 |
| YOL070C | 31762 | | biological_process unknown | 3897 | 1.054 | 4 | 16 | 0 | 0.062 | 0.027 |
| YGR117C | 36995 | | biological_process unknown | 3898 | 1.055 | 4 | 8 | 0 | 0.066 | 0.026 |
| YLR214W | 34163 | FRE1 | iron ion transport* | 3899 | 1.055 | 4 | 16 | 0 | 0.004 | 0.060 |

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|---|---|---|---|---|---|---|---|---|---|---|
| YOR039W | 31815 | CKB2 | protein amino acid phosphoryla | 3900 | 1.055 | 4 | 16 | 0 | -0.019 | 0.045 |
| YOL075C | 31766 | | transport | 3901 | 1.055 | 4 | 16 | 0 | 0.059 | 0.041 |
| YNL219C | 31993 | ALG9 | protein amino acid glycosylatior | 3902 | 1.055 | 4 | 16 | 0 | 0.004 | 0.039 |
| YNR064C | 36091 | | biological_process unknown | 3903 | 1.056 | 4 | 16 | 0 | 0.016 | 0.101 |
| YDR184C | 33543 | ATC1 | response to stress* | 3904 | 1.056 | 4 | 12 | 0 | 0.111 | 0.058 |
| YIL130W | 32289 | | biological_process unknown | 3905 | 1.056 | 4 | 16 | 0 | 0.010 | 0.038 |
| YNL250W | 36464 | RAD50 | double-strand break repair via r | 3906 | 1.056 | 3 | 9 | 0 | | |
| YGR240C | 35893 | PFK1 | glycolysis | 3907 | 1.056 | 3 | 6 | 0 | | |
| YDR004W | 33944 | RAD57 | telomerase-independent telome | 3908 | 1.056 | 4 | 16 | 0 | -0.119 | 0.097 |
| YPL054W | 32774 | LEE1 | biological_process unknown | 3909 | 1.056 | 4 | 16 | 0 | 0.075 | 0.009 |
| YPL244C | 31048 | HUT1 | UDP-galactose transport | 3910 | 1.057 | 4 | 12 | 0 | -0.009 | 0.017 |
| YBL087C | 33113 | RPL23A | protein biosynthesis | 3911 | 1.057 | 4 | 12 | 0 | -0.011 | 0.015 |
| YNL093W | 37232 | YPT53 | protein-vacuolar targeting* | 3912 | 1.057 | 4 | 12 | 0 | 0.107 | 0.127 |
| YJR063W | 36861 | RPA12 | transcription from Pol I promote | 3913 | 1.057 | 3 | 6 | 0 | | |
| YOR358W | 31655 | HAP5 | transcription* | 3914 | 1.057 | 4 | 16 | 0 | 0.011 | 0.033 |
| YDR461W | 37260 | MFA1 | signal transduction during conju | 3915 | 1.057 | 4 | 16 | 0 | 0.030 | 0.053 |
| YJL047C | 31376 | RTT101 | negative regulation of DNA tran | 3916 | 1.057 | 4 | 8 | 0 | -0.001 | 0.000 |
| YOL080C | 31771 | REX4 | rRNA processing* | 3917 | 1.057 | 4 | 16 | 0 | -0.003 | 0.030 |
| YLR144C | 34101 | ACF2 | actin cytoskeleton organization | 3918 | 1.057 | 4 | 16 | 0 | 0.041 | 0.040 |
| YKL149C | 34999 | DBR1 | RNA catabolism* | 3919 | 1.058 | 4 | 16 | 0 | 0.023 | 0.034 |
| YOR076C | 31852 | SKI7 | mRNA catabolism | 3920 | 1.058 | 4 | 16 | 0 | 0.075 | 0.028 |
| YJL089W | 31334 | SIP4 | regulation of transcription from I | 3921 | 1.058 | 4 | 16 | 0 | 0.086 | 0.021 |
| YPL158C | 37394 | | biological_process unknown | 3922 | 1.058 | 4 | 12 | 0 | 0.011 | 0.051 |
| YOR359W | 31656 | VTS1 | protein-vacuolar targeting | 3923 | 1.058 | 4 | 15 | 0 | 0.094 | 0.028 |
| YGL136C | 34503 | MRM2 | rRNA modification | 3924 | 1.059 | 4 | 16 | 0 | 0.007 | 0.032 |
| YER111C | 36109 | SWI4 | G1/S transition of mitotic cell cy | 3925 | 1.059 | 4 | 11 | 0 | -0.062 | 0.009 |
| YOR120W | 32376 | GCY1 | salinity response* | 3926 | 1.059 | 4 | 16 | 0 | 0.085 | 0.037 |
| YMR316W | 36458 | DIA1 | pseudohyphal growth* | 3927 | 1.059 | 4 | 16 | 0 | -0.063 | 0.036 |
| YOR051C | 31827 | | biological_process unknown | 3928 | 1.060 | 4 | 16 | 0 | 0.035 | 0.055 |
| YLL007C | 36641 | | biological_process unknown | 3929 | 1.060 | 4 | 8 | 0 | 0.072 | 0.054 |
| YHL023C | 30940 | RMD11 | biological_process unknown | 3930 | 1.060 | 4 | 15 | 0 | 0.023 | 0.072 |
| YNL067W | 37215 | RPL9B | protein biosynthesis | 3931 | 1.060 | 4 | 16 | 0 | -0.036 | 0.022 |
| YDL063C | 33760 | | biological_process unknown | 3932 | 1.061 | 4 | 14 | 0 | 0.087 | 0.041 |
| YGR076C | 34706 | MRPL25 | protein biosynthesis | 3933 | 1.061 | 4 | 12 | 0 | -0.133 | 0.026 |
| YLR441C | 36045 | RPS1A | protein biosynthesis | 3934 | 1.061 | 3 | 6 | 0 | | |
| YLR406C | 36717 | RPL31B | protein biosynthesis | 3935 | 1.061 | 4 | 16 | 0 | 0.015 | 0.010 |
| YBR001C | 33136 | NTH2 | response to stress* | 3936 | 1.061 | 4 | 16 | 0 | 0.019 | 0.073 |
| YAL059W | 30348 | ECM1 | cell wall organization and bioge | 3937 | 1.061 | 4 | 8 | 0 | 0.157 | 0.016 |
| YEL061C | 30303 | CIN8 | mitotic chromosome segregatio | 3938 | 1.062 | 4 | 12 | 0 | -0.052 | 0.045 |
| YDL062W | 33759 | | | 3939 | 1.062 | 4 | 15 | 0 | 0.192 | 0.052 |
| YBR044C | 33181 | TCM62 | protein complex assembly | 3940 | 1.062 | 4 | 16 | 0 | 0.116 | 0.050 |
| YDR431W | 34267 | | | 3941 | 1.063 | 4 | 16 | 0 | 0.115 | 0.027 |
| YAL048C | 30357 | GON1 | vesicle-mediated transport | 3942 | 1.063 | 4 | 8 | 0 | 0.007 | 0.017 |
| YPL212C | 31080 | PUS1 | tRNA modification | 3943 | 1.063 | 4 | 16 | 0 | 0.124 | 0.040 |
| YJR094W | 36906 | RPL43B | protein biosynthesis | 3944 | 1.063 | 4 | 16 | 0 | 0.120 | 0.064 |
| YLR402W | 35311 | | | 3945 | 1.063 | 4 | 8 | 0 | -0.001 | 0.042 |
| YLR232W | 35141 | | | 3946 | 1.064 | 4 | 16 | 0 | 0.026 | 0.029 |
| YGL026C | 34394 | TRP5 | tryptophan biosynthesis | 3947 | 1.064 | 4 | 8 | 0 | 0.012 | 0.046 |
| YGL214W | 34580 | | | 3948 | 1.064 | 4 | 16 | 0 | 0.035 | 0.053 |
| YML012W | 30562 | ERV25 | ER to Golgi transport | 3949 | 1.064 | 4 | 8 | 0 | 0.095 | 0.066 |
| YDR049W | 33985 | | biological_process unknown | 3950 | 1.064 | 4 | 15 | 0 | 0.045 | 0.152 |
| YGL066W | 34433 | SGF73 | histone acetylation | 3951 | 1.064 | 4 | 16 | 0 | 0.060 | 0.103 |

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|---|---|---|---|---|---|---|---|---|---|---|
| YLR349W | 35258 | | | 3952 | 1.064 | 4 | 16 | 0 | 0.073 | 0.088 |
| YJL123C | 31302 | | biological_process unknown | 3953 | 1.065 | 4 | 16 | 0 | 0.027 | 0.041 |
| YMR123W | 36564 | PKR1 | biological_process unknown | 3954 | 1.065 | 4 | 8 | 0 | -0.088 | 0.058 |
| YLR410W | 35319 | VIP1 | actin cytoskeleton organization | 3955 | 1.065 | 4 | 16 | 0 | 0.033 | 0.026 |
| YML122C | 36523 | | | 3956 | 1.065 | 4 | 16 | 0 | 0.111 | 0.093 |
| YBR207W | 33347 | FTH1 | endocytosis | 3957 | 1.065 | 4 | 15 | 0 | 0.192 | 0.073 |
| YGR255C | 37287 | COQ6 | ubiquinone metabolism | 3958 | 1.065 | 4 | 8 | 0 | -0.045 | 0.003 |
| YKL007W | 34856 | CAP1 | cell wall organization and bioge | 3959 | 1.066 | 4 | 15 | 0 | 0.056 | 0.015 |
| YNL215W | 31997 | IES2 | biological_process unknown | 3960 | 1.066 | 4 | 8 | 0 | -0.084 | 0.030 |
| YDR540C | 35835 | | biological_process unknown | 3961 | 1.066 | 4 | 16 | 0 | 0.022 | 0.042 |
| YEL038W | 30279 | UTR4 | biological_process unknown | 3962 | 1.066 | 4 | 16 | 0 | 0.048 | 0.006 |
| YDL035C | 33731 | GPR1 | pseudohyphal growth* | 3963 | 1.067 | 4 | 12 | 0 | 0.041 | 0.050 |
| YBR219C | 33359 | | biological_process unknown | 3964 | 1.067 | 4 | 16 | 0 | 0.044 | 0.037 |
| YKL110C | 34960 | KTI12 | cell growth and/or maintenance | 3965 | 1.067 | 4 | 16 | 0 | -0.036 | 0.041 |
| YIR032C | 37305 | DAL3 | allantoin catabolism | 3966 | 1.068 | 4 | 16 | 0 | -0.004 | 0.027 |
| YHR158C | 32852 | KEL1 | cellular morphogenesis* | 3967 | 1.068 | 4 | 16 | 0 | 0.033 | 0.048 |
| YJL168C | 31257 | SET2 | regulation of transcription, DNA | 3968 | 1.068 | 4 | 16 | 0 | 0.137 | 0.064 |
| YDR155C | 33513 | CPR1 | protein metabolism | 3969 | 1.068 | 4 | 8 | 0 | 0.052 | 0.078 |
| YOR305W | 31602 | | biological_process unknown | 3970 | 1.068 | 4 | 16 | 0 | 0.067 | 0.076 |
| YLL013C | 31501 | PUF3 | mRNA catabolism, deadenylatic | 3971 | 1.068 | 4 | 11 | 0 | 0.069 | 0.002 |
| YLR324W | 35233 | | biological_process unknown | 3972 | 1.069 | 4 | 16 | 0 | -0.005 | 0.051 |
| YBR225W | 33365 | | biological_process unknown | 3973 | 1.069 | 4 | 16 | 0 | 0.089 | 0.018 |
| YML095C | 36492 | RAD10 | removal of nonhomologous end | 3974 | 1.069 | 4 | 16 | 0 | 0.010 | 0.021 |
| YPL080C | 32748 | | | 3975 | 1.069 | 4 | 16 | 0 | 0.104 | 0.037 |
| YML108W | 36508 | | biological_process unknown | 3976 | 1.069 | 4 | 16 | 0 | 0.067 | 0.090 |
| YOR251C | 32507 | | biological_process unknown | 3977 | 1.069 | 4 | 16 | 0 | 0.114 | 0.091 |
| YER164W | 36160 | CHD1 | chromatin modeling* | 3978 | 1.070 | 4 | 12 | 0 | 0.075 | 0.066 |
| YPL018W | 32810 | CTF19 | chromosome segregation* | 3979 | 1.070 | 4 | 12 | 0 | 0.024 | 0.041 |
| YNL322C | 31122 | KRE1 | cell wall organization and bioge | 3980 | 1.070 | 4 | 16 | 0 | 0.051 | 0.020 |
| YMR269W | 30855 | | biological_process unknown | 3981 | 1.070 | 3 | 12 | 0 | | |
| YHR029C | 30992 | | biological_process unknown | 3982 | 1.070 | 4 | 8 | 0 | 0.090 | 0.024 |
| YIL149C | 32308 | MLP2 | protein-nucleus import | 3983 | 1.071 | 4 | 8 | 0 | 0.046 | 0.029 |
| YBR224W | 33364 | | | 3984 | 1.071 | 4 | 16 | 0 | 0.063 | 0.079 |
| YDR457W | 34291 | TOM1 | protein monoubiquitination* | 3985 | 1.071 | 4 | 16 | 0 | 0.050 | 0.079 |
| YHR142W | 32835 | CHS7 | ER to Golgi transport* | 3986 | 1.072 | 4 | 12 | 0 | 0.058 | 0.045 |
| YJR044C | 36842 | VPS55 | late endosome to vacuole trans | 3987 | 1.072 | 4 | 16 | 0 | 0.081 | 0.073 |
| YJR060W | 36858 | CBF1 | methionine biosynthesis* | 3988 | 1.072 | 4 | 16 | 0 | 0.037 | 0.025 |
| YDR408C | 34244 | ADE8 | adenine biosynthesis | 3989 | 1.072 | 4 | 11 | 0 | 0.109 | 0.014 |
| YLR143W | 34100 | | biological_process unknown | 3990 | 1.072 | 4 | 16 | 0 | 0.051 | 0.037 |
| YDL162C | 33860 | | | 3991 | 1.073 | 4 | 16 | 0 | 0.106 | 0.076 |
| YBR177C | 33317 | EHT1 | lipid metabolism | 3992 | 1.074 | 4 | 16 | 0 | 0.040 | 0.052 |
| YDL216C | 33914 | RRI1 | adaptation to pheromone during | 3993 | 1.074 | 4 | 8 | 0 | 0.010 | 0.064 |
| YLR264W | 35173 | RPS28B | protein biosynthesis | 3994 | 1.075 | 4 | 8 | 0 | -0.031 | 0.039 |
| YGR200C | 34830 | ELP2 | regulation of transcription from I | 3995 | 1.075 | 4 | 14 | 0 | -0.001 | 0.002 |
| YEL027W | 30268 | CUP5 | protein-vacuolar targeting* | 3996 | 1.075 | 3 | 6 | 0 | | |
| YBL103C | 33131 | RTG3 | transcription initiation from Pol I | 3997 | 1.075 | 4 | 15 | 0 | 0.000 | 0.022 |
| YBL072C | 33098 | RPS8A | protein biosynthesis | 3998 | 1.076 | 4 | 16 | 0 | 0.047 | 0.035 |
| YJL183W | 31242 | MNN11 | protein amino acid glycosylatior | 3999 | 1.077 | 4 | 12 | 0 | -0.200 | 0.043 |
| YBL082C | 33108 | RHK1 | protein amino acid glycosylatior | 4000 | 1.077 | 4 | 15 | 0 | 0.039 | 0.013 |
| YHL013C | 30950 | | biological_process unknown | 4001 | 1.077 | 4 | 16 | 0 | 0.121 | 0.027 |
| YOR191W | 32447 | RIS1 | chromatin assembly/disassemb | 4002 | 1.077 | 4 | 16 | 0 | 0.028 | 0.061 |
| YLR180W | 34129 | SAM1 | methionine metabolism | 4003 | 1.077 | 4 | 16 | 0 | 0.063 | 0.026 |

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|---|---|---|---|---|---|---|---|---|---|
| YGL236C | 34603 | MTO1 | protein biosynthesis | 4004 | 1.078 | 4 | 12 | 0 | 0.104 | 0.141 |
| YBR197C | 33337 | | biological_process unknown | 4005 | 1.079 | 4 | 15 | 0 | -0.010 | 0.042 |
| YKL114C | 34964 | APN1 | DNA repair* | 4006 | 1.080 | 3 | 9 | 0 | | |
| YIL110W | 32269 | | biological_process unknown | 4007 | 1.080 | 4 | 11 | 0 | 0.191 | 0.057 |
| YKR047W | 35118 | | | 4008 | 1.080 | 4 | 16 | 0 | 0.003 | 0.057 |
| YAR042W | 30428 | SWH1 | biological_process unknown | 4009 | 1.080 | 4 | 8 | 0 | 0.102 | 0.024 |
| YNR051C | 36078 | BRE5 | biological_process unknown | 4010 | 1.081 | 4 | 16 | 0 | 0.079 | 0.071 |
| YNL091W | 37231 | NST1 | salinity response | 4011 | 1.081 | 4 | 16 | 0 | 0.014 | 0.012 |
| YFR032C- | 35846 | RPL29 | protein biosynthesis | 4012 | 1.081 | 4 | 16 | 0 | 0.017 | 0.028 |
| YLR358C | 36712 | | | 4013 | 1.082 | 4 | 14 | 0 | 0.159 | 0.145 |
| YOR091W | 31867 | | biological_process unknown | 4014 | 1.082 | 4 | 16 | 0 | 0.076 | 0.025 |
| YJL136C | 37002 | RPS21B | protein biosynthesis | 4015 | 1.083 | 3 | 6 | 0 | | |
| YER117W | 36115 | RPL23B | protein biosynthesis | 4016 | 1.083 | 3 | 6 | 0 | | |
| YLR110C | 37107 | CCW12 | cell wall organization and bioge | 4017 | 1.083 | 4 | 16 | 0 | 0.069 | 0.045 |
| YOR234C | 32490 | RPL33B | protein biosynthesis | 4018 | 1.084 | 4 | 15 | 0 | 0.055 | 0.055 |
| YDR335W | 33694 | MSN5 | protein-nucleus export | 4019 | 1.084 | 4 | 16 | 0 | -0.001 | 0.039 |
| YIL018W | 31411 | RPL2B | protein biosynthesis | 4020 | 1.084 | 4 | 16 | 0 | 0.098 | 0.028 |
| YER151C | 36148 | UBP3 | protein deubiquitination | 4021 | 1.084 | 4 | 12 | 0 | 0.066 | 0.035 |
| YLR150W | 34107 | STM1 | telomere maintenance* | 4022 | 1.084 | 4 | 16 | 0 | 0.055 | 0.017 |
| YHL020C | 30943 | OPI1 | negative regulation of transcript | 4023 | 1.085 | 4 | 16 | 0 | -0.027 | 0.039 |
| YAL020C | 30388 | ATS1 | microtubule-based process | 4024 | 1.085 | 4 | 8 | 0 | 0.156 | 0.012 |
| YFL001W | 37270 | DEG1 | RNA processing | 4025 | 1.085 | 3 | 6 | 0 | | |
| YJR014W | 36812 | | biological_process unknown | 4026 | 1.086 | 4 | 16 | 0 | 0.100 | 0.032 |
| YOL115W | 36265 | TRF4 | mitotic chromosome condensati | 4027 | 1.086 | 3 | 6 | 0 | | |
| YCL058C | 36877 | FYV5 | cell ion homeostasis | 4028 | 1.086 | 3 | 6 | 0 | | |
| YJL124C | 31301 | LSM1 | rRNA processing* | 4029 | 1.086 | 4 | 15 | 0 | 0.209 | 0.034 |
| YER137C | 36136 | | biological_process unknown | 4030 | 1.087 | 4 | 16 | 0 | 0.029 | 0.080 |
| YHR051W | 31879 | COX6 | aerobic respiration | 4031 | 1.087 | 4 | 11 | 0 | 0.054 | 0.035 |
| YDR447C | 34281 | RPS17B | protein biosynthesis* | 4032 | 1.087 | 4 | 12 | 0 | 0.138 | 0.036 |
| YLL044W | 36424 | | | 4033 | 1.087 | 4 | 8 | 0 | 0.064 | 0.015 |
| YCR066W | 35787 | RAD18 | DNA repair | 4034 | 1.088 | 4 | 12 | 0 | 0.015 | 0.043 |
| YDR334W | 33693 | | biological_process unknown | 4035 | 1.088 | 4 | 16 | 0 | -0.029 | 0.073 |
| YLR422W | 36025 | | biological_process unknown | 4036 | 1.089 | 4 | 16 | 0 | 0.106 | 0.054 |
| YOR304C | 31600 | | biological_process unknown | 4037 | 1.090 | 4 | 16 | 0 | 0.003 | 0.065 |
| YGR081C | 34711 | | biological_process unknown | 4038 | 1.090 | 4 | 8 | 0 | -0.016 | 0.026 |
| YNL084C | 32992 | END3 | actin filament organization* | 4039 | 1.090 | 4 | 16 | 0 | 0.129 | 0.072 |
| YOR369C | 31666 | RPS12 | protein biosynthesis | 4040 | 1.090 | 4 | 12 | 0 | 0.102 | 0.100 |
| YHR110W | 31938 | ERP5 | secretory pathway | 4041 | 1.090 | 4 | 15 | 0 | 0.063 | 0.021 |
| YER016W | 30147 | BIM1 | mitotic spindle checkpoint* | 4042 | 1.090 | 4 | 8 | 0 | 0.170 | 0.013 |
| YIL092W | 31483 | | biological_process unknown | 4043 | 1.090 | 4 | 16 | 0 | -0.018 | 0.024 |
| YCR065W | 35786 | HCM1 | transcription initiation from Pol I | 4044 | 1.091 | 4 | 15 | 0 | 0.093 | 0.074 |
| YKR074W | 35990 | | biological_process unknown | 4045 | 1.091 | 4 | 8 | 0 | 0.128 | 0.004 |
| YGR157W | 34787 | CHO2 | phosphatidylcholine biosynthesi | 4046 | 1.092 | 3 | 6 | 0 | | |
| YDL136W | 33834 | RPL35B | protein biosynthesis | 4047 | 1.092 | 4 | 16 | 0 | -0.010 | 0.009 |
| YCR024C | 35752 | | protein biosynthesis | 4048 | 1.092 | 4 | 16 | 0 | 0.092 | 0.042 |
| YIL098C | 32257 | FMC1 | protein complex assembly | 4049 | 1.093 | 4 | 16 | 0 | 0.073 | 0.025 |
| YKL056C | 34905 | | biological_process unknown | 4050 | 1.093 | 4 | 16 | 0 | 0.002 | 0.066 |
| YIL069C | 31462 | RPS24B | protein biosynthesis | 4051 | 1.093 | 4 | 16 | 0 | 0.037 | 0.029 |
| YDR125C | 34059 | ECM18 | cell wall organization and bioge | 4052 | 1.093 | 4 | 15 | 0 | 0.084 | 0.080 |
| YJL152W | 31273 | | | 4053 | 1.093 | 4 | 16 | 0 | 0.067 | 0.011 |
| YOR123C | 32379 | LEO1 | transcription from Pol II promote | 4054 | 1.095 | 4 | 16 | 0 | 0.113 | 0.019 |
| YOR315W | 31612 | | biological_process unknown | 4055 | 1.095 | 4 | 12 | 0 | 0.049 | 0.053 |

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|---|---|---|---|---|---|---|---|---|---|
| YPR069C | 35488 | SPE3 | pantothenate biosynthesis* | 4056 | 1.096 | 4 | 8 | 0 | 0.031 | 0.022 |
| YDR462W | 34296 | MRPL28 | protein biosynthesis | 4057 | 1.096 | 4 | 8 | 0 | -0.057 | 0.002 |
| YLL043W | 31531 | FPS1 | transport* | 4058 | 1.097 | 4 | 16 | 0 | 0.181 | 0.047 |
| YGL007W | 34375 | | | 4059 | 1.097 | 4 | 12 | 0 | 0.007 | 0.053 |
| YPL182C | 32071 | | | 4060 | 1.097 | 4 | 16 | 0 | 0.080 | 0.010 |
| YDR516C | 34350 | EMI2 | biological_process unknown | 4061 | 1.097 | 4 | 16 | 0 | 0.046 | 0.025 |
| YAR018C | 30415 | KIN3 | chromosome segregation | 4062 | 1.097 | 4 | 8 | 0 | 0.094 | 0.035 |
| YHR013C | 30976 | ARD1 | protein amino acid acetylation | 4063 | 1.097 | 4 | 16 | 0 | 0.056 | 0.018 |
| YBL071C | 33097 | | | 4064 | 1.097 | 4 | 15 | 0 | 0.077 | 0.014 |
| YLR018C | 31573 | POM34 | nucleocytoplasmic transport | 4065 | 1.098 | 4 | 16 | 0 | 0.091 | 0.059 |
| YNL109W | 37381 | | | 4066 | 1.098 | 4 | 12 | 0 | 0.124 | 0.035 |
| YKR092C | 36008 | SRP40 | nucleocytoplasmic transport | 4067 | 1.098 | 4 | 15 | 0 | 0.038 | 0.032 |
| YNL107W | 37240 | YAF9 | biological_process unknown | 4068 | 1.098 | 4 | 12 | 0 | 0.135 | 0.031 |
| YGR134W | 36405 | CAF130 | regulation of transcription from I | 4069 | 1.099 | 4 | 16 | 0 | 0.079 | 0.050 |
| YCR094W | 35813 | CDC50 | G1 phase of mitotic cell cycle* | 4070 | 1.099 | 4 | 15 | 0 | 0.192 | 0.111 |
| YHR081W | 31909 | LRP1 | double-strand break repair via r | 4071 | 1.099 | 3 | 6 | 0 | | |
| YGL234W | 34601 | ADE5,7 | purine base metabolism | 4072 | 1.099 | 4 | 16 | 0 | 0.096 | 0.132 |
| YKL194C | 37032 | MST1 | threonyl-tRNA aminoacylation | 4073 | 1.100 | 4 | 16 | 0 | -0.042 | 0.071 |
| YBR020W | 37345 | GAL1 | galactose metabolism | 4074 | 1.100 | 4 | 16 | 0 | 0.054 | 0.026 |
| YHR077C | 31905 | NMD2 | mRNA catabolism* | 4075 | 1.101 | 4 | 16 | 0 | 0.113 | 0.051 |
| YDR385W | 34221 | EFT2 | translational elongation | 4076 | 1.102 | 4 | 16 | 0 | 0.054 | 0.061 |
| YDL022W | 33718 | GPD1 | intracellular accumulation of gly | 4077 | 1.102 | 4 | 16 | 0 | 0.024 | 0.036 |
| YGL078C | 34445 | DBP3 | 35S primary transcript processi | 4078 | 1.102 | 4 | 14 | 0 | 0.052 | 0.014 |
| YOL108C | 36258 | INO4 | positive regulation of transcripti | 4079 | 1.102 | 4 | 11 | 0 | 0.144 | 0.089 |
| YDL020C | 33716 | RPN4 | ubiquitin-dependent protein cat | 4080 | 1.102 | 4 | 12 | 0 | 0.047 | 0.066 |
| YGL252C | 34619 | RTG2 | intracellular signaling cascade | 4081 | 1.102 | 4 | 15 | 0 | 0.079 | 0.052 |
| YDR348C | 34185 | | biological_process unknown | 4082 | 1.103 | 4 | 8 | 0 | 0.232 | 0.032 |
| YGL043W | 34411 | DST1 | meiotic recombination* | 4083 | 1.103 | 4 | 16 | 0 | 0.068 | 0.044 |
| YLR111W | 32722 | | | 4084 | 1.104 | 4 | 16 | 0 | 0.042 | 0.025 |
| YOL001W | 31692 | PHO80 | regulation of phosphate metabo | 4085 | 1.104 | 4 | 16 | 0 | 0.051 | 0.106 |
| YAL044C | 30361 | GCV3 | one-carbon compound metaboli | 4086 | 1.105 | 4 | 8 | 0 | -0.035 | 0.101 |
| YDR360W | 34197 | | | 4087 | 1.105 | 4 | 11 | 0 | -0.048 | 0.029 |
| YGR257C | 37288 | MTM1 | transport* | 4088 | 1.106 | 4 | 8 | 0 | 0.138 | 0.025 |
| YPL098C | 32154 | | biological_process unknown | 4089 | 1.106 | 4 | 8 | 0 | -0.050 | 0.006 |
| YKR048C | 35119 | NAP1 | nucleosome assembly* | 4090 | 1.107 | 4 | 16 | 0 | -0.081 | 0.024 |
| YGL237C | 34604 | HAP2 | transcription* | 4091 | 1.107 | 4 | 8 | 0 | 0.033 | 0.013 |
| YKL074C | 34923 | MUD2 | U2-type nuclear mRNA branch | 4092 | 1.107 | 4 | 16 | 0 | 0.126 | 0.059 |
| YBR082C | 33219 | UBC4 | response to stress* | 4093 | 1.107 | 4 | 8 | 0 | 0.102 | 0.023 |
| YOL054W | 31746 | PSH1 | RNA elongation from Pol II pron | 4094 | 1.107 | 4 | 16 | 0 | 0.101 | 0.005 |
| YEL013W | 30253 | VAC8 | protein-vacuolar targeting* | 4095 | 1.108 | 4 | 16 | 0 | 0.079 | 0.049 |
| YLR368W | 35277 | MDM30 | mitochondrion organization and | 4096 | 1.108 | 3 | 6 | 0 | | |
| YNL136W | 32940 | | biological_process unknown | 4097 | 1.108 | 4 | 12 | 0 | 0.068 | 0.071 |
| YML073C | 37368 | RPL6A | protein biosynthesis* | 4098 | 1.108 | 4 | 11 | 0 | 0.066 | 0.087 |
| YJL190C | 31235 | RPS22A | protein biosynthesis | 4099 | 1.109 | 4 | 16 | 0 | 0.024 | 0.056 |
| YPL062W | 32766 | | | 4100 | 1.109 | 4 | 16 | 0 | 0.021 | 0.048 |
| YMR230W | 30816 | RPS10B | protein biosynthesis | 4101 | 1.109 | 3 | 9 | 0 | | |
| YPL208W | 31084 | | biological_process unknown | 4102 | 1.109 | 4 | 15 | 0 | -0.001 | 0.060 |
| YGR150C | 34780 | | biological_process unknown | 4103 | 1.109 | 4 | 15 | 0 | 0.036 | 0.039 |
| YLR067C | 32678 | PET309 | protein biosynthesis* | 4104 | 1.110 | 4 | 8 | 0 | 0.045 | 0.042 |
| YFL018C | 35636 | LPD1 | L-serine biosynthesis* | 4105 | 1.110 | 4 | 16 | 0 | -0.022 | 0.019 |
| YPL205C | 31087 | | | 4106 | 1.110 | 4 | 11 | 0 | 0.188 | 0.009 |
| YJR144W | 36937 | MGM101 | DNA repair* | 4107 | 1.110 | 4 | 16 | 0 | 0.157 | 0.038 |

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|---|---|---|---|---|---|---|---|---|---|---|
| YLR061W | 32672 | RPL22A | protein biosynthesis | 4108 | 1.111 | 3 | 6 | 0 | | |
| YER007C- | 30328 | | biological_process unknown | 4109 | 1.112 | 4 | 16 | 0 | 0.101 | 0.011 |
| YHR134W | 31962 | WSS1 | protein sumoylation | 4110 | 1.112 | 4 | 16 | 0 | 0.063 | 0.077 |
| YLR055C | 32666 | SPT8 | histone acetylation* | 4111 | 1.112 | 4 | 16 | 0 | 0.215 | 0.060 |
| YHR034C | 30997 | | protein biosynthesis | 4112 | 1.112 | 3 | 12 | 0 | | |
| YJR145C | 36938 | RPS4A | protein biosynthesis* | 4113 | 1.114 | 3 | 9 | 0 | | |
| YDR485C | 34319 | VPS72 | protein-vacuolar targeting | 4114 | 1.115 | 4 | 15 | 0 | 0.118 | 0.083 |
| YER116C | 36114 | SLX8 | DNA recombination | 4115 | 1.115 | 3 | 6 | 0 | | |
| YDR471W | 34305 | RPL27B | protein biosynthesis | 4116 | 1.116 | 3 | 6 | 0 | | |
| YIL017C | 31410 | VID28 | negative regulation of gluconeo | 4117 | 1.116 | 4 | 8 | 0 | 0.060 | 0.074 |
| YBR106W | 33245 | PHO88 | phosphate transport | 4118 | 1.117 | 4 | 12 | 0 | 0.051 | 0.044 |
| YDR500C | 37263 | RPL37B | protein biosynthesis | 4119 | 1.119 | 4 | 11 | 0 | 0.156 | 0.040 |
| YCL029C | 33436 | BIK1 | mitotic anaphase B* | 4120 | 1.119 | 3 | 6 | 0 | | |
| YEL036C | 30277 | ANP1 | N-linked glycosylation | 4121 | 1.119 | 4 | 12 | 0 | 0.066 | 0.019 |
| YBR048W | 33185 | RPS11B | protein biosynthesis* | 4122 | 1.119 | 4 | 16 | 0 | 0.048 | 0.014 |
| YNL069C | 37376 | RPL16B | protein biosynthesis | 4123 | 1.119 | 4 | 14 | 0 | 0.039 | 0.042 |
| YDR463W | 34297 | STP1 | positive regulation of transcripti | 4124 | 1.120 | 4 | 11 | 0 | 0.086 | 0.638 |
| YOR309C | 31606 | | | 4125 | 1.120 | 4 | 11 | 0 | 0.133 | 0.060 |
| YCL037C | 33444 | SRO9 | protein biosynthesis | 4126 | 1.120 | 4 | 12 | 0 | 0.052 | 0.088 |
| YNL055C | 37374 | POR1 | aerobic respiration* | 4127 | 1.121 | 4 | 15 | 0 | 0.106 | 0.045 |
| YJR121W | 36924 | ATP2 | ATP synthesis coupled proton t | 4128 | 1.121 | 4 | 16 | 0 | 0.015 | 0.067 |
| YBR128C | 33267 | ATG14 | autophagy | 4129 | 1.121 | 4 | 16 | 0 | 0.075 | 0.015 |
| YGR148C | 34778 | RPL24B | protein biosynthesis | 4130 | 1.123 | 4 | 15 | 0 | 0.083 | 0.061 |
| YCR098C | 35815 | GIT1 | phospholipid transport | 4131 | 1.125 | 4 | 12 | 0 | 0.105 | 0.048 |
| YDR156W | 33514 | RPA14 | transcription from Pol I promote | 4132 | 1.125 | 4 | 16 | 0 | 0.081 | 0.086 |
| YOR183W | 32439 | FYV12 | biological_process unknown | 4133 | 1.125 | 4 | 15 | 0 | 0.055 | 0.137 |
| YBL007C | 33033 | SLA1 | cell wall organization and bioge | 4134 | 1.127 | 3 | 6 | 0 | | |
| YMR272C | 30858 | SCS7 | fatty acid metabolism | 4135 | 1.128 | 4 | 8 | 0 | 0.056 | 0.035 |
| YOR221C | 32477 | MCT1 | aerobic respiration* | 4136 | 1.128 | 3 | 6 | 0 | | |
| YLR099C | 32710 | ICT1 | biological_process unknown | 4137 | 1.128 | 4 | 16 | 0 | 0.023 | 0.049 |
| YER074W | 30214 | RPS24A | protein biosynthesis | 4138 | 1.129 | 4 | 12 | 0 | 0.117 | 0.045 |
| YMR280C | 30866 | CAT8 | positive regulation of transcripti | 4139 | 1.129 | 4 | 16 | 0 | 0.055 | 0.098 |
| YNL213C | 31999 | | mitochondrion organization and | 4140 | 1.129 | 4 | 16 | 0 | 0.091 | 0.060 |
| YPL068C | 32760 | | biological_process unknown | 4141 | 1.129 | 4 | 8 | 0 | 0.005 | 0.013 |
| YER061C | 30198 | CEM1 | hexadecanal biosynthesis | 4142 | 1.130 | 4 | 16 | 0 | 0.105 | 0.084 |
| YAR015W | 30414 | ADE1 | purine base metabolism | 4143 | 1.130 | 4 | 8 | 0 | -0.089 | 0.016 |
| YNR004W | 35379 | | biological_process unknown | 4144 | 1.130 | 4 | 16 | 0 | 0.043 | 0.070 |
| YER040W | 30173 | GLN3 | positive regulation of transcripti | 4145 | 1.131 | 4 | 15 | 0 | 0.066 | 0.056 |
| YGL016W | 34384 | KAP122 | protein-nucleus import* | 4146 | 1.131 | 4 | 8 | 0 | 0.063 | 0.046 |
| YER178W | 36174 | PDA1 | pyruvate metabolism | 4147 | 1.132 | 4 | 16 | 0 | 0.144 | 0.074 |
| YML010W | 30565 | | | 4148 | 1.133 | 4 | 8 | 0 | 0.046 | 0.028 |
| YLR182W | 34131 | SWI6 | meiosis* | 4149 | 1.133 | 4 | 16 | 0 | 0.113 | 0.054 |
| YNL252C | 36465 | MRPL17 | protein biosynthesis | 4150 | 1.133 | 4 | 14 | 0 | 0.064 | 0.001 |
| YNL096C | 37379 | RPS7B | protein biosynthesis | 4151 | 1.133 | 4 | 16 | 0 | 0.042 | 0.016 |
| YDR281C | 33640 | PHM6 | biological_process unknown | 4152 | 1.133 | 4 | 8 | 0 | 0.208 | 0.040 |
| YHR200W | 32894 | RPN10 | ubiquitin-dependent protein cat | 4153 | 1.134 | 4 | 16 | 0 | -0.047 | 0.025 |
| YJR032W | 36830 | CPR7 | response to stress | 4154 | 1.137 | 4 | 12 | 0 | 0.006 | 0.110 |
| YLR190W | 34139 | MMR1 | biological_process unknown | 4155 | 1.137 | 4 | 15 | 0 | 0.139 | 0.106 |
| YIL038C | 31431 | NOT3 | regulation of transcription from I | 4156 | 1.138 | 4 | 16 | 0 | 0.179 | 0.044 |
| YMR143W | 30724 | RPS16A | protein biosynthesis | 4157 | 1.138 | 3 | 6 | 0 | | |
| YGR085C | 34715 | RPL11B | protein biosynthesis* | 4158 | 1.139 | 4 | 11 | 0 | 0.049 | 0.072 |
| YOR167C | 32423 | RPS28A | protein biosynthesis | 4159 | 1.140 | 4 | 16 | 0 | 0.087 | 0.059 |

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|---|---|---|---|---|---|---|---|---|---|---|
| YBR147W | 33286 | | biological_process unknown | 4160 | 1.140 | 4 | 12 | 2 | -0.343 | 0.250 |
| YOR308C | 31605 | SNU66 | nuclear mRNA splicing, via splic | 4161 | 1.140 | 4 | 16 | 0 | 0.085 | 0.067 |
| YPR164W | 35579 | MMS1 | DNA repair* | 4162 | 1.141 | 4 | 12 | 0 | 0.025 | 0.051 |
| YDR150W | 33508 | NUM1 | nuclear migration (sensu Sacch | 4163 | 1.141 | 4 | 8 | 0 | 0.071 | 0.000 |
| YOL100W | 36250 | PKH2 | protein amino acid phosphoryla | 4164 | 1.142 | 4 | 8 | 0 | 0.146 | 0.005 |
| YDR443C | 34279 | SSN2 | negative regulation of transcript | 4165 | 1.143 | 4 | 16 | 0 | 0.094 | 0.028 |
| YGR214W | 34844 | RPS0A | protein biosynthesis* | 4166 | 1.144 | 4 | 16 | 0 | 0.057 | 0.097 |
| YIL039W | 31432 | | biological_process unknown | 4167 | 1.144 | 4 | 15 | 0 | 0.181 | 0.027 |
| YDR207C | 33566 | UME6 | negative regulation of transcript | 4168 | 1.146 | 4 | 8 | 0 | -0.023 | 0.038 |
| YLL045C | 31533 | RPL8B | protein biosynthesis | 4169 | 1.147 | 4 | 16 | 0 | 0.050 | 0.041 |
| YER131W | 36130 | RPS26B | protein biosynthesis | 4170 | 1.147 | 4 | 16 | 0 | 0.238 | 0.009 |
| YIR005W | 32341 | IST3 | spliceosome assembly | 4171 | 1.147 | 4 | 8 | 0 | 0.222 | 0.019 |
| YBL027W | 33053 | RPL19B | protein biosynthesis | 4172 | 1.148 | 4 | 8 | 0 | 0.040 | 0.009 |
| YIL093C | 31484 | RSM25 | protein biosynthesis | 4173 | 1.148 | 3 | 6 | 0 | | |
| YOL052C | 31743 | SPE2 | pantothenate biosynthesis | 4174 | 1.149 | 4 | 8 | 0 | -0.013 | 0.091 |
| YEL003W | 30243 | GIM4 | tubulin folding | 4175 | 1.150 | 4 | 16 | 0 | 0.066 | 0.102 |
| YCR031C | 35760 | RPS14A | protein biosynthesis* | 4176 | 1.150 | 4 | 16 | 0 | 0.140 | 0.056 |
| YAL023C | 30385 | PMT2 | O-linked glycosylation | 4177 | 1.151 | 4 | 8 | 0 | 0.181 | 0.027 |
| YLR193C | 34142 | | biological_process unknown | 4178 | 1.151 | 4 | 16 | 0 | 0.091 | 0.015 |
| YOR078W | 31854 | BUD21 | processing of 20S pre-rRNA | 4179 | 1.151 | 3 | 6 | 0 | | |
| YGL031C | 34399 | RPL24A | protein biosynthesis | 4180 | 1.152 | 4 | 16 | 0 | 0.185 | 0.038 |
| YMR064W | 36197 | AEP1 | protein biosynthesis | 4181 | 1.152 | 4 | 14 | 0 | 0.156 | 0.028 |
| YDR439W | 34275 | LRS4 | chromatin silencing at ribosoma | 4182 | 1.153 | 4 | 12 | 0 | 0.087 | 0.039 |
| YJL062W | 31361 | LAS21 | GPI anchor biosynthesis | 4183 | 1.153 | 4 | 11 | 0 | -0.126 | 0.007 |
| YDR237W | 33596 | MRPL7 | protein biosynthesis | 4184 | 1.153 | 4 | 15 | 0 | 0.004 | 0.064 |
| YJL177W | 37016 | RPL17B | protein biosynthesis | 4185 | 1.154 | 4 | 16 | 0 | 0.168 | 0.023 |
| YHR111W | 31939 | UBA4 | protein modification | 4186 | 1.154 | 4 | 15 | 0 | 0.178 | 0.092 |
| YGL251C | 34618 | HFM1 | meiosis* | 4187 | 1.157 | 4 | 8 | 0 | 0.166 | 0.007 |
| YNL141W | 32935 | AAH1 | adenine catabolism | 4188 | 1.158 | 4 | 8 | 0 | 0.042 | 0.050 |
| YKL211C | 35061 | TRP3 | tryptophan biosynthesis | 4189 | 1.160 | 4 | 12 | 0 | 0.024 | 0.028 |
| YPL214C | 31078 | THI6 | thiamin biosynthesis | 4190 | 1.160 | 4 | 16 | 0 | 0.151 | 0.025 |
| YIR009W | 32345 | MSL1 | nuclear mRNA splicing, via splic | 4191 | 1.161 | 3 | 6 | 0 | | |
| YKL184W | 35034 | SPE1 | pantothenate biosynthesis | 4192 | 1.162 | 4 | 16 | 0 | 0.122 | 0.058 |
| YJL101C | 37097 | GSH1 | glutathione biosynthesis* | 4193 | 1.163 | 3 | 6 | 0 | | |
| YGL064C | 34431 | MRH4 | ribosome biogenesis | 4194 | 1.164 | 3 | 6 | 0 | | |
| YBR231C | 33371 | AOR1 | biological_process unknown | 4195 | 1.164 | 4 | 16 | 0 | 0.108 | 0.053 |
| YGR171C | 34801 | MSM1 | methionyl-tRNA aminoacylation | 4196 | 1.166 | 4 | 12 | 0 | 0.079 | 0.041 |
| YOL050C | 31741 | | | 4197 | 1.166 | 4 | 12 | 0 | 0.105 | 0.060 |
| YBR031W | 33168 | RPL4A | protein biosynthesis | 4198 | 1.168 | 4 | 16 | 0 | 0.144 | 0.035 |
| YPL061W | 32767 | ALD6 | acetate biosynthesis | 4199 | 1.169 | 4 | 8 | 0 | 0.166 | 0.035 |
| YML128C | 36529 | MSC1 | meiotic recombination | 4200 | 1.169 | 4 | 8 | 0 | -0.035 | 0.048 |
| YFR031C- | 35712 | RPL2A | protein biosynthesis | 4201 | 1.170 | 4 | 16 | 0 | 0.094 | 0.037 |
| YMR193C | 30780 | | | 4202 | 1.170 | 4 | 14 | 0 | 0.221 | 0.004 |
| YLR386W | 35295 | VAC14 | vacuole inheritance* | 4203 | 1.170 | 3 | 6 | 0 | | |
| YLR388W | 35297 | RPS29A | protein biosynthesis | 4204 | 1.171 | 4 | 8 | 0 | 0.115 | 0.057 |
| YMR116C | 36556 | ASC1 | biological_process unknown | 4205 | 1.171 | 4 | 12 | 0 | -0.009 | 0.130 |
| YJL148W | 31277 | RPA34 | transcription from Pol I promote | 4206 | 1.171 | 4 | 16 | 0 | 0.090 | 0.042 |
| YGR092W | 36990 | DBF2 | protein amino acid phosphoryla | 4207 | 1.171 | 4 | 8 | 0 | 0.030 | 0.100 |
| YER156C | 36153 | | biological_process unknown | 4208 | 1.172 | 4 | 11 | 0 | 0.285 | 0.029 |
| YMR216C | 30802 | SKY1 | response to drug* | 4209 | 1.172 | 4 | 16 | 0 | 0.249 | 0.054 |
| YJL180C | 31245 | ATP12 | protein complex assembly | 4210 | 1.173 | 4 | 8 | 0 | -0.160 | 0.071 |
| YNR037C | 35412 | RSM19 | protein biosynthesis | 4211 | 1.173 | 4 | 16 | 0 | 0.047 | 0.104 |

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|---|---|---|---|---|---|---|---|---|---|---|
| YGR118W | 34748 | RPS23A | protein biosynthesis* | 4212 | 1.174 | 4 | 12 | 0 | 0.017 | 0.042 |
| YPL183W- | 37395 | GON5 | protein biosynthesis | 4213 | 1.174 | 4 | 16 | 0 | -0.021 | 0.047 |
| YJL023C | 36791 | PET130 | biological_process unknown | 4214 | 1.175 | 4 | 16 | 0 | 0.006 | 0.047 |
| YKL055C | 34904 | OAR1 | aerobic respiration* | 4215 | 1.176 | 3 | 6 | 0 | | |
| YGR063C | 36986 | SPT4 | regulation of transcription, DNA | 4216 | 1.176 | 4 | 15 | 0 | 0.251 | 0.093 |
| YPL102C | 32151 | | | 4217 | 1.177 | 4 | 16 | 0 | 0.109 | 0.067 |
| YML026C | 30547 | RPS18B | protein biosynthesis | 4218 | 1.178 | 3 | 6 | 0 | | |
| YDL061C | 33758 | RPS29B | protein biosynthesis | 4219 | 1.179 | 4 | 8 | 0 | 0.022 | 0.007 |
| YBL090W | 33116 | MRP21 | protein biosynthesis* | 4220 | 1.179 | 4 | 11 | 0 | 0.010 | 0.025 |
| YDL082W | 33779 | RPL13A | protein biosynthesis | 4221 | 1.179 | 3 | 9 | 0 | | |
| YKL053C- | 37311 | MDM35 | mitochondrion organization and | 4222 | 1.180 | 4 | 11 | 0 | -0.082 | 0.033 |
| YGR102C | 34732 | | biological_process unknown | 4223 | 1.181 | 4 | 15 | 0 | 0.104 | 0.052 |
| YGR220C | 35873 | MRPL9 | protein biosynthesis* | 4224 | 1.181 | 4 | 15 | 0 | 0.136 | 0.018 |
| YEL054C | 30295 | RPL12A | protein biosynthesis* | 4225 | 1.184 | 4 | 8 | 0 | 0.155 | 0.028 |
| YFL016C | 37280 | MDJ1 | protein folding* | 4226 | 1.184 | 3 | 6 | 0 | | |
| YKL048C | 34897 | ELM1 | protein amino acid phosphoryla | 4227 | 1.184 | 4 | 16 | 0 | 0.014 | 0.057 |
| YKR057W | 35128 | RPS21A | protein biosynthesis | 4228 | 1.187 | 3 | 6 | 0 | | |
| YPL174C | 32078 | NIP100 | mitotic anaphase B | 4229 | 1.189 | 4 | 16 | 0 | 0.130 | 0.060 |
| YLR184W | 34133 | | | 4230 | 1.190 | 3 | 6 | 0 | | |
| YBR162C | 33301 | TOS1 | biological_process unknown | 4231 | 1.191 | 4 | 8 | 0 | 0.189 | 0.022 |
| YMR312W | 36452 | ELP6 | regulation of transcription from I | 4232 | 1.192 | 4 | 12 | 0 | -0.056 | 0.076 |
| YER087W | 30227 | | biological_process unknown | 4233 | 1.193 | 4 | 11 | 0 | 0.175 | 0.081 |
| YDR123C | 34057 | INO2 | positive regulation of transcripti | 4234 | 1.193 | 4 | 11 | 0 | 0.316 | 0.048 |
| YJL046W | 31377 | | biological_process unknown | 4235 | 1.193 | 4 | 11 | 0 | 0.331 | 0.003 |
| YOR235W | 32491 | | | 4236 | 1.194 | 4 | 16 | 0 | 0.154 | 0.095 |
| YPL178W | 32074 | CBC2 | nuclear mRNA splicing, via splic | 4237 | 1.194 | 4 | 16 | 0 | 0.243 | 0.023 |
| YML014W | 30559 | TRM9 | biological_process unknown | 4238 | 1.196 | 4 | 8 | 0 | 0.153 | 0.067 |
| YJR070C | 36894 | | biological_process unknown | 4239 | 1.197 | 4 | 16 | 0 | 0.229 | 0.127 |
| YGL147C | 34514 | RPL9A | protein biosynthesis | 4240 | 1.197 | 4 | 11 | 0 | 0.094 | 0.011 |
| YNL177C | 32035 | MRPL22 | protein biosynthesis* | 4241 | 1.199 | 4 | 12 | 0 | 0.127 | 0.126 |
| YIL133C | 32292 | RPL16A | protein biosynthesis | 4242 | 1.200 | 4 | 8 | 0 | 0.059 | 0.049 |
| YOL095C | 36245 | HMI1 | mitochondrial genome maintena | 4243 | 1.202 | 3 | 6 | 0 | | |
| YNL315C | 37319 | ATP11 | protein complex assembly | 4244 | 1.203 | 4 | 12 | 0 | 0.156 | 0.056 |
| YHR100C | 31928 | | biological_process unknown | 4245 | 1.204 | 4 | 16 | 0 | 0.058 | 0.071 |
| YDR083W | 34018 | RRP8 | rRNA processing | 4246 | 1.204 | 4 | 16 | 0 | -0.038 | 0.041 |
| YDR392W | 34228 | SPT3 | pseudohyphal growth* | 4247 | 1.207 | 3 | 6 | 0 | | |
| YBR168W | 37166 | | biological_process unknown | 4248 | 1.207 | 4 | 12 | 0 | 0.127 | 0.072 |
| YOL006C | 31697 | TOP1 | regulation of transcription from I | 4249 | 1.210 | 4 | 16 | 0 | 0.136 | 0.037 |
| YPL086C | 32742 | ELP3 | regulation of transcription from I | 4250 | 1.210 | 4 | 8 | 0 | 0.217 | 0.102 |
| YGL212W | 34578 | VAM7 | nonselective vesicle fusion* | 4251 | 1.211 | 3 | 9 | 0 | | |
| YNL119W | 37242 | | biological_process unknown | 4252 | 1.212 | 4 | 16 | 0 | 0.123 | 0.049 |
| YIL103W | 32262 | | biological_process unknown | 4253 | 1.212 | 4 | 8 | 0 | 0.251 | 0.060 |
| YMR194W | 30779 | RPL36A | protein biosynthesis | 4254 | 1.216 | 4 | 15 | 0 | 0.175 | 0.030 |
| YPR166C | 35581 | MRP2 | protein biosynthesis | 4255 | 1.217 | 4 | 15 | 0 | 0.138 | 0.073 |
| YHL033C | 30930 | RPL8A | protein biosynthesis | 4256 | 1.219 | 4 | 8 | 0 | 0.230 | 0.068 |
| YKL016C | 34865 | ATP7 | protein complex assembly* | 4257 | 1.219 | 4 | 16 | 0 | 0.017 | 0.157 |
| YMR179W | 30764 | SPT21 | regulation of transcription from I | 4258 | 1.221 | 4 | 8 | 0 | 0.194 | 0.029 |
| YLR448W | 36052 | RPL6B | protein biosynthesis* | 4259 | 1.221 | 4 | 12 | 0 | 0.199 | 0.089 |
| YDR140W | 34074 | | biological_process unknown | 4260 | 1.223 | 3 | 6 | 0 | | |
| YNL184C | 32028 | | | 4261 | 1.224 | 3 | 9 | 0 | | |
| YLR287C- | 35197 | RPS30A | protein biosynthesis | 4262 | 1.226 | 4 | 15 | 0 | 0.165 | 0.025 |
| YEL033W | 30274 | | | 4263 | 1.227 | 4 | 11 | 0 | 0.095 | 0.004 |

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|---|---|---|---|---|---|---|---|---|---|---|
| YDR332W | 33691 | | biological_process unknown | 4264 | 1.229 | 3 | 6 | 0 | | |
| YPL078C | 37343 | ATP4 | ATP synthesis coupled proton tı | 4265 | 1.231 | 4 | 11 | 0 | 0.264 | 0.016 |
| YGL211W | 34577 | | biological_process unknown | 4266 | 1.232 | 4 | 8 | 0 | 0.162 | 0.049 |
| YLR192C | 36704 | HCR1 | protein biosynthesis | 4267 | 1.232 | 3 | 6 | 0 | | |
| YHR067W | 36615 | RMD12 | biological_process unknown | 4268 | 1.233 | 4 | 16 | 0 | 0.141 | 0.047 |
| YOL049W | 31740 | GSH2 | glutathione biosynthesis | 4269 | 1.235 | 4 | 8 | 0 | 0.284 | 0.070 |
| YHR203C | 32897 | RPS4B | protein biosynthesis | 4270 | 1.235 | 4 | 15 | 0 | 0.226 | 0.012 |
| YMR098C | 36538 | | biological_process unknown | 4271 | 1.236 | 4 | 11 | 0 | 0.019 | 0.032 |
| YPR057W | 35476 | BRR1 | spliceosome assembly | 4272 | 1.240 | 4 | 11 | 0 | 0.074 | 0.060 |
| YNL120C | 37243 | | | 4273 | 1.241 | 3 | 9 | 0 | | |
| YEL050C | 30291 | RML2 | protein biosynthesis* | 4274 | 1.242 | 4 | 12 | 0 | 0.043 | 0.115 |
| YNL226W | 31985 | | | 4275 | 1.248 | 4 | 14 | 0 | 0.159 | 0.031 |
| YDR337W | 33696 | MRPS28 | protein biosynthesis* | 4276 | 1.253 | 4 | 11 | 0 | 0.087 | 0.055 |
| YBR251W | 33391 | MRPS5 | protein biosynthesis | 4277 | 1.259 | 3 | 6 | 0 | | |
| YOR295W | 31591 | UAF30 | transcription from Pol I promote | 4278 | 1.261 | 4 | 11 | 0 | 0.143 | 0.015 |
| YML047C | 36729 | PRM6 | conjugation with cellular fusion | 4279 | 1.262 | 4 | 12 | 0 | 0.061 | 0.029 |
| YOR141C | 32397 | ARP8 | biological_process unknown | 4280 | 1.265 | 4 | 15 | 0 | 0.189 | 0.019 |
| YML013C- | 30561 | | | 4281 | 1.268 | 3 | 6 | 0 | | |
| YHR026W | 36609 | PPA1 | vacuolar acidification | 4282 | 1.270 | 4 | 8 | 0 | 0.001 | 0.000 |
| YLR068W | 32679 | FYV7 | processing of 20S pre-rRNA | 4283 | 1.271 | 4 | 15 | 0 | 0.217 | 0.085 |
| YNL315C | 37387 | ATP11 | protein complex assembly | 4284 | 1.272 | 4 | 16 | 0 | 0.028 | 0.048 |
| YDR417C | 37258 | | | 4285 | 1.272 | 3 | 6 | 0 | | |
| YOR182C | 32438 | RPS30B | protein biosynthesis | 4286 | 1.275 | 4 | 15 | 0 | 0.251 | 0.137 |
| YNL227C | 31986 | | endocytosis | 4287 | 1.275 | 4 | 14 | 0 | 0.321 | 0.091 |
| YMR072W | 36205 | ABF2 | mitochondrial genome maintena | 4288 | 1.282 | 4 | 12 | 0 | 0.024 | 0.032 |
| YBR039W | 33176 | ATP3 | ATP synthesis coupled proton tı | 4289 | 1.284 | 3 | 6 | 0 | | |
| YLR185W | 34134 | RPL37A | protein biosynthesis | 4290 | 1.286 | 3 | 6 | 0 | | |
| YHR066W | 31894 | SSF1 | ribosomal large subunit assemb | 4291 | 1.287 | 4 | 11 | 0 | -0.070 | 0.022 |
| YBR181C | 33321 | RPS6B | protein biosynthesis | 4292 | 1.295 | 4 | 12 | 0 | 0.133 | 0.119 |
| YKL138C | 34988 | MRPL31 | protein biosynthesis | 4293 | 1.297 | 3 | 6 | 0 | | |
| YJL117W | 31308 | PHO86 | secretory pathway* | 4294 | 1.300 | 4 | 8 | 0 | 0.088 | 0.164 |
| YGL219C | 36976 | MDM34 | mitochondrion organization and | 4295 | 1.309 | 4 | 8 | 0 | 0.078 | 0.056 |
| YBR026C | 33163 | ETR1 | aerobic respiration* | 4296 | 1.320 | 4 | 8 | 0 | 0.131 | 0.104 |
| YER056C- | 30192 | RPL34A | protein biosynthesis | 4297 | 1.322 | 4 | 15 | 0 | 0.343 | 0.037 |
| YMR282C | 30868 | AEP2 | protein biosynthesis | 4298 | 1.329 | 3 | 6 | 0 | | |
| YCR064C | 37191 | | | 4299 | 1.336 | 4 | 14 | 0 | 0.390 | 0.034 |
| YNL148C | 32064 | ALF1 | post-chaperonin tubulin folding | 4300 | 1.339 | 4 | 11 | 0 | 0.227 | 0.028 |
| YBR267W | 33407 | | biological_process unknown | 4301 | 1.351 | 3 | 6 | 0 | | |
| YPR106W | 35522 | ISR1 | biological_process unknown | 4302 | 1.356 | 4 | 8 | 0 | 0.207 | 0.006 |
| YIL060W | 31453 | | | 4303 | 1.370 | 3 | 6 | 0 | | |
| YDR241W | 33600 | BUD26 | bud site selection | 4304 | 1.376 | 4 | 8 | 0 | 0.160 | 0.016 |
| YPR024W | 37144 | YME1 | mitochondrion organization and | 4305 | 1.381 | 4 | 11 | 0 | 0.053 | 0.018 |
| YMR287C | 30873 | MSU1 | RNA catabolism | 4306 | 1.403 | 3 | 6 | 0 | | |
| YML035C | 37055 | AMD1 | purine nucleotide metabolism | 4307 | 1.490 | 3 | 6 | 0 | | |
| YLL033W | 31521 | GON2 | biological_process unknown | 4308 | 1.641 | 3 | 6 | 0 | | |
| YOL148C | 37390 | SPT20 | histone acetylation* | | | | | | | |
| YNL284C | 37386 | MRPL10 | protein biosynthesis | | | | | | | |
| YNL220W | 37384 | ADE12 | adenosine biosynthesis | | | | | | | |
| YNL059C | 37375 | ARP5 | protein-vacuolar targeting | | | | | | | |
| YOR270C | 37328 | VPH1 | vacuolar acidification* | | | | | | | |
| YNL138W | 37316 | SRV2 | cytoskeleton organization and biogenesis* | | | | | | | |
| YJR055W | 37310 | HIT1 | aerobic respiration | | | | | | | |

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|---|---|---|---|---|---|
| YIL033C | 37300 | BCY1 | response to stress* | | |
| YGR272C | 37291 | | processing of 20S pre-rRNA | | |
| YGR162W | 37284 | TIF4631 | translational initiation | | |
| YNL080C | 37225 | | biological_process unknown | | |
| YNL073W | 37220 | MSK1 | lysyl-tRNA aminoacylation | | |
| YCR084C | 37198 | TUP1 | negative regulation of transcription | | |
| YCR047C | 37184 | BUD23 | bud site selection | | |
| YCR046C | 37183 | IMG1 | protein biosynthesis | | |
| YCR028C | 37179 | RIM1 | mitochondrial genome maintenance | | |
| YBR112C | 37161 | CYC8 | negative regulation of transcription | | |
| YPR067W | 37151 | ISA2 | iron ion transport | | |
| YPR043W | 37148 | RPL43A | protein biosynthesis | | |
| YPL268W | 37135 | PLC1 | pseudohyphal growth* | | |
| YNR052C | 37123 | POP2 | regulation of transcription from Pol II promoter* | | |
| YLR439W | 37109 | MRPL4 | protein biosynthesis | | |
| YKR085C | 37102 | MRPL20 | protein biosynthesis* | | |
| YFR019W | 37080 | FAB1 | response to stress* | | |
| YKL204W | 37036 | EAP1 | negative regulation of translation | | |
| YKL139W | 37028 | CTK1 | protein amino acid phosphorylation* | | |
| YJL189W | 37018 | RPL39 | protein biosynthesis | | |
| YJL184W | 37017 | GON7 | response to dessication | | |
| YJL140W | 37005 | RPB4 | transcription from Pol II promoter | | |
| YJL129C | 37000 | TRK1 | potassium ion homeostasis | | |
| YGR086C | 36988 | PIL1 | biological_process unknown | | |
| YDR174W | 36969 | HMO1 | plasmid maintenance | | |
| YBR189W | 36961 | RPS9B | protein biosynthesis* | | |
| YJR122W | 36925 | CAF17 | biological_process unknown | | |
| YJR113C | 36918 | RSM7 | protein biosynthesis | | |
| YJR104C | 36913 | SOD1 | zinc ion homeostasis* | | |
| YJR090C | 36902 | GRR1 | ubiquitin-dependent protein catabolism* | | |
| YAL047C | 36867 | SPC72 | mitotic chromosome segregation* | | |
| YAL016W | 36866 | TPD3 | protein biosynthesis* | | |
| YJR055W | 36853 | HIT1 | aerobic respiration | | |
| YJR030C | 36828 | | biological_process unknown | | |
| YJL029C | 36797 | VPS53 | Golgi to vacuole transport | | |
| YJL024C | 36792 | APS3 | Golgi to vacuole transport | | |
| YJL006C | 36774 | CTK2 | protein amino acid phosphorylation* | | |
| YPL183W | 36763 | GON5 | protein biosynthesis | | |
| YMR198W | 36751 | CIK1 | meiosis* | | |
| YML036W | 36725 | | biological_process unknown | | |
| YLR370C | 36714 | ARC18 | actin filament organization | | |
| YGR155W | 36696 | CYS4 | cysteine biosynthesis | 0.134 | 0.087 |
| YBR191W | 36679 | RPL21A | protein biosynthesis | | |
| YOL143C | 36652 | RIB4 | vitamin B2 biosynthesis | | |
| YHR194W | 36637 | MDM31 | mitochondrion organization and biogenesis | | |
| YHR059W | 36613 | FYV4 | biological_process unknown | | |
| YHR025W | 36608 | THR1 | methionine metabolism* | | |
| YHR008C | 36605 | SOD2 | oxygen and reactive oxygen species metabolism | | |
| YGR188C | 36589 | BUB1 | protein amino acid phosphorylation* | | |
| YMR125W | 36566 | STO1 | nuclear mRNA splicing, via spliceosome | | |
| YMR097C | 36537 | MTG1 | protein biosynthesis* | | |
| YML112W | 36512 | CTK3 | protein amino acid phosphorylation* | | |

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|---|---|---|---|---|---|
| YML094W | 36491 | GIM5 | tubulin folding | | |
| YOR096W | 36475 | RPS7A | protein biosynthesis | | |
| YMR158W | 36444 | MRPS8 | protein biosynthesis | | |
| YMR142C | 36443 | RPL13B | protein biosynthesis | | |
| YLR052W | 36441 | IES3 | biological_process unknown | | |
| YHR191C | 36421 | CTF8 | sister chromatid cohesion | | |
| YHR168W | 36417 | | biological_process unknown | | |
| YHR064C | 36414 | SSZ1 | protein biosynthesis | | |
| YHL025W | 36409 | SNF6 | chromatin modeling | | |
| YER077C | 36391 | | biological_process unknown | | |
| YOL121C | 36271 | RPS19A | protein biosynthesis | | |
| YOL086C | 36236 | ADH1 | fermentation | | |
| YMR089C | 36224 | YTA12 | protein complex assembly* | | |
| YMR078C | 36212 | CTF18 | sister chromatid cohesion | | |
| YMR066W | 36199 | SOV1 | biological_process unknown | | |
| YER154W | 36151 | OXA1 | mitochondrial translocation | | |
| YER122C | 36121 | GLO3 | ER to Golgi transport* | | |
| YMR060C | 36069 | TOM37 | outer mitochondrial membrane organization and biogenesis | 0.072 | 0.019 |
| YML010C | 36066 | | | | |
| YLR447C | 36051 | VMA6 | vacuolar acidification* | | |
| YLR435W | 36038 | TSR2 | processing of 20S pre-rRNA | | |
| YLR423C | 36026 | ATG17 | autophagy | | |
| YKR082W | 35998 | NUP133 | mRNA-nucleus export* | | |
| YIR033W | 35968 | MGA2 | positive regulation of transcription from Pol II promoter* | | |
| YIR026C | 35961 | YVH1 | meiosis* | | |
| YHR039C | 35948 | | | | |
| YGR285C | 35937 | ZUO1 | protein folding | | |
| YGR262C | 35914 | BUD32 | protein amino acid phosphorylation* | | |
| YGR261C | 35913 | APL6 | Golgi to vacuole transport | | |
| YGR219W | 35872 | | | | |
| YCR071C | 35791 | IMG2 | protein biosynthesis | | |
| YCR063W | 35784 | BUD31 | bud site selection | | |
| YCR028C | 35757 | FEN2 | pantothenate transport | | |
| YBR282W | 35730 | MRPL27 | protein biosynthesis | | |
| YBR279W | 35727 | PAF1 | RNA elongation from Pol II promoter | | |
| YBR274W | 35722 | CHK1 | protein amino acid phosphorylation* | | |
| YFR001W | 35680 | LOC1 | ribosomal large subunit biogenesis | | |
| YFL036W | 35657 | RPO41 | mitochondrial genome maintenance* | | |
| YFL023W | 35642 | BUD27 | bud site selection | | |
| YPR191W | 35606 | QCR2 | aerobic respiration* | | |
| YPR163C | 35578 | TIF3 | translational initiation | | |
| YPR159W | 35574 | KRE6 | cell wall organization and biogenesis* | | |
| YPR148C | 35563 | | biological_process unknown | | |
| YPR139C | 35554 | VPS66 | protein-vacuolar targeting | | |
| YPR135W | 35550 | CTF4 | DNA repair* | | |
| YPR132W | 35547 | RPS23B | protein biosynthesis* | | |
| YPR131C | 35546 | NAT3 | N-terminal peptidyl-methionine acetylation | | |
| YPR125W | 35540 | | biological_process unknown | | |
| YPR116W | 35532 | | biological_process unknown | | |
| YPR101W | 35518 | SNT309 | nuclear mRNA splicing, via spliceosome | | |
| YPR100W | 35517 | MRPL51 | protein biosynthesis* | | |
| YPR099C | 35516 | | | | |

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|---|---|---|---|---|---|
| YPR072W | 35491 | NOT5 | regulation of transcription from Pol II promoter* | | |
| YPR047W | 35466 | MSF1 | protein biosynthesis | | |
| YPR044C | 35463 | | | | |
| YNR036C | 35411 | | biological_process unknown | | |
| YNR023W | 35398 | SNF12 | chromatin modeling | | |
| YNL005C | 35333 | MRP7 | protein biosynthesis | | |
| YNL003C | 35331 | PET8 | transport | | |
| YLR403W | 35312 | SFP1 | regulation of cell size | | |
| YLR399C | 35308 | BDF1 | sporulation (sensu Saccharomyces) | | |
| YLR373C | 35282 | VID22 | vacuolar protein catabolism | | |
| YLR369W | 35278 | SSQ1 | DNA dependent DNA replication* | | |
| YLR357W | 35266 | RSC2 | chromatin modeling | | |
| YLR342W | 35251 | FKS1 | cell wall organization and biogenesis* | | |
| YLR338W | 35247 | | | | |
| YLR337C | 35246 | VRP1 | actin filament organization* | | |
| YLR333C | 35242 | RPS25B | protein biosynthesis | | |
| YLR322W | 35231 | VPS65 | protein-vacuolar targeting | | |
| YLR320W | 35229 | MMS22 | double-strand break repair | | |
| YLR312W | 35221 | MRPL15 | protein biosynthesis | | |
| YLR304C | 35212 | ACO1 | tricarboxylic acid cycle* | | |
| YLR295C | 35205 | ATP14 | ATP synthesis coupled proton transport | | |
| YLR270W | 35179 | DCS1 | deadenylation-dependent decapping | | |
| YLR260W | 35169 | LCB5 | response to heat* | | |
| YLR251W | 35160 | SYM1 | biological_process unknown | | |
| YLR244C | 35153 | MAP1 | proteolysis and peptidolysis | | |
| YLR242C | 35151 | ARV1 | sterol transport* | | |
| YLR240W | 35149 | VPS34 | protein amino acid phosphorylation* | | |
| YLR235C | 35144 | | | | |
| YLR234W | 35143 | TOP3 | meiotic recombination* | | |
| YLR233C | 35142 | EST1 | telomerase-dependent telomere maintenance | | |
| YKR024C | 35095 | DBP7 | 35S primary transcript processing* | | |
| YKL181W | 35031 | PRS1 | histidine biosynthesis* | | |
| YKL170W | 35020 | MRPL38 | protein biosynthesis | | |
| YKL169C | 35019 | | | | |
| YKL143W | 34993 | LTV1 | biological_process unknown | -0.418 | 0.053 |
| YKL134C | 34984 | OCT1 | iron ion homeostasis* | | |
| YKL119C | 34969 | VPH2 | protein complex assembly* | | |
| YKL118W | 34968 | | | | |
| YKL080W | 34929 | VMA5 | vacuolar acidification | | |
| YKL073W | 34922 | LHS1 | protein transport* | | |
| YKL057C | 34906 | NUP120 | mRNA-nucleus export* | | |
| YKL054C | 34903 | DEF1 | ubiquitin-dependent protein catabolism* | | |
| YKL009W | 34858 | MRT4 | rRNA processing* | | |
| YKL006W | 34855 | RPL14A | protein biosynthesis | | |
| YKL003C | 34851 | MRP17 | protein biosynthesis | | |
| YGR215W | 34845 | RSM27 | protein biosynthesis | | |
| YGR180C | 34810 | RNR4 | DNA replication | | |
| YGR167W | 34797 | CLC1 | vesicle-mediated transport | | |
| YGR165W | 34795 | MRPS35 | protein biosynthesis* | | |
| YGR160W | 34790 | | | | |
| YGR159C | 34789 | NSR1 | rRNA processing* | | |
| YGR104C | 34734 | SRB5 | transcription from Pol II promoter | | |

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|---|---|---|---|---|---|
| YGR101W | 34731 | PCP1 | mitochondrion organization and biogenesis* | | |
| YGR036C | 34666 | CAX4 | N-linked glycosylation* | | |
| YGR020C | 34650 | VMA7 | vacuolar acidification | | |
| YGR016W | 34646 | | biological_process unknown | | |
| YGR006W | 34636 | PRP18 | nuclear mRNA splicing, via spliceosome | -0.345 | 0.040 |
| YGL246C | 34613 | RAI1 | RNA catabolism* | | |
| YGL240W | 34607 | DOC1 | ubiquitin-dependent protein catabolism* | | |
| YGL220W | 34586 | | biological_process unknown | | |
| YGL218W | 34584 | | | | |
| YGL206C | 34572 | CHC1 | vesicle-mediated transport | | |
| YGL200C | 34567 | EMP24 | ER to Golgi transport* | | |
| YGL195W | 34562 | GCN1 | regulation of translational elongation | | |
| YGL167C | 34534 | PMR1 | secretory pathway* | | |
| YGL143C | 34510 | MRF1 | protein biosynthesis* | | |
| YGL135W | 34502 | RPL1B | protein biosynthesis | | |
| YGL129C | 34496 | RSM23 | protein biosynthesis | | |
| YGL118C | 34485 | | | | |
| YGL105W | 34472 | ARC1 | tRNA-nucleus export* | | |
| YGL104C | 34471 | VPS73 | protein-vacuolar targeting | | |
| YGL088W | 34455 | | | | |
| YGL076C | 34443 | RPL7A | protein biosynthesis | | |
| YGL071W | 34438 | RCS1 | positive regulation of transcription from Pol II promoter* | | |
| YGL070C | 34437 | RPB9 | transcription from Pol II promoter | | |
| YGL058W | 34425 | RAD6 | ubiquitin-dependent protein catabolism* | | |
| YGL041C | 34409 | | | | |
| YGL038C | 34406 | OCH1 | N-linked glycoprotein maturation | | |
| YGL036W | 34404 | | biological_process unknown | | |
| YGL025C | 34393 | PGD1 | transcription from Pol II promoter | | |
| YGL023C | 34391 | PIB2 | vesicle-mediated transport | | |
| YGL020C | 34388 | MDM39 | mitochondrion organization and biogenesis | | |
| YDR533C | 34367 | | biological_process unknown | | |
| YDR532C | 34366 | | biological_process unknown | | |
| YDR529C | 34363 | QCR7 | aerobic respiration* | | |
| YDR519W | 34353 | FPR2 | biological_process unknown | | |
| YDR509W | 34343 | | | | |
| YDR507C | 34341 | GIN4 | protein amino acid phosphorylation* | | |
| YDR500C | 34334 | RPL37B | protein biosynthesis | | |
| YDR470C | 34304 | UGO1 | transport* | | |
| YDR450W | 34284 | RPS18A | protein biosynthesis | | |
| YDR448W | 34282 | ADA2 | histone acetylation* | | |
| YDR446W | 34280 | ECM11 | cell wall organization and biogenesis | | |
| YDR433W | 34269 | | | | |
| YDR432W | 34268 | NPL3 | mRNA-nucleus export | | |
| YDR418W | 34254 | RPL12B | protein biosynthesis* | | |
| YDR405W | 34241 | MRP20 | protein biosynthesis | | |
| YDR401W | 34237 | | | | |
| YDR388W | 34224 | RVS167 | endocytosis* | | |
| YDR382W | 34218 | RPP2B | protein biosynthesis* | | |
| YDR378C | 34214 | LSM6 | nuclear mRNA splicing, via spliceosome | | |
| YDR377W | 34213 | ATP17 | ATP synthesis coupled proton transport | | |
| YDR369C | 34205 | XRS2 | double-strand break repair via nonhomologous end-joining* | | |
| YDR363W | 34200 | ESC2 | chromatin silencing at HML and HMR (sensu Saccharomyces) | | |

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|---|---|---|---|
| YDR359C | 34196 | VID21 | biological_process unknown |
| YDR350C | 34187 | TCM10 | protein complex assembly |
| YDR347W | 34184 | MRP1 | protein biosynthesis |
| YLR226W | 34175 | BUR2 | transcription* |
| YLR149C | 34106 | | biological_process unknown |
| YLR139C | 34096 | SLS1 | protein biosynthesis* |
| YDR138W | 34072 | HPR1 | mRNA-nucleus export* |
| YDR129C | 34063 | SAC6 | actin filament organization* |
| YDR115W | 34049 | | aerobic respiration |
| YDR114C | 34048 | | |
| YDR101C | 34036 | ARX1 | ribosomal large subunit biogenesis |
| YDR092W | 34027 | UBC13 | protein monoubiquitination* |
| YDR080W | 34015 | VPS41 | protein transport* |
| YDR076W | 34011 | RAD55 | DNA recombinase assembly* |
| YDR069C | 34004 | DOA4 | protein deubiquitination* |
| YDR065W | 34000 | | biological_process unknown |
| YDR027C | 33966 | VPS54 | Golgi to vacuole transport |
| YDR025W | 33964 | RPS11A | protein biosynthesis* |
| YDR024W | 33963 | FYV1 | biological_process unknown |
| YDL232W | 33929 | OST4 | N-linked glycosylation |
| YDL206W | 33904 | | biological_process unknown |
| YDL198C | 33896 | YHM1 | transport* |
| YDL191W | 33889 | RPL35A | protein biosynthesis |
| YDL151C | 33849 | BUD30 | bud site selection |
| YDL117W | 33814 | CYK3 | cytokinesis |
| YDL116W | 33813 | NUP84 | mRNA-nucleus export* |
| YDL115C | 33812 | IWR1 | biological_process unknown |
| YDL107W | 33804 | MSS2 | protein complex assembly* |
| YDL106C | 33803 | PHO2 | transcription* |
| YDL090C | 33787 | RAM1 | protein amino acid farnesylation |
| YDL083C | 33780 | RPS16B | protein biosynthesis |
| YDL081C | 33778 | RPP1A | protein biosynthesis* |
| YDL077C | 33774 | VAM6 | homotypic vacuole fusion (non-autophagic)* |
| YDL075W | 33772 | RPL31A | protein biosynthesis |
| YDL056W | 33753 | MBP1 | regulation of cell cycle* |
| YDL047W | 33744 | SIT4 | cell wall organization and biogenesis* |
| YDL045W | 33742 | MRP10 | protein biosynthesis |
| YDL044C | 33740 | MTF2 | protein biosynthesis* |
| YDL032W | 33728 | | |
| YDL013W | 33709 | HEX3 | sporulation (sensu Saccharomyces)* |
| YDL006W | 33702 | PTC1 | response to osmotic stress* |
| YDR322W | 33681 | MRPL35 | protein biosynthesis |
| YDR320C | 33679 | SWA2 | ER organization and biogenesis |
| YDR300C | 33659 | PRO1 | proline biosynthesis |
| YDR298C | 33657 | ATP5 | ATP synthesis coupled proton transport |
| YDR296W | 33655 | MHR1 | mitochondrial genome maintenance |
| YDR268W | 33627 | MSW1 | tryptophanyl-tRNA aminoacylation |
| YDR264C | 33623 | AKR1 | endocytosis* |
| YDR245W | 33604 | MNN10 | actin filament organization* |
| YDR226W | 33585 | ADK1 | cell proliferation |
| YDR194C | 33553 | MSS116 | RNA splicing |
| YDR192C | 33551 | NUP42 | mRNA-nucleus export* |

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|---|---|---|---|
| YDR191W | 33550 | HST4 | chromatin silencing at telomere* |
| YDR186C | 33545 | | biological_process unknown |
| YDR185C | 33544 | | biological_process unknown |
| YDR176W | 33534 | NGG1 | histone acetylation* |
| YDR175C | 33533 | RSM24 | protein biosynthesis* |
| YDR173C | 33531 | ARG82 | arginine metabolism* |
| YDR171W | 33529 | HSP42 | response to stress* |
| YDR161W | 33519 | | biological_process unknown |
| YDR159W | 33517 | SAC3 | mRNA-nucleus export* |
| YBR268W | 33408 | MRPL37 | protein biosynthesis |
| YBR266C | 33406 | | |
| YBR194W | 33334 | SOY1 | biological_process unknown |
| YBR179C | 33319 | FZO1 | mitochondrion organization and biogenesis* |
| YBR178W | 33318 | | |
| YBR171W | 33311 | SEC66 | SRP-dependent cotranslational membrane targeting, translocation |
| YBR170C | 33310 | NPL4 | mRNA-nucleus export* |
| YBR163W | 33303 | DEM1 | biological_process unknown |
| YBR156C | 33295 | SLI15 | protein amino acid phosphorylation* |
| YBR146W | 33285 | MRPS9 | protein biosynthesis |
| YBR127C | 33266 | VMA2 | vacuolar acidification |
| YBR126C | 33265 | TPS1 | response to stress* |
| YBR097W | 33236 | VPS15 | protein amino acid phosphorylation* |
| YBR081C | 33218 | SPT7 | protein complex assembly* |
| YBR038W | 33175 | CHS2 | response to osmotic stress* |
| YBR035C | 33172 | PDX3 | fatty acid metabolism |
| YBR021W | 33158 | FUR4 | uracil transport |
| YBR017C | 33154 | KAP104 | protein-nucleus import* |
| YBL100C | 33126 | | |
| YBL099W | 33125 | ATP1 | ATP synthesis coupled proton transport |
| YBL093C | 33119 | ROX3 | transcription from Pol II promoter |
| YBL058W | 33084 | SHP1 | sporulation (sensu Saccharomyces)* |
| YBL045C | 33071 | COR1 | aerobic respiration |
| YBL038W | 33064 | MRPL16 | protein biosynthesis |
| YBL033C | 33059 | RIB1 | vitamin B2 biosynthesis |
| YNL054W | 33021 | VAC7 | vacuole inheritance* |
| YNL064C | 33012 | YDJ1 | protein-mitochondrial targeting |
| YNL081C | 32995 | SWS2 | biological_process unknown |
| YNL133C | 32943 | FYV6 | double-strand break repair via nonhomologous end-joining |
| YNL139C | 32937 | RLR1 | mRNA-nucleus export* |
| YHR183W | 32877 | GND1 | glucose metabolism |
| YHR178W | 32872 | STB5 | response to xenobiotic stimulus |
| YHR147C | 32841 | MRPL6 | protein biosynthesis |
| YPL005W | 32823 | | biological_process unknown |
| YPL024W | 32804 | NCE4 | biological_process unknown |
| YPL029W | 32799 | SUV3 | RNA catabolism |
| YPL031C | 32797 | PHO85 | protein amino acid phosphorylation* |
| YPL040C | 32788 | ISM1 | protein biosynthesis* |
| YPL045W | 32783 | VPS16 | protein-vacuolar targeting* |
| YPL050C | 32778 | MNN9 | N-linked glycosylation |
| YPL059W | 32769 | GRX5 | response to osmotic stress* |
| YPL069C | 32759 | BTS1 | terpenoid biosynthesis |
| YPL090C | 32738 | RPS6A | protein biosynthesis |

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|---|---|---|---|---|---|
| YLR091W | 32702 | | biological_process unknown | | |
| YLR089C | 32700 | | biological_process unknown | | |
| YLR074C | 32685 | BUD20 | bud site selection | | |
| YLR069C | 32680 | MEF1 | translational elongation | | |
| YLR062C | 32673 | BUD28 | bud site selection | | |
| YLR048W | 32659 | RPS0B | protein biosynthesis* | | |
| YJR105W | 32583 | ADO1 | purine base metabolism | | |
| YOR258W | 32514 | HNT3 | biological_process unknown | | |
| YOR241W | 32497 | MET7 | one-carbon compound metabolism | | |
| YOR201C | 32457 | PET56 | rRNA modification | | |
| YOR199W | 32455 | | | | |
| YOR196C | 32452 | LIP5 | fatty acid metabolism | | |
| YOR153W | 32409 | PDR5 | response to drug* | | |
| YIL134W | 32293 | FLX1 | mitochondrial transport | | |
| YIL128W | 32287 | MET18 | transcription from Pol II promoter* | | |
| YPL097W | 32155 | MSY1 | amino acid activation | | |
| YPL104W | 32148 | MSD1 | protein biosynthesis | | |
| YPL106C | 32146 | SSE1 | protein folding | | |
| YPL118W | 32134 | MRP51 | protein biosynthesis* | | |
| YPL125W | 32127 | KAP120 | protein-nucleus import | | |
| YPL129W | 32123 | TAF14 | transcription initiation from Pol II promoter* | | |
| YPL157W | 32095 | TGS1 | snRNA capping | | |
| YPL173W | 32079 | MRPL40 | protein biosynthesis | | |
| YNL225C | 31987 | CNM67 | microtubule nucleation | | |
| YNL228W | 31984 | | | | |
| YNL229C | 31983 | URE2 | regulation of nitrogen utilization | | |
| YNL243W | 31969 | SLA2 | cell wall organization and biogenesis* | | |
| YHR120W | 31948 | MSH1 | DNA repair | | |
| YHR091C | 31919 | MSR1 | protein biosynthesis* | | |
| YHR050W | 31878 | SMF2 | manganese ion transport | | |
| YOR080W | 31856 | DIA2 | invasive growth | | |
| YOR073W | 31849 | | biological_process unknown | | |
| YOR035C | 31811 | SHE4 | actin cytoskeleton organization and biogenesis* | -0.206 | 0.018 |
| YOR026W | 31802 | BUB3 | mitotic spindle checkpoint | | |
| YOR001W | 31777 | RRP6 | 35S primary transcript processing | | |
| YOL072W | 31764 | THP1 | bud site selection* | 0.180 | 0.070 |
| YOL067C | 31759 | RTG1 | transcription initiation from Pol II promoter* | | |
| YOL051W | 31742 | GAL11 | transcription from Pol II promoter | | |
| YOL033W | 31724 | MSE1 | protein biosynthesis* | | |
| YOL023W | 31714 | IFM1 | translational initiation | | |
| YOL009C | 31700 | MDM12 | mitochondrion organization and biogenesis* | | |
| YOR383C | 31680 | FIT3 | siderochrome transport | | |
| YOR331C | 31628 | | | | |
| YOR323C | 31620 | PRO2 | proline biosynthesis | | |
| YOR312C | 31609 | RPL20B | protein biosynthesis | | |
| YOR301W | 31597 | RAX1 | bud site selection | | |
| YOR293W | 31589 | RPS10A | protein biosynthesis | | |
| YOR291W | 31587 | | biological_process unknown | | |
| YLL027W | 31515 | ISA1 | iron ion transport | | |
| YLL006W | 31494 | MMM1 | mitochondrion organization and biogenesis* | | |
| YLL002W | 31490 | RTT109 | negative regulation of DNA transposition | | |
| YIL090W | 31481 | | biological_process unknown | | |

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|---|---|---|---|---|---|
| YIL070C | 31463 | MAM33 | aerobic respiration | | |
| YIL049W | 31442 | DFG10 | pseudohyphal growth | | |
| YIL040W | 31433 | APQ12 | biological_process unknown | | |
| YIL036W | 31429 | CST6 | transcription initiation from Pol II promoter* | | |
| YIL034C | 31427 | CAP2 | cell wall organization and biogenesis* | 0.001 | 0.068 |
| YIL015C-A | 31407 | | | | |
| YIL008W | 31400 | URM1 | protein modification | | |
| YJL056C | 31367 | ZAP1 | regulation of transcription from Pol II promoter* | | |
| YJL059W | 31364 | YHC3 | intracellular protein transport* | | |
| YJL063C | 31360 | MRPL8 | protein biosynthesis* | | |
| YJL075C | 31348 | APQ13 | biological_process unknown | | |
| YJL088W | 31335 | ARG3 | arginine biosynthesis* | | |
| YJL096W | 31327 | MRPL49 | protein biosynthesis | | |
| YJL102W | 31321 | MEF2 | translational elongation | | |
| YJL115W | 31310 | ASF1 | DNA damage response, signal transduction resulting in induction of apoptosis | | |
| YJL120W | 31304 | | | | |
| YJL127C | 31298 | SPT10 | chromatin modeling* | | |
| YJL176C | 31250 | SWI3 | chromatin modeling | | |
| YJL188C | 31237 | BUD19 | bud site selection | | |
| YNL246W | 31198 | VPS75 | protein-vacuolar targeting | | |
| YNL248C | 31196 | RPA49 | transcription from Pol I promoter | | |
| YNL277W | 31167 | MET2 | methionine biosynthesis* | | |
| YNL280C | 31164 | ERG24 | ergosterol biosynthesis | | |
| YNL297C | 31148 | MON2 | protein-vacuolar targeting* | | |
| YPL188W | 31104 | POS5 | response to oxidative stress* | | |
| YPL193W | 31099 | RSA1 | ribosomal large subunit assembly and maintenance | | |
| YPL213W | 31079 | LEA1 | nuclear mRNA splicing, via spliceosome | | |
| YPL239W | 31053 | YAR1 | biological_process unknown | | |
| YPL254W | 31038 | HFI1 | transcription from Pol II promoter* | | |
| YPL260W | 31031 | | biological_process unknown | | |
| YPL271W | 31021 | ATP15 | ATP synthesis coupled proton transport | | |
| YHR038W | 31001 | RRF1 | protein biosynthesis | | |
| YHR021C | 30984 | RPS27B | protein biosynthesis | | |
| YHR011W | 30974 | DIA4 | aerobic respiration* | | |
| YHR010W | 30973 | RPL27A | protein biosynthesis | | |
| YMR304W | 30892 | UBP15 | protein deubiquitination | | |
| YMR293C | 30880 | | aerobic respiration | | |
| YMR267W | 30853 | PPA2 | respiratory gaseous exchange | | |
| YMR266W | 30852 | RSN1 | biological_process unknown | | |
| YMR257C | 30843 | PET111 | protein biosynthesis | | |
| YMR228W | 30814 | MTF1 | transcription from mitochondrial promoter | | |
| YMR224C | 30810 | MRE11 | DNA repair* | | |
| YMR205C | 30791 | PFK2 | glycolysis | | |
| YMR202W | 30788 | ERG2 | ergosterol biosynthesis | | |
| YMR193W | 30778 | MRPL24 | protein biosynthesis | | |
| YMR188C | 30773 | MRPS17 | protein biosynthesis* | | |
| YMR165C | 30748 | SMP2 | aerobic respiration* | | |
| YMR041C | 30617 | | biological_process unknown | | |
| YMR032W | 30608 | HOF1 | cytokinesis | | |
| YMR024W | 30599 | MRPL3 | protein biosynthesis | | |
| YMR014W | 30589 | BUD22 | bud site selection | | |
| YMR002W | 30577 | | biological_process unknown | | |

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|---|---|---|---|
| YML008C | 30568 | ERG6 | ergosterol biosynthesis |
| YML024W | 30549 | RPS17A | protein biosynthesis* |
| YML032C | 30540 | RAD52 | double-strand break repair via break-induced replication* |
| YML034W | 30537 | SRC1 | mitotic sister chromatid separation |
| YML061C | 30509 | PIF1 | DNA recombination* |
| YML063W | 30507 | RPS1B | protein biosynthesis |
| YAL010C | 30398 | MDM10 | mitochondrion organization and biogenesis* |
| YAL013W | 30395 | DEP1 | regulation of transcription from Pol II promoter* |
| YAL035W | 30371 | FUN12 | translational initiation |
| YAL039C | 30367 | CYC3 | cytochrome c-heme linkage |
| YER014W | 30336 | HEM14 | heme biosynthesis |
| YER004W | 30325 | | biological_process unknown |
| YEL051W | 30292 | VMA8 | vacuolar acidification |
| YEL046C | 30287 | GLY1 | threonine catabolism* |
| YEL045C | 30286 | | |
| YEL044W | 30285 | IES6 | biological_process unknown |
| YEL029C | 30270 | BUD16 | bud site selection |
| YER086W | 30226 | ILV1 | branched chain family amino acid biosynthesis |
| YER070W | 30210 | RNR1 | DNA replication |
| YER068W | 30207 | MOT2 | regulation of transcription from Pol II promoter* |
| YER054C | 30189 | GIP2 | protein amino acid dephosphorylation |
| YER050C | 30185 | RSM18 | protein biosynthesis |
| YER044C | 30177 | ERG28 | ergosterol biosynthesis |
| YER028C | 30160 | MIG3 | transcription initiation |
| YER017C | 30148 | AFG3 | protein complex assembly* |
| YER014C- | 30145 | BUD25 | bud site selection |

| n | F | arn2 | SD | n | F | arn3 | SD | n | F | arn4 | SD | n | F | FITNESS pval |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4 | | -1.286 | 0.115 | 4 | 1 | -1.410 | 0.182 | 4 | 3 | -1.299 | 0.140 | 4 | | 0.000232072 |
| 4 | | -0.872 | 0.119 | 4 | | -0.869 | 0.141 | 4 | | -0.640 | 0.078 | 4 | | 0.000464145 |
| 3 | | -0.875 | 0.076 | 3 | | -0.777 | 0.052 | 3 | | -0.579 | 0.023 | 3 | | 0.000696217 |
| 4 | | -0.623 | 0.022 | 4 | | -0.923 | 0.059 | 4 | | -1.018 | 0.057 | 4 | 3 | 0.00092829 |
| 4 | 1 | -0.714 | 0.106 | 4 | | -0.848 | 0.095 | 4 | 1 | -0.891 | 0.105 | 4 | 1 | 0.001160362 |
| 2 | | -0.709 | 0.046 | 2 | | -0.964 | 0.087 | 2 | | -0.735 | 0.042 | 2 | | 0.001392434 |
| 4 | | -0.307 | 0.042 | 4 | | -0.719 | 0.068 | 4 | | -0.963 | 0.185 | 4 | 1 | 0.001624507 |
| 4 | | -0.502 | 0.017 | 4 | | -0.725 | 0.053 | 4 | | -0.635 | 0.059 | 4 | | 0.001856579 |
| 4 | 1 | -0.497 | 0.087 | 4 | 4 | -0.437 | 0.090 | 4 | 4 | -0.485 | 0.074 | 4 | 4 | 0.002088652 |
| 3 | | -0.488 | 0.078 | 3 | 1 | -0.544 | 0.098 | 3 | 1 | -0.505 | 0.068 | 3 | 1 | 0.002320724 |
| 3 | 1 | -0.429 | 0.084 | 4 | 2 | -0.455 | 0.064 | 4 | 2 | -0.423 | 0.051 | 4 | 2 | 0.002552796 |
| 3 | | -0.388 | 0.161 | 4 | | -0.462 | 0.200 | 4 | | -0.475 | 0.217 | 4 | | 0.002784869 |
| 3 | | -0.416 | 0.110 | 4 | 1 | -0.468 | 0.159 | 4 | 2 | -0.519 | 0.173 | 4 | 2 | 0.003016941 |
| | | -0.370 | 0.141 | 3 | 3 | -0.348 | 0.138 | 3 | 3 | -0.355 | 0.158 | 3 | 3 | 0.003249014 |
| 2 | | -0.267 | 0.086 | 3 | | -0.401 | 0.157 | 3 | | -0.452 | 0.169 | 3 | | 0.003481086 |
| | | -0.236 | 0.026 | 4 | | -0.438 | 0.133 | 4 | 3 | -0.265 | 0.048 | 4 | | 0.003713159 |
| | | -0.363 | 0.130 | 3 | 1 | -0.390 | 0.137 | 3 | 2 | -0.080 | 0.015 | 3 | | 0.003945231 |
| 2 | | -0.252 | 0.032 | 2 | | -0.426 | 0.008 | 2 | | -0.495 | 0.001 | 2 | | 0.004177303 |
| 2 | | -0.257 | 0.056 | 2 | | -0.421 | 0.043 | 2 | | -0.214 | 0.014 | 2 | | 0.004409376 |
| 2 | | -0.155 | 0.014 | 2 | | -0.152 | 0.038 | 2 | | -0.641 | 0.086 | 2 | | 0.004641448 |
| 4 | | -0.261 | 0.022 | 4 | | -0.316 | 0.047 | 4 | | -0.468 | 0.012 | 4 | | 0.004873521 |
| 2 | | -0.306 | 0.013 | 2 | | -0.263 | 0.032 | 2 | | -0.113 | 0.018 | 2 | | 0.005105593 |
| 4 | | -0.224 | 0.034 | 4 | | -0.383 | 0.033 | 4 | | -0.272 | 0.037 | 4 | | 0.005337665 |
| 2 | | -0.265 | 0.061 | 3 | | -0.263 | 0.075 | 3 | | -0.417 | 0.075 | 3 | | 0.005569738 |
| 3 | | -0.079 | 0.027 | 3 | | -0.278 | 0.044 | 3 | | -0.359 | 0.045 | 3 | | 0.00580181 |
| 4 | | -0.240 | 0.020 | 4 | | -0.268 | 0.014 | 4 | | -0.302 | 0.010 | 4 | | 0.006033883 |
| 2 | | -0.268 | 0.064 | 4 | 1 | -0.221 | 0.036 | 4 | | -0.263 | 0.064 | 4 | | 0.006265955 |
| 2 | | -0.323 | 0.642 | 3 | | -0.330 | 0.663 | 3 | | -0.337 | 0.696 | 3 | | 0.006498027 |
| 3 | | -0.173 | 0.046 | 3 | | -0.390 | 0.030 | 3 | | -0.180 | 0.052 | 3 | | 0.0067301 |
| 4 | | -0.173 | 0.021 | 4 | | -0.344 | 0.021 | 4 | | -0.208 | 0.017 | 4 | | 0.006962172 |
| | | -0.064 | 0.015 | 2 | | -0.256 | 0.073 | 2 | 2 | -0.287 | 0.038 | 2 | 2 | 0.007194245 |
| 3 | | -0.256 | 0.047 | 4 | | -0.197 | 0.025 | 4 | | -0.254 | 0.060 | 4 | | 0.007426317 |
| 3 | | -0.201 | 0.039 | 4 | | -0.230 | 0.020 | 4 | | -0.202 | 0.029 | 4 | | 0.007658389 |
| 4 | | -0.261 | 0.055 | 4 | | -0.240 | 0.072 | 4 | | -0.093 | 0.041 | 4 | | 0.007890462 |
| 4 | | -0.176 | 0.054 | 4 | | -0.207 | 0.035 | 4 | | -0.189 | 0.011 | 4 | | 0.008122534 |
| 4 | | -0.174 | 0.038 | 4 | | -0.242 | 0.033 | 4 | | -0.144 | 0.027 | 4 | | 0.008354607 |
| 3 | 3 | -0.072 | 0.041 | 3 | | -0.197 | 0.025 | 3 | | -0.094 | 0.076 | 3 | | 0.008586679 |
| 2 | | -0.097 | 0.023 | 2 | | -0.206 | 0.007 | 2 | | -0.358 | 0.029 | 2 | | 0.008818751 |
| 3 | | -0.148 | 0.033 | 3 | | -0.159 | 0.039 | 3 | | -0.205 | 0.107 | 3 | | 0.009050824 |
| 3 | | -0.074 | 0.058 | 4 | | -0.378 | 0.143 | 4 | 1 | -0.298 | 0.134 | 4 | | 0.009282896 |
| 4 | | -0.199 | 0.021 | 4 | | -0.140 | 0.039 | 4 | | -0.081 | 0.033 | 4 | | 0.009514969 |
| 4 | | -0.104 | 0.047 | 4 | | -0.151 | 0.026 | 4 | | -0.373 | 0.083 | 4 | | 0.009747041 |
| 2 | | -0.147 | 0.005 | 2 | | -0.120 | 0.018 | 2 | | -0.180 | 0.017 | 2 | | 0.009979113 |
| 2 | | -0.080 | 0.014 | 2 | | -0.112 | 0.006 | 2 | | -0.495 | 0.025 | 2 | | 0.010211186 |
| 2 | | -0.076 | 0.005 | 2 | | -0.246 | 0.006 | 2 | | -0.134 | 0.026 | 2 | | 0.010443258 |
| 2 | | -0.211 | 0.030 | 3 | | -0.305 | 0.080 | 3 | | -0.056 | 0.032 | 3 | | 0.010675331 |
| | | -0.203 | 0.022 | 2 | | -0.183 | 0.010 | 2 | | -0.103 | 0.006 | 2 | | 0.010907403 |
| 4 | | -0.124 | 0.021 | 4 | | -0.141 | 0.028 | 4 | | -0.192 | 0.023 | 4 | | 0.011139476 |
| 2 | | -0.163 | 0.063 | 2 | | -0.260 | 0.154 | 2 | | -0.096 | 0.062 | 2 | | 0.011371548 |
| 3 | | -0.174 | 0.034 | 3 | | -0.143 | 0.029 | 3 | | -0.154 | 0.014 | 3 | | 0.01160362 |
| 4 | | -0.204 | 0.045 | 4 | | -0.154 | 0.052 | 4 | | -0.145 | 0.012 | 4 | | 0.011835693 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | | -0.180 | 0.059 | 2 | -0.186 | 0.025 | 2 | | -0.134 | 0.009 | 2 | | 0.012067765 |
| 3 | | -0.126 | 0.038 | 4 | -0.200 | 0.067 | 4 | | -0.224 | 0.061 | 4 | | 0.012299838 |
| 4 | | -0.137 | 0.051 | 4 | -0.086 | 0.049 | 4 | | -0.269 | 0.308 | 4 | | 0.01253191 |
| 3 | | -0.132 | 0.027 | 4 | -0.229 | 0.056 | 4 | | -0.046 | 0.020 | 4 | | 0.012763982 |
| 4 | | -0.127 | 0.059 | 4 | -0.179 | 0.021 | 4 | | -0.199 | 0.042 | 4 | | 0.012996055 |
| 4 | | -0.182 | 0.040 | 4 | -0.207 | 0.036 | 4 | | -0.043 | 0.010 | 4 | | 0.013228127 |
| | | 0.004 | 0.051 | 2 | -0.074 | 0.031 | 2 | | -0.388 | 0.156 | 2 | 1 | 0.0134602 |
| 4 | | -0.230 | 0.036 | 4 | -0.154 | 0.041 | 4 | | -0.051 | 0.019 | 4 | | 0.013692272 |
| 4 | | -0.150 | 0.086 | 4 | -0.207 | 0.077 | 4 | | -0.138 | 0.053 | 4 | | 0.013924344 |
| 4 | | -0.151 | 0.049 | 4 | -0.185 | 0.039 | 4 | | -0.105 | 0.043 | 4 | | 0.014156417 |
| 4 | | -0.147 | 0.025 | 4 | -0.131 | 0.014 | 4 | | -0.138 | 0.011 | 4 | | 0.014388489 |
| 4 | | -0.047 | 0.027 | 4 | -0.174 | 0.037 | 4 | | -0.325 | 0.030 | 4 | | 0.014620562 |
| 4 | 1 | -0.188 | 0.042 | 3 | -0.068 | 0.008 | 3 | | -0.051 | 0.028 | 3 | | 0.014852634 |
| | | -0.193 | 0.078 | 2 | -0.140 | 0.005 | 2 | | -0.098 | 0.040 | 2 | | 0.015084706 |
| 3 | | -0.171 | 0.021 | 4 | -0.273 | 0.032 | 4 | | -0.136 | 0.081 | 4 | | 0.015316779 |
| 3 | | -0.260 | 0.014 | 4 | -0.086 | 0.031 | 4 | | 0.059 | 0.034 | 4 | | 0.015548851 |
| 2 | | -0.054 | 0.020 | 4 | -0.132 | 0.045 | 4 | | -0.271 | 0.267 | 4 | | 0.015780924 |
| 4 | | -0.081 | 0.048 | 4 | -0.104 | 0.044 | 4 | | -0.219 | 0.174 | 4 | | 0.016012996 |
| 4 | | -0.067 | 0.018 | 4 | -0.239 | 0.028 | 4 | | -0.138 | 0.044 | 4 | | 0.016245068 |
| 4 | | -0.333 | 0.114 | 4 | -0.152 | 0.027 | 4 | | -0.089 | 0.036 | 4 | | 0.016477141 |
| 4 | | -0.191 | 0.095 | 4 | -0.205 | 0.102 | 4 | | -0.060 | 0.024 | 4 | | 0.016709213 |
| 4 | | -0.149 | 0.020 | 4 | -0.113 | 0.036 | 4 | | -0.124 | 0.042 | 4 | | 0.016941286 |
| 4 | | -0.198 | 0.043 | 4 | -0.187 | 0.023 | 4 | | -0.015 | 0.006 | 4 | | 0.017173358 |
| 4 | | -0.160 | 0.026 | 4 | -0.151 | 0.033 | 4 | | -0.051 | 0.032 | 4 | | 0.01740543 |
| 4 | | -0.216 | 0.054 | 4 | -0.190 | 0.022 | 4 | | -0.011 | 0.010 | 4 | | 0.017637503 |
| 4 | | -0.071 | 0.035 | 4 | -0.083 | 0.036 | 4 | | -0.241 | 0.012 | 4 | | 0.017869575 |
| 3 | | -0.208 | 0.019 | 3 | -0.074 | 0.023 | 3 | | -0.075 | 0.030 | 3 | | 0.018101648 |
| 2 | | -0.110 | 0.021 | 2 | -0.376 | 0.031 | 2 | | -0.125 | 0.022 | 2 | | 0.01833372 |
| 4 | | -0.041 | 0.016 | 4 | -0.067 | 0.038 | 4 | | -0.307 | 0.242 | 4 | | 0.018565793 |
| 4 | | -0.070 | 0.018 | 4 | -0.113 | 0.032 | 4 | | -0.308 | 0.205 | 4 | | 0.018797865 |
| 4 | | -0.164 | 0.027 | 4 | -0.154 | 0.016 | 4 | | -0.074 | 0.024 | 4 | | 0.019029937 |
| 4 | | -0.035 | 0.019 | 4 | -0.104 | 0.058 | 4 | | -0.328 | 0.356 | 4 | | 0.01926201 |
| 2 | | -0.099 | 0.040 | 3 | -0.249 | 0.068 | 3 | | -0.115 | 0.006 | 3 | | 0.019494082 |
| 4 | | -0.093 | 0.024 | 4 | -0.155 | 0.058 | 4 | | -0.172 | 0.017 | 4 | | 0.019726155 |
| 2 | | -0.135 | 0.015 | 2 | -0.130 | 0.041 | 2 | | -0.146 | 0.011 | 2 | | 0.019958227 |
| 4 | | -0.066 | 0.048 | 4 | -0.054 | 0.038 | 4 | | -0.332 | 0.304 | 4 | | 0.020190299 |
| 4 | | -0.055 | 0.021 | 4 | -0.087 | 0.035 | 4 | | -0.057 | 0.014 | 4 | | 0.020422372 |
| 4 | | -0.087 | 0.033 | 4 | -0.085 | 0.060 | 4 | | -0.271 | 0.211 | 4 | | 0.020654444 |
| 4 | | -0.157 | 0.043 | 4 | -0.128 | 0.016 | 4 | | -0.129 | 0.015 | 4 | | 0.020886517 |
| 4 | | -0.111 | 0.035 | 4 | -0.184 | 0.049 | 4 | | -0.085 | 0.030 | 4 | | 0.021118589 |
| 2 | | -0.189 | 0.006 | 2 | -0.172 | 0.014 | 2 | | -0.120 | 0.022 | 2 | | 0.021350661 |
| 4 | | -0.218 | 0.057 | 4 | -0.115 | 0.055 | 4 | | -0.114 | 0.037 | 4 | | 0.021582734 |
| 4 | | -0.145 | 0.055 | 4 | -0.161 | 0.051 | 4 | | -0.043 | 0.050 | 4 | | 0.021814806 |
| 4 | | -0.029 | 0.017 | 4 | -0.073 | 0.035 | 4 | | -0.313 | 0.164 | 4 | | 0.022046879 |
| 2 | | -0.021 | 0.043 | 2 | -0.133 | 0.014 | 2 | | -0.235 | 0.006 | 2 | | 0.022278951 |
| 4 | | -0.129 | 0.011 | 4 | -0.175 | 0.034 | 4 | | -0.052 | 0.010 | 4 | | 0.022511023 |
| 4 | | -0.071 | 0.026 | 4 | -0.142 | 0.081 | 4 | | -0.182 | 0.100 | 4 | | 0.022743096 |
| 2 | | -0.162 | 0.020 | 3 | -0.118 | 0.033 | 3 | | -0.084 | 0.036 | 3 | | 0.022975168 |
| 2 | | -0.257 | 0.006 | 2 | -0.253 | 0.002 | 2 | | -0.094 | 0.029 | 2 | | 0.023207241 |
| 4 | | -0.060 | 0.034 | 4 | -0.178 | 0.015 | 4 | | -0.096 | 0.022 | 4 | | 0.023439313 |
| 3 | | -0.107 | 0.022 | 4 | -0.267 | 0.059 | 4 | 1 | -0.159 | 0.028 | 4 | | 0.023671385 |
| 4 | | -0.142 | 0.058 | 4 | -0.172 | 0.065 | 4 | | -0.064 | 0.026 | 4 | | 0.023903458 |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | | -0.046 | 0.024 | 4 | -0.173 | 0.052 | 4 | -0.078 | 0.037 | 4 | 0.02413553 |
| 2 | | -0.126 | 0.249 | 3 | -0.074 | 0.203 | 3 | -0.225 | 0.300 | 3 | 0.024367603 |
| 4 | | -0.096 | 0.047 | 4 | -0.166 | 0.041 | 4 | -0.091 | 0.008 | 4 | 0.024599675 |
| 4 | | -0.110 | 0.054 | 4 | -0.107 | 0.025 | 4 | -0.064 | 0.047 | 4 | 0.024831748 |
| 4 | 1 | -0.254 | 0.049 | 4 | -0.114 | 0.078 | 4 | 0.037 | 0.028 | 4 | 0.02506382 |
| 2 | | -0.138 | 0.050 | 3 | -0.096 | 0.084 | 3 | -0.078 | 0.063 | 3 | 0.025295892 |
| 4 | | -0.185 | 0.030 | 4 | -0.136 | 0.019 | 4 | -0.046 | 0.013 | 4 | 0.025527965 |
| 4 | | -0.138 | 0.034 | 4 | -0.122 | 0.050 | 4 | -0.053 | 0.038 | 4 | 0.025760037 |
| 3 | | -0.037 | 0.049 | 3 | -0.043 | 0.068 | 3 | -0.307 | 0.282 | 3 | 0.02599211 |
| 4 | | -0.148 | 0.024 | 4 | -0.064 | 0.024 | 4 | -0.156 | 0.017 | 4 | 0.026224182 |
| 4 | | -0.136 | 0.086 | 4 | -0.146 | 0.033 | 4 | -0.055 | 0.041 | 4 | 0.026456254 |
| 2 | | -0.049 | 0.009 | 2 | -0.030 | 0.052 | 2 | -0.342 | 0.150 | 2 | 0.026688327 |
| | | -0.150 | 0.105 | 2 | -0.073 | 0.039 | 2 | -0.113 | 0.057 | 2 | 0.026920399 |
| 4 | | -0.095 | 0.019 | 4 | -0.145 | 0.054 | 4 | -0.084 | 0.034 | 4 | 0.027152472 |
| 2 | | -0.093 | 0.067 | 2 | -0.205 | 0.015 | 2 | -0.148 | 0.059 | 2 | 0.027384544 |
| 2 | | -0.089 | 0.038 | 3 | -0.139 | 0.053 | 3 | -0.202 | 0.119 | 3 | 0.027616616 |
| 4 | | 0.059 | 0.016 | 4 | -0.161 | 0.011 | 4 | -0.020 | 0.018 | 4 | 0.027848689 |
| 3 | | -0.097 | 0.030 | 4 | -0.008 | 0.012 | 4 | -0.214 | 0.044 | 4 | 0.028080761 |
| 4 | | -0.049 | 0.025 | 4 | -0.127 | 0.034 | 4 | -0.194 | 0.106 | 4 | 0.028312834 |
| 4 | | -0.080 | 0.046 | 4 | -0.116 | 0.009 | 4 | -0.166 | 0.064 | 4 | 0.028544906 |
| 4 | | -0.086 | 0.001 | 4 | -0.142 | 0.047 | 4 | -0.129 | 0.019 | 4 | 0.028776978 |
| 4 | | -0.079 | 0.032 | 4 | -0.127 | 0.034 | 4 | -0.113 | 0.029 | 4 | 0.029009051 |
| 4 | | -0.166 | 0.029 | 4 | -0.196 | 0.041 | 4 | 0.027 | 0.037 | 4 | 0.029241123 |
| 4 | | -0.088 | 0.026 | 4 | -0.136 | 0.049 | 4 | -0.083 | 0.023 | 4 | 0.029473196 |
| 2 | | -0.108 | 0.025 | 2 | -0.200 | 0.022 | 2 | -0.244 | 0.005 | 2 | 0.029705268 |
| 2 | | -0.125 | 0.040 | 3 | -0.146 | 0.035 | 3 | 0.017 | 0.051 | 3 | 0.02993734 |
| 4 | | -0.095 | 0.013 | 4 | -0.177 | 0.069 | 4 | -0.151 | 0.035 | 4 | 0.030169413 |
| 4 | | -0.080 | 0.020 | 4 | -0.173 | 0.041 | 4 | -0.072 | 0.025 | 4 | 0.030401485 |
| 4 | | -0.059 | 0.045 | 4 | -0.071 | 0.054 | 4 | -0.280 | 0.289 | 4 | 0.030633558 |
| 4 | | -0.105 | 0.030 | 4 | -0.154 | 0.034 | 4 | -0.069 | 0.016 | 4 | 0.03086563 |
| 4 | | -0.073 | 0.034 | 4 | -0.165 | 0.047 | 4 | -0.070 | 0.022 | 4 | 0.031097702 |
| 3 | | -0.145 | 0.050 | 4 | -0.127 | 0.039 | 4 | -0.026 | 0.022 | 4 | 0.031329775 |
| 4 | | -0.064 | 0.010 | 4 | -0.053 | 0.057 | 4 | -0.197 | 0.179 | 4 | 0.031561847 |
| 4 | | -0.023 | 0.009 | 4 | -0.075 | 0.026 | 4 | -0.382 | 0.063 | 4 | 0.03179392 |
| 4 | | -0.177 | 0.030 | 4 | -0.132 | 0.042 | 4 | 0.025 | 0.029 | 4 | 0.032025992 |
| 2 | | -0.088 | 0.027 | 2 | -0.144 | 0.065 | 2 | -0.102 | 0.038 | 2 | 0.032258065 |
| | | -0.085 | 0.045 | 2 | -0.188 | 0.038 | 2 | -0.039 | 0.003 | 2 | 0.032490137 |
| 4 | | -0.019 | 0.011 | 4 | -0.043 | 0.027 | 4 | -0.280 | 0.311 | 4 | 0.032722209 |
| 4 | | -0.062 | 0.054 | 4 | -0.131 | 0.035 | 4 | -0.145 | 0.034 | 4 | 0.032954282 |
| 4 | | 0.002 | 0.020 | 4 | -0.042 | 0.054 | 4 | -0.347 | 0.360 | 4 | 0.033186354 |
| 4 | | -0.088 | 0.039 | 4 | -0.048 | 0.088 | 4 | -0.103 | 0.024 | 4 | 0.033418427 |
| 2 | | -0.098 | 0.007 | 3 | -0.168 | 0.078 | 3 | -0.180 | 0.014 | 3 | 0.033650499 |
| 4 | | -0.167 | 0.016 | 4 | -0.095 | 0.039 | 4 | -0.010 | 0.035 | 4 | 0.033882571 |
| 4 | | -0.075 | 0.039 | 4 | -0.158 | 0.018 | 4 | -0.094 | 0.020 | 4 | 0.034114644 |
| 4 | | -0.097 | 0.021 | 4 | -0.120 | 0.029 | 4 | -0.014 | 0.025 | 4 | 0.034346716 |
| 4 | | -0.077 | 0.019 | 4 | -0.035 | 0.047 | 4 | -0.246 | 0.273 | 4 | 0.034578789 |
| 4 | | -0.080 | 0.003 | 4 | -0.115 | 0.034 | 4 | -0.095 | 0.011 | 4 | 0.034810861 |
| 4 | | -0.181 | 0.008 | 4 | -0.102 | 0.025 | 4 | -0.032 | 0.018 | 4 | 0.035042933 |
| 2 | | 0.001 | 0.025 | 2 | -0.013 | 0.021 | 2 | -0.344 | 0.078 | 2 | 0.035275006 |
| 4 | | -0.058 | 0.049 | 4 | -0.054 | 0.027 | 4 | -0.250 | 0.284 | 4 | 0.035507078 |
| 4 | | -0.093 | 0.029 | 4 | -0.131 | 0.066 | 4 | -0.091 | 0.024 | 4 | 0.035739151 |
| 2 | | -0.081 | 0.010 | 3 | -0.089 | 0.040 | 3 | -0.072 | 0.011 | 3 | 0.035971223 |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 4 | -0.038 | 0.027 | 4 | | -0.100 | 0.032 | 4 | | -0.098 | 0.043 | 4 | 0.036203295 |
| 3 | -0.072 | 0.019 | 4 | | -0.153 | 0.062 | 4 | | -0.138 | 0.050 | 4 | 0.036435368 |
| 3 | -0.113 | 0.047 | 3 | | -0.062 | 0.063 | 3 | | -0.127 | 0.114 | 3 | 0.03666744 |
| 4 | -0.083 | 0.014 | 4 | | -0.098 | 0.025 | 4 | | -0.119 | 0.033 | 4 | 0.036899513 |
| 4 | -0.085 | 0.019 | 4 | | -0.137 | 0.036 | 4 | | -0.103 | 0.045 | 4 | 0.037131585 |
| 4 | -0.028 | 0.032 | 4 | | -0.157 | 0.038 | 4 | | -0.125 | 0.021 | 4 | 0.037363657 |
| 2 | -0.095 | 0.026 | 3 | | -0.155 | 0.045 | 3 | | -0.063 | 0.060 | 3 | 0.03759573 |
| 4 | -0.025 | 0.020 | 4 | | -0.180 | 0.083 | 4 | | -0.110 | 0.062 | 4 | 0.037827802 |
| 4 | -0.057 | 0.066 | 4 | | -0.108 | 0.056 | 4 | | -0.258 | 0.262 | 4 | 0.038059875 |
| | -0.027 | 0.030 | 3 | | -0.198 | 0.094 | 3 | | -0.063 | 0.033 | 3 | 0.038291947 |
| 4 | -0.047 | 0.014 | 4 | | -0.096 | 0.035 | 4 | | -0.166 | 0.023 | 4 | 0.038524019 |
| 3 | -0.097 | 0.026 | 3 | | -0.081 | 0.022 | 3 | | -0.102 | 0.024 | 3 | 0.038756092 |
| 2 | 0.103 | 0.045 | 4 | | -0.231 | 0.033 | 4 | 2 | -0.148 | 0.033 | 4 | 0.038988164 |
| 4 | -0.064 | 0.021 | 4 | | -0.080 | 0.033 | 4 | | -0.090 | 0.036 | 4 | 0.039220237 |
| 4 | -0.035 | 0.010 | 4 | | -0.044 | 0.046 | 4 | | -0.298 | 0.340 | 4 | 0.039452309 |
| 4 | -0.093 | 0.042 | 4 | | -0.064 | 0.048 | 4 | | -0.096 | 0.040 | 4 | 0.039684382 |
| 2 | -0.050 | 0.023 | 3 | | -0.079 | 0.021 | 3 | | -0.151 | 0.020 | 3 | 0.039916454 |
| 4 | -0.069 | 0.020 | 4 | | -0.131 | 0.030 | 4 | | -0.116 | 0.047 | 4 | 0.040148526 |
| 4 | -0.115 | 0.013 | 4 | | -0.158 | 0.074 | 4 | | -0.117 | 0.028 | 4 | 0.040380599 |
| 3 | -0.081 | 0.040 | 4 | | -0.115 | 0.054 | 4 | | -0.019 | 0.012 | 4 | 0.040612671 |
| 4 | -0.070 | 0.011 | 4 | | -0.120 | 0.037 | 4 | | -0.127 | 0.005 | 4 | 0.040844744 |
| | -0.112 | 0.010 | 2 | | -0.107 | 0.051 | 2 | | -0.058 | 0.014 | 2 | 0.041076816 |
| 4 | -0.122 | 0.010 | 4 | | -0.120 | 0.036 | 4 | | -0.102 | 0.018 | 4 | 0.041308888 |
| 4 | -0.067 | 0.021 | 4 | | -0.130 | 0.043 | 4 | | -0.114 | 0.023 | 4 | 0.041540961 |
| 4 | -0.101 | 0.032 | 4 | | -0.089 | 0.023 | 4 | | -0.145 | 0.119 | 4 | 0.041773033 |
| 4 | -0.091 | 0.035 | 4 | | -0.206 | 0.052 | 4 | | -0.028 | 0.027 | 4 | 0.042005106 |
| 3 | -0.090 | 0.011 | 4 | | -0.138 | 0.041 | 4 | | -0.098 | 0.056 | 4 | 0.042237178 |
| 3 | -0.153 | 0.047 | 4 | | -0.159 | 0.033 | 4 | | -0.068 | 0.031 | 4 | 0.04246925 |
| 4 | -0.078 | 0.034 | 4 | | -0.116 | 0.049 | 4 | | -0.121 | 0.023 | 4 | 0.042701323 |
| 4 | -0.056 | 0.031 | 4 | | -0.064 | 0.031 | 4 | | -0.167 | 0.129 | 4 | 0.042933395 |
| 2 | -0.094 | 0.027 | 3 | | -0.120 | 0.050 | 3 | | -0.108 | 0.030 | 3 | 0.043165468 |
| 4 | -0.054 | 0.018 | 4 | | -0.058 | 0.043 | 4 | | -0.218 | 0.232 | 4 | 0.04339754 |
| 4 | -0.019 | 0.018 | 4 | | -0.066 | 0.043 | 4 | | -0.237 | 0.249 | 4 | 0.043629612 |
| 4 | -0.071 | 0.034 | 4 | | -0.077 | 0.020 | 4 | | -0.110 | 0.013 | 4 | 0.043861685 |
| 4 | -0.041 | 0.030 | 4 | | -0.096 | 0.045 | 4 | | -0.166 | 0.113 | 4 | 0.044093757 |
| 4 | -0.109 | 0.043 | 4 | | -0.093 | 0.039 | 4 | | -0.086 | 0.034 | 4 | 0.04432583 |
| 2 | -0.134 | 0.050 | 2 | | -0.122 | 0.012 | 2 | | -0.083 | 0.006 | 2 | 0.044557902 |
| 4 | -0.006 | 0.026 | 4 | | -0.052 | 0.035 | 4 | | -0.067 | 0.083 | 4 | 0.044789974 |
| 4 | -0.063 | 0.024 | 4 | | -0.120 | 0.048 | 4 | | -0.088 | 0.070 | 4 | 0.045022047 |
| 3 | -0.141 | 0.028 | 4 | | -0.179 | 0.023 | 4 | | 0.018 | 0.025 | 4 | 0.045254119 |
| | -0.313 | 0.104 | 3 | 1 | -0.064 | 0.049 | 3 | | 0.110 | 0.032 | 3 | 0.045486192 |
| 2 | -0.146 | 0.014 | 3 | | -0.186 | 0.054 | 3 | | -0.139 | 0.027 | 3 | 0.045718264 |
| 4 | -0.063 | 0.015 | 4 | | -0.094 | 0.058 | 4 | | -0.110 | 0.061 | 4 | 0.045950337 |
| 4 | 0.000 | 0.030 | 4 | | -0.076 | 0.066 | 4 | | -0.182 | 0.191 | 4 | 0.046182409 |
| 4 | -0.093 | 0.022 | 4 | | -0.102 | 0.030 | 4 | | -0.064 | 0.018 | 4 | 0.046414481 |
| 4 | -0.105 | 0.035 | 4 | | -0.114 | 0.062 | 4 | | -0.075 | 0.041 | 4 | 0.046646554 |
| 2 | -0.047 | 0.032 | 2 | | -0.061 | 0.010 | 2 | | -0.080 | 0.019 | 2 | 0.046878626 |
| 4 | -0.013 | 0.021 | 4 | | -0.011 | 0.025 | 4 | | -0.283 | 0.296 | 4 | 0.047110699 |
| 4 | -0.061 | 0.053 | 4 | | -0.137 | 0.045 | 4 | | -0.111 | 0.027 | 4 | 0.047342771 |
| 3 | -0.302 | 0.059 | 3 | | -0.012 | 0.036 | 3 | | 0.011 | 0.044 | 3 | 0.047574843 |
| 4 | -0.043 | 0.018 | 4 | | -0.051 | 0.048 | 4 | | -0.200 | 0.253 | 4 | 0.047806916 |
| 4 | -0.021 | 0.031 | 4 | | -0.130 | 0.032 | 4 | | -0.115 | 0.029 | 4 | 0.048038988 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 4 | -0.092 | 0.045 | 4 | -0.089 | 0.052 | 4 | -0.066 | 0.049 | 4 | 0.048271061 |
| 2 | -0.071 | 0.032 | 2 | -0.178 | 0.070 | 2 | -0.111 | 0.036 | 2 | 0.048503133 |
| 4 | -0.041 | 0.009 | 4 | -0.158 | 0.032 | 4 | -0.077 | 0.040 | 4 | 0.048735205 |
| 2 | -0.138 | 0.048 | 4 | -0.059 | 0.018 | 4 | -0.015 | 0.026 | 4 | 0.048967278 |
| 4 | -0.091 | 0.021 | 4 | -0.104 | 0.032 | 4 | -0.065 | 0.019 | 4 | 0.04919935 |
| 2 | -0.072 | 0.006 | 3 | -0.210 | 0.099 | 3 | -0.093 | 0.009 | 3 | 0.049431423 |
| 4 | -0.053 | 0.066 | 4 | -0.063 | 0.079 | 4 | -0.248 | 0.175 | 4 | 0.049663495 |
| 4 | -0.021 | 0.019 | 4 | -0.044 | 0.031 | 4 | -0.216 | 0.219 | 4 | 0.049895567 |
| 4 | -0.041 | 0.014 | 4 | -0.095 | 0.027 | 4 | -0.209 | 0.109 | 4 | 0.05012764 |
| 4 | -0.100 | 0.017 | 4 | -0.100 | 0.028 | 4 | -0.050 | 0.043 | 4 | 0.050359712 |
| 4 | -0.006 | 0.019 | 4 | -0.157 | 0.030 | 4 | -0.044 | 0.017 | 4 | 0.050591785 |
| 4 | -0.093 | 0.021 | 4 | -0.126 | 0.047 | 4 | 0.052 | 0.020 | 4 | 0.050823857 |
| 4 | -0.089 | 0.026 | 4 | -0.072 | 0.031 | 4 | -0.058 | 0.018 | 4 | 0.051055929 |
| 3 | -0.098 | 0.042 | 4 | -0.135 | 0.102 | 4 | -0.057 | 0.052 | 4 | 0.051288002 |
| 4 | -0.041 | 0.016 | 4 | -0.089 | 0.037 | 4 | -0.120 | 0.097 | 4 | 0.051520074 |
| 2 | -0.178 | 0.023 | 2 | -0.091 | 0.051 | 2 | 0.014 | 0.008 | 2 | 0.051752147 |
| 2 | -0.095 | 0.088 | 2 | -0.114 | 0.004 | 2 | -0.116 | 0.038 | 2 | 0.051984219 |
| 2 | -0.101 | 0.027 | 2 | -0.098 | 0.036 | 2 | -0.073 | 0.003 | 2 | 0.052216291 |
| 4 | -0.014 | 0.010 | 4 | -0.035 | 0.033 | 4 | -0.231 | 0.271 | 4 | 0.052448364 |
| 4 | -0.105 | 0.042 | 4 | -0.109 | 0.060 | 4 | -0.060 | 0.056 | 4 | 0.052680436 |
| 2 | -0.124 | 0.008 | 4 | -0.130 | 0.023 | 4 | -0.142 | 0.023 | 4 | 0.052912509 |
| 3 | -0.067 | 0.011 | 4 | -0.074 | 0.035 | 4 | -0.056 | 0.031 | 4 | 0.053144581 |
| 4 | -0.030 | 0.032 | 4 | -0.072 | 0.024 | 4 | -0.176 | 0.145 | 4 | 0.053376654 |
| 3 | -0.038 | 0.003 | 3 | -0.107 | 0.031 | 3 | -0.114 | 0.010 | 3 | 0.053608726 |
| 4 | -0.030 | 0.015 | 4 | -0.126 | 0.032 | 4 | -0.113 | 0.020 | 4 | 0.053840798 |
| 2 | -0.043 | 0.023 | 2 | -0.079 | 0.014 | 2 | -0.085 | 0.011 | 2 | 0.054072871 |
| 4 | -0.060 | 0.029 | 4 | -0.093 | 0.055 | 4 | -0.063 | 0.033 | 4 | 0.054304943 |
| 3 | -0.107 | 0.053 | 3 | -0.106 | 0.040 | 3 | -0.043 | 0.021 | 3 | 0.054537016 |
| 4 | -0.111 | 0.032 | 4 | -0.074 | 0.051 | 4 | -0.078 | 0.019 | 4 | 0.054769088 |
| 4 | -0.029 | 0.022 | 4 | -0.054 | 0.046 | 4 | -0.169 | 0.151 | 4 | 0.05500116 |
| 4 | -0.020 | 0.005 | 4 | -0.064 | 0.030 | 4 | -0.199 | 0.199 | 4 | 0.055233233 |
| 4 | -0.054 | 0.036 | 4 | -0.088 | 0.072 | 4 | -0.124 | 0.045 | 4 | 0.055465305 |
| 4 | -0.030 | 0.009 | 4 | -0.081 | 0.034 | 4 | -0.058 | 0.029 | 4 | 0.055697378 |
| 3 | -0.049 | 0.011 | 3 | -0.055 | 0.044 | 3 | -0.062 | 0.057 | 3 | 0.05592945 |
| 2 | -0.106 | 0.009 | 2 | -0.105 | 0.026 | 2 | -0.107 | 0.019 | 2 | 0.056161522 |
| | -0.099 | 0.030 | 2 | -0.090 | 0.014 | 2 | -0.052 | 0.015 | 2 | 0.056393595 |
| 4 | -0.044 | 0.036 | 4 | -0.066 | 0.041 | 4 | -0.165 | 0.048 | 4 | 0.056625667 |
| 4 | -0.014 | 0.028 | 4 | -0.020 | 0.053 | 4 | -0.212 | 0.208 | 4 | 0.05685774 |
| 4 | -0.045 | 0.035 | 4 | -0.070 | 0.039 | 4 | -0.112 | 0.032 | 4 | 0.057089812 |
| 4 | -0.029 | 0.011 | 4 | -0.049 | 0.031 | 4 | -0.116 | 0.072 | 4 | 0.057321884 |
| 4 | -0.055 | 0.044 | 4 | -0.126 | 0.032 | 4 | -0.067 | 0.040 | 4 | 0.057553957 |
| 4 | -0.031 | 0.028 | 4 | -0.032 | 0.040 | 4 | -0.267 | 0.302 | 4 | 0.057786029 |
| | -0.145 | 0.065 | 3 | -0.076 | 0.050 | 3 | -0.018 | 0.031 | 3 | 0.058018102 |
| 4 | 0.013 | 0.042 | 4 | -0.112 | 0.045 | 4 | -0.162 | 0.020 | 4 | 0.058250174 |
| 4 | 0.016 | 0.020 | 4 | -0.034 | 0.019 | 4 | -0.298 | 0.329 | 4 | 0.058482246 |
| 4 | -0.020 | 0.021 | 4 | -0.063 | 0.059 | 4 | -0.039 | 0.041 | 4 | 0.058714319 |
| 3 | -0.083 | 0.040 | 4 | -0.080 | 0.032 | 4 | -0.140 | 0.045 | 4 | 0.058946391 |
| 4 | -0.063 | 0.023 | 4 | -0.103 | 0.043 | 4 | -0.075 | 0.051 | 4 | 0.059178464 |
| 4 | -0.012 | 0.043 | 4 | -0.044 | 0.049 | 4 | -0.252 | 0.289 | 4 | 0.059410536 |
| 4 | -0.026 | 0.038 | 4 | -0.059 | 0.020 | 4 | -0.143 | 0.093 | 4 | 0.059642608 |
| 3 | -0.044 | 0.013 | 4 | -0.115 | 0.044 | 4 | -0.008 | 0.030 | 4 | 0.059874681 |
| 4 | -0.123 | 0.029 | 4 | -0.092 | 0.044 | 4 | 0.035 | 0.023 | 4 | 0.060106753 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 4 | | -0.128 | 0.026 | 4 | -0.132 | 0.076 | 4 | -0.064 | 0.034 | 4 | 0.060338826 |
| 4 | | -0.025 | 0.018 | 4 | -0.157 | 0.035 | 4 | -0.078 | 0.008 | 4 | 0.060570898 |
| 3 | | -0.159 | 0.083 | 3 | -0.082 | 0.080 | 3 | -0.077 | 0.066 | 3 | 0.060802971 |
| 4 | | -0.125 | 0.030 | 4 | -0.094 | 0.052 | 4 | -0.018 | 0.021 | 4 | 0.061035043 |
| 4 | | 0.001 | 0.017 | 4 | -0.123 | 0.040 | 4 | -0.057 | 0.024 | 4 | 0.061267115 |
| 2 | | -0.128 | 0.006 | 2 | -0.136 | 0.002 | 2 | 0.001 | 0.013 | 2 | 0.061499188 |
| 4 | | -0.098 | 0.021 | 4 | -0.131 | 0.042 | 4 | -0.003 | 0.013 | 4 | 0.06173126 |
| 4 | | -0.045 | 0.025 | 4 | -0.079 | 0.065 | 4 | -0.056 | 0.025 | 4 | 0.061963333 |
| 4 | | -0.028 | 0.029 | 4 | -0.060 | 0.064 | 4 | -0.177 | 0.150 | 4 | 0.062195405 |
| 4 | | -0.010 | 0.019 | 4 | -0.029 | 0.054 | 4 | -0.238 | 0.258 | 4 | 0.062427477 |
| 4 | | -0.011 | 0.014 | 4 | -0.001 | 0.049 | 4 | -0.288 | 0.350 | 4 | 0.06265955 |
| 2 | | -0.045 | 0.036 | 2 | -0.103 | 0.028 | 2 | -0.198 | 0.003 | 2 | 0.062891622 |
| 3 | | -0.009 | 0.018 | 3 | -0.011 | 0.016 | 3 | -0.193 | 0.253 | 3 | 0.063123695 |
| 4 | | -0.055 | 0.021 | 4 | -0.079 | 0.040 | 4 | -0.091 | 0.027 | 4 | 0.063355767 |
| 4 | | -0.063 | 0.020 | 4 | -0.035 | 0.054 | 4 | -0.094 | 0.019 | 4 | 0.063587839 |
| 3 | | -0.012 | 0.023 | 4 | -0.053 | 0.028 | 4 | -0.084 | 0.023 | 4 | 0.063819912 |
| 2 | | -0.042 | 0.023 | 2 | -0.146 | 0.103 | 2 | -0.093 | 0.043 | 2 | 0.064051984 |
| 4 | | -0.029 | 0.022 | 4 | -0.090 | 0.045 | 4 | -0.073 | 0.028 | 4 | 0.064284057 |
| 4 | | -0.092 | 0.025 | 4 | -0.092 | 0.043 | 4 | -0.098 | 0.017 | 4 | 0.064516129 |
| 4 | | -0.139 | 0.017 | 4 | -0.133 | 0.048 | 4 | -0.017 | 0.025 | 4 | 0.064748201 |
| 4 | | -0.020 | 0.030 | 4 | -0.054 | 0.045 | 4 | -0.220 | 0.255 | 4 | 0.064980274 |
| 4 | | -0.075 | 0.026 | 4 | -0.164 | 0.054 | 4 | -0.088 | 0.033 | 4 | 0.065212346 |
| 4 | | -0.029 | 0.013 | 4 | -0.111 | 0.047 | 4 | -0.102 | 0.056 | 4 | 0.065444419 |
| 3 | | -0.076 | 0.012 | 4 | -0.143 | 0.005 | 4 | -0.024 | 0.054 | 4 | 0.065676491 |
| 4 | | -0.054 | 0.017 | 4 | -0.085 | 0.057 | 4 | -0.177 | 0.113 | 4 | 0.065908563 |
| 4 | | -0.054 | 0.028 | 4 | -0.111 | 0.037 | 4 | -0.072 | 0.074 | 4 | 0.066140636 |
| 4 | | -0.097 | 0.043 | 4 | -0.142 | 0.041 | 4 | -0.055 | 0.022 | 4 | 0.066372708 |
| 2 | | 0.011 | 0.011 | 2 | -0.001 | 0.049 | 2 | -0.253 | 0.013 | 2 | 0.066604781 |
| 4 | | -0.103 | 0.051 | 4 | -0.119 | 0.032 | 4 | -0.021 | 0.008 | 4 | 0.066836853 |
| 4 | | -0.122 | 0.036 | 4 | -0.032 | 0.023 | 4 | -0.046 | 0.019 | 4 | 0.067068926 |
| 4 | | -0.079 | 0.018 | 4 | -0.087 | 0.027 | 4 | -0.033 | 0.024 | 4 | 0.067300998 |
| 4 | | -0.020 | 0.031 | 4 | -0.031 | 0.031 | 4 | -0.236 | 0.271 | 4 | 0.06753307 |
| 4 | | -0.073 | 0.018 | 4 | -0.095 | 0.032 | 4 | -0.036 | 0.017 | 4 | 0.067765143 |
| 4 | 1 | -0.030 | 0.016 | 3 | -0.030 | 0.014 | 3 | -0.032 | 0.021 | 3 | 0.067997215 |
| 3 | | -0.002 | 0.033 | 4 | -0.077 | 0.017 | 4 | -0.189 | 0.211 | 4 | 0.068229288 |
| 2 | | -0.105 | 0.025 | 2 | -0.060 | 0.031 | 2 | -0.054 | 0.037 | 2 | 0.06846136 |
| 4 | | -0.063 | 0.055 | 4 | -0.152 | 0.046 | 4 | -0.052 | 0.026 | 4 | 0.068693432 |
| 4 | | -0.073 | 0.022 | 4 | -0.096 | 0.044 | 4 | -0.070 | 0.027 | 4 | 0.068925505 |
| 3 | | -0.065 | 0.017 | 3 | -0.099 | 0.030 | 3 | -0.087 | 0.043 | 3 | 0.069157577 |
| 2 | | 0.038 | 0.020 | 2 | -0.197 | 0.046 | 2 | -0.130 | 0.028 | 2 | 0.06938965 |
| 4 | | -0.050 | 0.027 | 4 | -0.083 | 0.033 | 4 | -0.070 | 0.071 | 4 | 0.069621722 |
| 3 | | -0.045 | 0.011 | 4 | -0.091 | 0.026 | 4 | -0.164 | 0.116 | 4 | 0.069853794 |
| 4 | | -0.034 | 0.010 | 4 | -0.155 | 0.067 | 4 | -0.080 | 0.030 | 4 | 0.070085867 |
| 3 | | -0.105 | 0.028 | 4 | -0.159 | 0.058 | 4 | -0.086 | 0.019 | 4 | 0.070317939 |
| 4 | | -0.040 | 0.034 | 4 | -0.047 | 0.024 | 4 | -0.095 | 0.054 | 4 | 0.070550012 |
| 3 | | -0.041 | 0.017 | 3 | -0.147 | 0.024 | 3 | 0.019 | 0.043 | 3 | 0.070782084 |
| 4 | | -0.111 | 0.023 | 4 | -0.076 | 0.036 | 4 | -0.062 | 0.046 | 4 | 0.071014156 |
| 4 | | -0.025 | 0.020 | 4 | -0.120 | 0.035 | 4 | -0.107 | 0.016 | 4 | 0.071246229 |
| 3 | | -0.106 | 0.025 | 4 | -0.138 | 0.045 | 4 | -0.076 | 0.044 | 4 | 0.071478301 |
| 4 | | -0.015 | 0.028 | 4 | -0.015 | 0.040 | 4 | -0.218 | 0.289 | 4 | 0.071710374 |
| 4 | | -0.069 | 0.017 | 4 | -0.118 | 0.035 | 4 | -0.084 | 0.016 | 4 | 0.071942446 |
| 4 | | -0.042 | 0.012 | 4 | -0.032 | 0.034 | 4 | -0.181 | 0.135 | 4 | 0.072174518 |

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|---|---|---|---|---|---|---|---|---|---|---|
| 2 | -0.014 | 0.026 | 2 | -0.147 | 0.054 | 2 | -0.022 | 0.027 | 2 | 0.072406591 |
| 4 | -0.015 | 0.030 | 4 | -0.038 | 0.034 | 4 | -0.220 | 0.191 | 4 | 0.072638663 |
| 2 | -0.043 | 0.030 | 2 | -0.081 | 0.033 | 2 | -0.066 | 0.028 | 2 | 0.072870736 |
| 4 | -0.062 | 0.023 | 4 | -0.100 | 0.045 | 4 | -0.090 | 0.016 | 4 | 0.073102808 |
| 4 | -0.042 | 0.020 | 4 | -0.058 | 0.028 | 4 | -0.159 | 0.128 | 4 | 0.07333488 |
| 4 | 0.003 | 0.015 | 4 | -0.037 | 0.051 | 4 | -0.226 | 0.237 | 4 | 0.073566953 |
| 4 | -0.051 | 0.036 | 4 | -0.069 | 0.041 | 4 | -0.101 | 0.037 | 4 | 0.073799025 |
| 4 | -0.033 | 0.023 | 4 | -0.056 | 0.067 | 4 | -0.107 | 0.020 | 4 | 0.074031098 |
| 4 | -0.083 | 0.027 | 4 | -0.130 | 0.067 | 4 | -0.096 | 0.060 | 4 | 0.07426317 |
| 4 | -0.046 | 0.024 | 4 | -0.116 | 0.042 | 4 | -0.034 | 0.030 | 4 | 0.074495243 |
| 4 | -0.015 | 0.029 | 4 | -0.047 | 0.048 | 4 | -0.217 | 0.210 | 4 | 0.074727315 |
| 4 | -0.077 | 0.021 | 4 | -0.074 | 0.030 | 4 | -0.148 | 0.086 | 4 | 0.074959387 |
| 4 | -0.020 | 0.031 | 4 | -0.101 | 0.032 | 4 | -0.085 | 0.007 | 4 | 0.07519146 |
| 4 | -0.043 | 0.008 | 4 | -0.100 | 0.071 | 4 | -0.060 | 0.037 | 4 | 0.075423532 |
| 4 | -0.055 | 0.024 | 4 | -0.053 | 0.035 | 4 | -0.084 | 0.077 | 4 | 0.075655605 |
| 4 | -0.062 | 0.033 | 4 | -0.038 | 0.045 | 4 | -0.100 | 0.037 | 4 | 0.075887677 |
| 4 | -0.035 | 0.033 | 4 | -0.037 | 0.030 | 4 | -0.189 | 0.208 | 4 | 0.076119749 |
| 4 | -0.066 | 0.019 | 4 | -0.128 | 0.046 | 4 | -0.102 | 0.027 | 4 | 0.076351822 |
| 4 | -0.116 | 0.018 | 4 | -0.032 | 0.055 | 4 | -0.181 | 0.039 | 4 | 0.076583894 |
| 3 | -0.051 | 0.042 | 4 | -0.036 | 0.035 | 4 | -0.223 | 0.308 | 4 | 0.076815967 |
| 4 | -0.063 | 0.029 | 4 | -0.029 | 0.030 | 4 | -0.158 | 0.124 | 4 | 0.077048039 |
| 4 | -0.055 | 0.015 | 4 | -0.062 | 0.040 | 4 | -0.090 | 0.039 | 4 | 0.077280111 |
| 4 | -0.035 | 0.025 | 4 | -0.098 | 0.032 | 4 | -0.050 | 0.024 | 4 | 0.077512184 |
| 3 | -0.068 | 0.037 | 4 | -0.121 | 0.031 | 4 | -0.098 | 0.031 | 4 | 0.077744256 |
| 3 | -0.039 | 0.032 | 3 | -0.105 | 0.056 | 3 | -0.083 | 0.006 | 3 | 0.077976329 |
| 4 | -0.098 | 0.020 | 4 | -0.056 | 0.053 | 4 | -0.113 | 0.027 | 4 | 0.078208401 |
| 4 | -0.190 | 0.019 | 4 | -0.006 | 0.039 | 4 | 0.056 | 0.052 | 4 | 0.078440473 |
| 4 | -0.038 | 0.028 | 4 | -0.093 | 0.054 | 4 | -0.072 | 0.047 | 4 | 0.078672546 |
| 4 | -0.073 | 0.028 | 4 | -0.008 | 0.030 | 4 | -0.032 | 0.020 | 4 | 0.078904618 |
| 4 | -0.074 | 0.026 | 4 | -0.127 | 0.042 | 4 | -0.064 | 0.030 | 4 | 0.079136691 |
| 4 | -0.065 | 0.033 | 4 | -0.085 | 0.023 | 4 | -0.085 | 0.022 | 4 | 0.079368763 |
| 3 | -0.025 | 0.045 | 3 | -0.064 | 0.065 | 3 | -0.180 | 0.123 | 3 | 0.079600835 |
| 2 | -0.045 | 0.015 | 2 | -0.111 | 0.034 | 2 | -0.075 | 0.038 | 2 | 0.079832908 |
| 2 | -0.025 | 0.009 | 2 | -0.058 | 0.005 | 2 | -0.086 | 0.013 | 2 | 0.08006498 |
| 4 | -0.056 | 0.036 | 4 | 0.016 | 0.056 | 4 | -0.116 | 0.126 | 4 | 0.080297053 |
| 4 | -0.064 | 0.022 | 4 | -0.124 | 0.039 | 4 | -0.065 | 0.044 | 4 | 0.080529125 |
| 4 | -0.015 | 0.024 | 4 | -0.092 | 0.032 | 4 | -0.126 | 0.102 | 4 | 0.080761197 |
| 4 | -0.026 | 0.048 | 4 | -0.059 | 0.052 | 4 | -0.100 | 0.060 | 4 | 0.08099327 |
| 2 | -0.055 | 0.012 | 2 | -0.112 | 0.011 | 2 | -0.087 | 0.016 | 2 | 0.081225342 |
| 4 | -0.057 | 0.023 | 4 | -0.126 | 0.024 | 4 | -0.054 | 0.009 | 4 | 0.081457415 |
| 4 | -0.059 | 0.029 | 4 | -0.092 | 0.035 | 4 | -0.064 | 0.021 | 4 | 0.081689487 |
| 4 | -0.009 | 0.016 | 4 | -0.095 | 0.019 | 4 | -0.189 | 0.032 | 4 | 0.08192156 |
| 4 | -0.036 | 0.016 | 4 | -0.091 | 0.031 | 4 | -0.116 | 0.039 | 4 | 0.082153632 |
| 4 | -0.027 | 0.015 | 4 | -0.128 | 0.040 | 4 | -0.080 | 0.022 | 4 | 0.082385704 |
| 2 | -0.020 | 0.005 | 2 | -0.107 | 0.040 | 2 | -0.147 | 0.033 | 2 | 0.082617777 |
| 4 | -0.098 | 0.040 | 4 | -0.118 | 0.052 | 4 | -0.098 | 0.018 | 4 | 0.082849849 |
| 4 | -0.071 | 0.042 | 4 | -0.084 | 0.050 | 4 | -0.040 | 0.049 | 4 | 0.083081922 |
| 3 | -0.041 | 0.003 | 3 | -0.181 | 0.042 | 3 | -0.089 | 0.041 | 3 | 0.083313994 |
| 2 | -0.089 | 0.022 | 2 | -0.085 | 0.048 | 2 | -0.052 | 0.001 | 2 | 0.083546066 |
| 4 | -0.080 | 0.016 | 4 | -0.100 | 0.044 | 4 | -0.065 | 0.033 | 4 | 0.083778139 |
| 2 | -0.104 | 0.020 | 2 | -0.105 | 0.006 | 2 | -0.110 | 0.012 | 2 | 0.084010211 |
| 4 | -0.080 | 0.041 | 4 | -0.105 | 0.039 | 4 | -0.062 | 0.066 | 4 | 0.084242284 |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 4 | | -0.073 | 0.025 | 4 | -0.027 | 0.035 | 4 | -0.025 | 0.035 | 4 | 0.084474356 |
| 4 | | -0.098 | 0.068 | 4 | -0.103 | 0.089 | 4 | -0.068 | 0.073 | 4 | 0.084706428 |
| 4 | | -0.061 | 0.025 | 4 | -0.066 | 0.039 | 4 | -0.120 | 0.014 | 4 | 0.084938501 |
| 4 | | -0.035 | 0.019 | 4 | -0.122 | 0.052 | 4 | -0.069 | 0.017 | 4 | 0.085170573 |
| 4 | | -0.073 | 0.027 | 4 | -0.058 | 0.052 | 4 | -0.050 | 0.030 | 4 | 0.085402646 |
| 4 | | 0.004 | 0.012 | 4 | -0.025 | 0.042 | 4 | -0.258 | 0.307 | 4 | 0.085634718 |
| 4 | | -0.056 | 0.029 | 4 | -0.126 | 0.086 | 4 | -0.031 | 0.038 | 4 | 0.08586679 |
| 4 | | -0.010 | 0.018 | 4 | -0.039 | 0.049 | 4 | -0.198 | 0.220 | 4 | 0.086098863 |
| 4 | | -0.061 | 0.025 | 4 | -0.165 | 0.050 | 4 | -0.030 | 0.033 | 4 | 0.086330935 |
| 4 | | -0.055 | 0.054 | 4 | -0.106 | 0.047 | 4 | -0.074 | 0.033 | 4 | 0.086563008 |
| 3 | 1 | -0.041 | 0.006 | 2 | -0.077 | 0.044 | 2 | -0.051 | 0.015 | 2 | 0.08679508 |
| 4 | | -0.030 | 0.026 | 4 | -0.027 | 0.023 | 4 | -0.168 | 0.111 | 4 | 0.087027152 |
| 2 | | -0.054 | 0.034 | 2 | -0.119 | 0.031 | 2 | -0.083 | 0.045 | 2 | 0.087259225 |
| 3 | | -0.066 | 0.033 | 4 | -0.100 | 0.019 | 4 | -0.066 | 0.017 | 4 | 0.087491297 |
| 2 | | 0.001 | 0.030 | 4 | -0.057 | 0.026 | 4 | -0.062 | 0.028 | 4 | 0.08772337 |
| 4 | | -0.011 | 0.024 | 4 | -0.028 | 0.067 | 4 | -0.192 | 0.180 | 4 | 0.087955442 |
| 4 | | -0.080 | 0.035 | 4 | -0.051 | 0.046 | 4 | -0.053 | 0.137 | 4 | 0.088187515 |
| 3 | | -0.032 | 0.019 | 4 | -0.055 | 0.039 | 4 | -0.082 | 0.037 | 4 | 0.088419587 |
| 4 | | -0.079 | 0.029 | 4 | -0.094 | 0.048 | 4 | 0.012 | 0.017 | 4 | 0.088651659 |
| 4 | | -0.037 | 0.006 | 4 | -0.088 | 0.015 | 4 | -0.082 | 0.014 | 4 | 0.088883732 |
| 4 | | -0.049 | 0.028 | 4 | -0.027 | 0.024 | 4 | -0.041 | 0.024 | 4 | 0.089115804 |
| 4 | | -0.054 | 0.044 | 4 | -0.102 | 0.025 | 4 | -0.140 | 0.031 | 4 | 0.089347877 |
| 4 | | -0.003 | 0.047 | 4 | -0.100 | 0.041 | 4 | -0.061 | 0.032 | 4 | 0.089579949 |
| 4 | | -0.021 | 0.037 | 4 | -0.092 | 0.063 | 4 | -0.076 | 0.040 | 4 | 0.089812021 |
| 2 | | -0.081 | 0.030 | 2 | -0.137 | 0.003 | 2 | -0.100 | 0.016 | 2 | 0.090044094 |
| 4 | | -0.057 | 0.024 | 4 | -0.079 | 0.055 | 4 | -0.063 | 0.058 | 4 | 0.090276166 |
| 4 | | -0.050 | 0.020 | 4 | -0.039 | 0.030 | 4 | -0.060 | 0.075 | 4 | 0.090508239 |
| 4 | | -0.071 | 0.020 | 4 | -0.004 | 0.045 | 4 | -0.070 | 0.036 | 4 | 0.090740311 |
| 4 | | -0.066 | 0.030 | 4 | -0.100 | 0.052 | 4 | -0.063 | 0.038 | 4 | 0.090972383 |
| 2 | | -0.099 | 0.016 | 2 | 0.048 | 0.023 | 2 | 0.036 | 0.025 | 2 | 0.091204456 |
| 4 | | 0.009 | 0.009 | 4 | -0.035 | 0.065 | 4 | -0.183 | 0.175 | 4 | 0.091436528 |
| 4 | | -0.039 | 0.029 | 4 | -0.117 | 0.025 | 4 | -0.065 | 0.015 | 4 | 0.091668601 |
| 3 | | -0.107 | 0.059 | 4 | -0.016 | 0.037 | 4 | -0.108 | 0.028 | 4 | 0.091900673 |
| 4 | | -0.112 | 0.017 | 4 | -0.040 | 0.033 | 4 | -0.117 | 0.022 | 4 | 0.092132745 |
| | | -0.013 | 0.023 | 2 | -0.114 | 0.010 | 2 | -0.064 | 0.016 | 2 | 0.092364818 |
| 2 | | -0.020 | 0.029 | 2 | -0.019 | 0.002 | 2 | -0.097 | 0.006 | 2 | 0.09259689 |
| 2 | | -0.026 | 0.012 | 2 | -0.127 | 0.021 | 2 | -0.104 | 0.005 | 2 | 0.092828963 |
| 4 | | -0.027 | 0.054 | 4 | -0.084 | 0.040 | 4 | -0.085 | 0.028 | 4 | 0.093061035 |
| 4 | | -0.037 | 0.026 | 4 | -0.097 | 0.048 | 4 | -0.033 | 0.029 | 4 | 0.093293107 |
| 4 | | -0.058 | 0.034 | 4 | -0.038 | 0.041 | 4 | -0.076 | 0.031 | 4 | 0.09352518 |
| | | 0.005 | 0.025 | 3 | -0.086 | 0.020 | 3 | -0.109 | 0.009 | 3 | 0.093757252 |
| 2 | | -0.035 | 0.008 | 2 | -0.090 | 0.011 | 2 | -0.065 | 0.020 | 2 | 0.093989325 |
| 4 | | -0.021 | 0.047 | 4 | -0.063 | 0.048 | 4 | -0.081 | 0.016 | 4 | 0.094221397 |
| 4 | | -0.055 | 0.024 | 4 | -0.047 | 0.038 | 4 | -0.062 | 0.020 | 4 | 0.094453469 |
| 2 | | -0.041 | 0.045 | 4 | -0.075 | 0.050 | 4 | -0.102 | 0.091 | 4 | 0.094685542 |
| 2 | | -0.097 | 0.043 | 2 | -0.097 | 0.010 | 2 | -0.113 | 0.014 | 2 | 0.094917614 |
| 3 | | -0.083 | 0.022 | 3 | -0.065 | 0.024 | 3 | -0.020 | 0.045 | 3 | 0.095149687 |
| 2 | | -0.086 | 0.046 | 4 | -0.064 | 0.023 | 4 | -0.048 | 0.015 | 4 | 0.095381759 |
| 2 | | -0.047 | 0.037 | 2 | -0.049 | 0.084 | 2 | -0.055 | 0.040 | 2 | 0.095613832 |
| 4 | | -0.086 | 0.018 | 4 | -0.098 | 0.016 | 4 | -0.088 | 0.012 | 4 | 0.095845904 |
| 4 | | -0.035 | 0.026 | 4 | -0.113 | 0.045 | 4 | -0.056 | 0.071 | 4 | 0.096077976 |
| 3 | | -0.098 | 0.023 | 4 | -0.012 | 0.035 | 4 | -0.102 | 0.037 | 4 | 0.096310049 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 4 | -0.081 | 0.019 | 4 | -0.063 | 0.024 | 4 | -0.012 | 0.028 | 4 | 0.096542121 |
| 2 | -0.030 | 0.016 | 4 | -0.091 | 0.037 | 4 | -0.091 | 0.041 | 4 | 0.096774194 |
| 2 | -0.041 | 0.006 | 2 | -0.060 | 0.041 | 2 | -0.057 | 0.000 | 2 | 0.097006266 |
| 4 | -0.068 | 0.013 | 4 | -0.046 | 0.037 | 4 | -0.050 | 0.041 | 4 | 0.097238338 |
| 4 | -0.010 | 0.025 | 4 | -0.032 | 0.041 | 4 | -0.184 | 0.223 | 4 | 0.097470411 |
| 2 | -0.082 | 0.052 | 2 | -0.149 | 0.015 | 2 | -0.130 | 0.029 | 2 | 0.097702483 |
| 3 | -0.087 | 0.018 | 4 | -0.085 | 0.016 | 4 | -0.107 | 0.030 | 4 | 0.097934556 |
| 4 | -0.072 | 0.018 | 4 | -0.099 | 0.059 | 4 | -0.075 | 0.036 | 4 | 0.098166628 |
| 4 | -0.034 | 0.014 | 4 | -0.011 | 0.032 | 4 | -0.234 | 0.260 | 4 | 0.0983987 |
| 2 | -0.043 | 0.030 | 2 | -0.089 | 0.013 | 2 | -0.092 | 0.036 | 2 | 0.098630773 |
| 4 | -0.076 | 0.017 | 4 | -0.097 | 0.050 | 4 | -0.063 | 0.024 | 4 | 0.098862845 |
| 2 | -0.007 | 0.035 | 3 | -0.080 | 0.043 | 3 | -0.051 | 0.018 | 3 | 0.099094918 |
| | 0.126 | 0.005 | 2 | -0.089 | 0.002 | 2 | -0.223 | 0.002 | 2 | 1 0.09932699 |
| 4 | -0.072 | 0.033 | 4 | -0.134 | 0.005 | 4 | -0.038 | 0.015 | 4 | 0.099559062 |
| 4 | -0.047 | 0.025 | 4 | -0.018 | 0.019 | 4 | -0.204 | 0.165 | 4 | 0.099791135 |
| 4 | -0.056 | 0.012 | 4 | -0.122 | 0.047 | 4 | -0.033 | 0.030 | 4 | 0.100023207 |
| 4 | -0.007 | 0.026 | 4 | -0.090 | 0.034 | 4 | -0.112 | 0.015 | 4 | 0.10025528 |
| 4 | -0.048 | 0.034 | 4 | -0.103 | 0.045 | 4 | -0.043 | 0.033 | 4 | 0.100487352 |
| 4 | -0.007 | 0.049 | 4 | -0.097 | 0.077 | 4 | -0.058 | 0.052 | 4 | 0.100719424 |
| 4 | -0.047 | 0.028 | 4 | -0.090 | 0.023 | 4 | -0.070 | 0.015 | 4 | 0.100951497 |
| 3 | -0.274 | 0.019 | 4 | 0.049 | 0.039 | 4 | 0.002 | 0.036 | 4 | 0.101183569 |
| 4 | -0.068 | 0.023 | 4 | -0.039 | 0.072 | 4 | -0.185 | 0.198 | 4 | 0.101415642 |
| 4 | -0.048 | 0.027 | 4 | -0.101 | 0.068 | 4 | -0.089 | 0.038 | 4 | 0.101647714 |
| 4 | -0.068 | 0.016 | 4 | -0.069 | 0.005 | 4 | -0.107 | 0.025 | 4 | 0.101879786 |
| 4 | -0.047 | 0.011 | 4 | -0.080 | 0.060 | 4 | -0.069 | 0.035 | 4 | 0.102111859 |
| 2 | -0.016 | 0.002 | 2 | -0.109 | 0.037 | 2 | -0.085 | 0.004 | 2 | 0.102343931 |
| 4 | -0.017 | 0.035 | 4 | -0.075 | 0.086 | 4 | -0.103 | 0.045 | 4 | 0.102576004 |
| 4 | -0.024 | 0.013 | 4 | -0.124 | 0.067 | 4 | -0.084 | 0.027 | 4 | 0.102808076 |
| 4 | -0.094 | 0.017 | 4 | -0.047 | 0.025 | 4 | -0.081 | 0.041 | 4 | 0.103040149 |
| 4 | -0.043 | 0.015 | 4 | -0.107 | 0.033 | 4 | -0.048 | 0.017 | 4 | 0.103272221 |
| 4 | -0.039 | 0.040 | 4 | -0.056 | 0.029 | 4 | -0.040 | 0.037 | 4 | 0.103504293 |
| 4 | -0.066 | 0.020 | 4 | -0.071 | 0.037 | 4 | -0.085 | 0.074 | 4 | 0.103736366 |
| 4 | -0.045 | 0.033 | 4 | -0.081 | 0.047 | 4 | -0.050 | 0.020 | 4 | 0.103968438 |
| 2 | -0.028 | 0.001 | 2 | -0.105 | 0.052 | 2 | -0.091 | 0.005 | 2 | 0.104200511 |
| 2 | -0.043 | 0.022 | 3 | -0.040 | 0.015 | 3 | -0.114 | 0.094 | 3 | 0.104432583 |
| 4 | -0.025 | 0.027 | 4 | -0.034 | 0.041 | 4 | -0.093 | 0.031 | 4 | 0.104664655 |
| 3 | -0.026 | 0.024 | 3 | -0.086 | 0.031 | 3 | -0.099 | 0.067 | 3 | 0.104896728 |
| 3 | -0.038 | 0.027 | 3 | -0.014 | 0.026 | 3 | -0.054 | 0.013 | 3 | 0.1051288 |
| 2 | -0.087 | 0.059 | 3 | -0.166 | 0.029 | 3 | -0.048 | 0.003 | 3 | 0.105360873 |
| 3 | -0.073 | 0.019 | 4 | -0.078 | 0.064 | 4 | -0.068 | 0.016 | 4 | 0.105592945 |
| 4 | 0.001 | 0.028 | 4 | -0.072 | 0.052 | 4 | -0.019 | 0.022 | 4 | 0.105825017 |
| | -0.085 | 0.068 | 2 | -0.071 | 0.049 | 2 | -0.025 | 0.054 | 2 | 0.10605709 |
| 4 | -0.009 | 0.011 | 4 | -0.055 | 0.031 | 4 | -0.053 | 0.046 | 4 | 0.106289162 |
| 4 | -0.048 | 0.032 | 4 | -0.087 | 0.022 | 4 | -0.069 | 0.036 | 4 | 0.106521235 |
| 4 | -0.020 | 0.019 | 4 | -0.083 | 0.051 | 4 | -0.087 | 0.103 | 4 | 0.106753307 |
| 4 | -0.046 | 0.025 | 4 | -0.076 | 0.040 | 4 | -0.060 | 0.018 | 4 | 0.106985379 |
| 4 | -0.040 | 0.021 | 4 | -0.059 | 0.060 | 4 | -0.055 | 0.036 | 4 | 0.107217452 |
| 3 | -0.242 | 0.081 | 4 | 0.047 | 0.031 | 4 | -0.127 | 0.023 | 4 | 0.107449524 |
| 4 | -0.060 | 0.019 | 4 | -0.042 | 0.017 | 4 | -0.150 | 0.035 | 4 | 0.107681597 |
| 4 | -0.058 | 0.036 | 4 | -0.068 | 0.014 | 4 | -0.054 | 0.023 | 4 | 0.107913669 |
| 2 | -0.117 | 0.013 | 2 | -0.092 | 0.025 | 2 | -0.020 | 0.008 | 2 | 0.108145741 |
| 2 | -0.088 | 0.018 | 2 | -0.072 | 0.011 | 2 | -0.077 | 0.008 | 2 | 0.108377814 |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 4 | -0.108 | 0.065 | 4 | | -0.125 | 0.091 | 4 | | -0.018 | 0.033 | 4 | 0.108609886 |
| 2 | -0.159 | 0.035 | 3 | | 0.041 | 0.035 | 3 | | -0.166 | 0.077 | 3 | 0.108841959 |
| 4 | -0.046 | 0.040 | 4 | | -0.066 | 0.052 | 4 | | -0.056 | 0.028 | 4 | 0.109074031 |
| 4 | -0.040 | 0.013 | 4 | | -0.085 | 0.034 | 4 | | -0.072 | 0.031 | 4 | 0.109306104 |
| 4 | -0.099 | 0.013 | 4 | | -0.081 | 0.029 | 4 | | -0.063 | 0.037 | 4 | 0.109538176 |
| 4 | -0.050 | 0.043 | 4 | | -0.077 | 0.047 | 4 | | -0.045 | 0.038 | 4 | 0.109770248 |
| 4 | 0.006 | 0.028 | 4 | | -0.005 | 0.045 | 4 | | -0.217 | 0.023 | 4 | 0.110002321 |
| 4 | -0.025 | 0.033 | 4 | | -0.020 | 0.047 | 4 | | -0.139 | 0.202 | 4 | 0.110234393 |
| 3 | 0.010 | 0.041 | 4 | | -0.078 | 0.013 | 4 | | -0.006 | 0.010 | 4 | 0.110466466 |
| 4 | 0.020 | 0.035 | 4 | | -0.010 | 0.034 | 4 | | -0.198 | 0.258 | 4 | 0.110698538 |
| 4 | 0.008 | 0.013 | 4 | | -0.010 | 0.044 | 4 | | -0.217 | 0.230 | 4 | 0.11093061 |
| 4 | -0.004 | 0.013 | 4 | | 0.010 | 0.071 | 4 | | -0.232 | 0.332 | 4 | 0.111162683 |
| 4 | -0.026 | 0.092 | 4 | | -0.178 | 0.027 | 4 | | -0.065 | 0.018 | 4 | 0.111394755 |
| 4 | -0.030 | 0.021 | 4 | | -0.067 | 0.037 | 4 | | -0.089 | 0.025 | 4 | 0.111626828 |
| 4 | 0.006 | 0.021 | 4 | | -0.084 | 0.060 | 4 | | -0.091 | 0.023 | 4 | 0.1118589 |
| 4 | -0.036 | 0.034 | 4 | | -0.062 | 0.027 | 4 | | -0.061 | 0.039 | 4 | 0.112090972 |
| 4 | -0.074 | 0.040 | 4 | | -0.048 | 0.054 | 4 | | -0.056 | 0.059 | 4 | 0.112323045 |
| 2 | -0.042 | 0.006 | 2 | | -0.124 | 0.064 | 2 | | -0.017 | 0.018 | 2 | 0.112555117 |
| 4 | -0.052 | 0.030 | 4 | | -0.072 | 0.018 | 4 | | -0.025 | 0.035 | 4 | 0.11278719 |
| 4 | -0.041 | 0.043 | 4 | | 0.005 | 0.043 | 4 | | -0.161 | 0.160 | 4 | 0.113019262 |
| 4 | -0.046 | 0.026 | 4 | | -0.081 | 0.014 | 4 | | -0.031 | 0.063 | 4 | 0.113251334 |
| 2 | -0.030 | 0.016 | 2 | | -0.094 | 0.034 | 2 | | -0.083 | 0.006 | 2 | 0.113483407 |
| 4 | -0.002 | 0.027 | 4 | | -0.016 | 0.041 | 4 | | -0.213 | 0.285 | 4 | 0.113715479 |
| 4 | -0.035 | 0.035 | 4 | | -0.070 | 0.047 | 4 | | -0.041 | 0.021 | 4 | 0.113947552 |
| 4 | -0.032 | 0.008 | 4 | | -0.087 | 0.028 | 4 | | -0.045 | 0.032 | 4 | 0.114179624 |
| 2 | -0.079 | 0.014 | 2 | | -0.023 | 0.037 | 2 | | -0.043 | 0.004 | 2 | 0.114411696 |
| 3 | -0.047 | 0.038 | 3 | | -0.119 | 0.012 | 3 | | -0.046 | 0.025 | 3 | 0.114643769 |
| 4 | 0.006 | 0.038 | 4 | | -0.028 | 0.039 | 4 | | -0.100 | 0.049 | 4 | 0.114875841 |
| 4 | -0.052 | 0.026 | 4 | | -0.065 | 0.028 | 4 | | -0.018 | 0.027 | 4 | 0.115107914 |
| 4 | -0.083 | 0.011 | 4 | | -0.060 | 0.037 | 4 | | -0.026 | 0.002 | 4 | 0.115339986 |
| 4 | -0.020 | 0.037 | 4 | | -0.021 | 0.026 | 4 | | -0.210 | 0.259 | 4 | 0.115572058 |
| 4 | -0.009 | 0.012 | 4 | | -0.077 | 0.061 | 4 | | -0.104 | 0.111 | 4 | 0.115804131 |
| 4 | -0.057 | 0.032 | 4 | | -0.167 | 0.084 | 4 | | -0.097 | 0.042 | 4 | 0.116036203 |
| 2 | -0.035 | 0.011 | 2 | | -0.081 | 0.009 | 2 | | -0.093 | 0.004 | 2 | 0.116268276 |
| | -0.098 | 0.081 | 3 | 1 | -0.149 | 0.068 | 3 | 1 | 0.075 | 0.027 | 3 | 0.116500348 |
| 4 | -0.010 | 0.025 | 4 | | -0.132 | 0.033 | 4 | | -0.048 | 0.012 | 4 | 0.116732421 |
| 4 | -0.043 | 0.007 | 4 | | -0.101 | 0.050 | 4 | | -0.114 | 0.009 | 4 | 0.116964493 |
| 4 | -0.085 | 0.068 | 4 | | -0.073 | 0.044 | 4 | | -0.102 | 0.084 | 4 | 0.117196565 |
| 4 | -0.037 | 0.016 | 4 | | -0.074 | 0.032 | 4 | | -0.097 | 0.048 | 4 | 0.117428638 |
| 4 | -0.079 | 0.009 | 4 | | -0.101 | 0.061 | 4 | | -0.073 | 0.074 | 4 | 0.11766071 |
| 4 | 0.001 | 0.054 | 4 | | -0.088 | 0.019 | 4 | | -0.078 | 0.020 | 4 | 0.117892783 |
| 4 | -0.067 | 0.017 | 4 | | -0.065 | 0.036 | 4 | | -0.066 | 0.038 | 4 | 0.118124855 |
| 3 | -0.083 | 0.034 | 4 | | -0.056 | 0.035 | 4 | | -0.065 | 0.028 | 4 | 0.118356927 |
| 3 | -0.074 | 0.064 | 4 | | -0.075 | 0.035 | 4 | | -0.087 | 0.025 | 4 | 0.118589 |
| 4 | -0.031 | 0.026 | 4 | | -0.060 | 0.021 | 4 | | -0.022 | 0.015 | 4 | 0.118821072 |
| 4 | -0.019 | 0.021 | 4 | | -0.022 | 0.043 | 4 | | -0.068 | 0.019 | 4 | 0.119053145 |
| 2 | -0.053 | 0.050 | 2 | | -0.104 | 0.014 | 2 | | -0.105 | 0.009 | 2 | 0.119285217 |
| 4 | -0.019 | 0.038 | 4 | | -0.086 | 0.053 | 4 | | -0.025 | 0.058 | 4 | 0.119517289 |
| 4 | -0.041 | 0.041 | 4 | | -0.079 | 0.040 | 4 | | -0.051 | 0.028 | 4 | 0.119749362 |
| 4 | 0.001 | 0.026 | 4 | | 0.008 | 0.032 | 4 | | -0.236 | 0.329 | 4 | 0.119981434 |
| 2 | -0.146 | 0.000 | 2 | | -0.076 | 0.030 | 2 | | 0.005 | 0.029 | 2 | 0.120213507 |
| 3 | -0.048 | 0.019 | 4 | | -0.061 | 0.049 | 4 | | -0.001 | 0.057 | 4 | 0.120445579 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 2 | -0.052 | 0.030 | 2 | -0.052 | 0.077 | 2 | -0.046 | 0.037 | 2 | 0.120677651 |
| 4 | -0.059 | 0.031 | 4 | -0.104 | 0.069 | 4 | -0.107 | 0.013 | 4 | 0.120909724 |
| 4 | -0.048 | 0.041 | 4 | -0.059 | 0.050 | 4 | -0.040 | 0.070 | 4 | 0.121141796 |
| 2 | -0.099 | 0.102 | 2 | -0.120 | 0.039 | 2 | -0.062 | 0.056 | 2 | 0.121373869 |
| 2 | -0.023 | 0.018 | 2 | -0.126 | 0.008 | 2 | -0.108 | 0.007 | 2 | 0.121605941 |
| 4 | -0.007 | 0.029 | 4 | -0.055 | 0.051 | 4 | -0.104 | 0.138 | 4 | 0.121838013 |
| 4 | -0.037 | 0.026 | 4 | -0.086 | 0.057 | 4 | -0.060 | 0.048 | 4 | 0.122070086 |
| 4 | -0.049 | 0.024 | 4 | -0.070 | 0.056 | 4 | -0.052 | 0.029 | 4 | 0.122302158 |
| 4 | -0.012 | 0.030 | 4 | -0.034 | 0.058 | 4 | -0.154 | 0.174 | 4 | 0.122534231 |
| 4 | -0.022 | 0.030 | 4 | -0.061 | 0.039 | 4 | -0.061 | 0.021 | 4 | 0.122766303 |
| 4 | -0.043 | 0.038 | 4 | -0.075 | 0.020 | 4 | -0.035 | 0.043 | 4 | 0.122998375 |
| 2 | -0.045 | 0.052 | 2 | -0.010 | 0.046 | 2 | -0.076 | 0.023 | 2 | 0.123230448 |
| 3 | -0.034 | 0.022 | 4 | -0.086 | 0.023 | 4 | -0.087 | 0.025 | 4 | 0.12346252 |
| 4 | -0.053 | 0.022 | 4 | -0.113 | 0.029 | 4 | 0.003 | 0.029 | 4 | 0.123694593 |
| 4 | -0.036 | 0.024 | 4 | -0.074 | 0.069 | 4 | 0.018 | 0.033 | 4 | 0.123926665 |
| 4 | -0.053 | 0.012 | 4 | -0.081 | 0.036 | 4 | -0.073 | 0.019 | 4 | 0.124158738 |
| 4 | -0.051 | 0.019 | 4 | -0.058 | 0.049 | 4 | -0.078 | 0.039 | 4 | 0.12439081 |
| 4 | -0.171 | 0.041 | 4 | -0.081 | 0.034 | 4 | 0.104 | 0.021 | 4 | 0.124622882 |
| 4 | -0.025 | 0.027 | 4 | -0.071 | 0.043 | 4 | -0.088 | 0.039 | 4 | 0.124854955 |
| 4 | 0.006 | 0.023 | 4 | -0.137 | 0.040 | 4 | -0.002 | 0.031 | 4 | 0.125087027 |
| 4 | -0.073 | 0.021 | 4 | -0.084 | 0.034 | 4 | -0.030 | 0.020 | 4 | 0.1253191 |
| 4 | -0.035 | 0.048 | 4 | -0.068 | 0.041 | 4 | -0.105 | 0.049 | 4 | 0.125551172 |
| 4 | -0.044 | 0.036 | 4 | -0.056 | 0.051 | 4 | -0.077 | 0.057 | 4 | 0.125783244 |
| 2 | -0.089 | 0.041 | 2 | -0.115 | 0.003 | 2 | -0.086 | 0.023 | 2 | 0.126015317 |
| 4 | 0.000 | 0.036 | 4 | -0.031 | 0.042 | 4 | -0.124 | 0.143 | 4 | 0.126247389 |
| 4 | -0.060 | 0.040 | 4 | -0.056 | 0.041 | 4 | -0.055 | 0.027 | 4 | 0.126479462 |
| 3 | -0.045 | 0.017 | 3 | -0.105 | 0.005 | 3 | -0.057 | 0.060 | 3 | 0.126711534 |
| 4 | -0.022 | 0.022 | 4 | -0.019 | 0.046 | 4 | -0.103 | 0.113 | 4 | 0.126943606 |
| 4 | -0.010 | 0.045 | 4 | -0.020 | 0.057 | 4 | -0.167 | 0.137 | 4 | 0.127175679 |
| 4 | -0.009 | 0.032 | 4 | -0.076 | 0.052 | 4 | -0.081 | 0.018 | 4 | 0.127407751 |
| 4 | -0.020 | 0.040 | 4 | -0.065 | 0.014 | 4 | -0.045 | 0.019 | 4 | 0.127639824 |
| 4 | -0.039 | 0.033 | 4 | -0.085 | 0.079 | 4 | -0.053 | 0.032 | 4 | 0.127871896 |
| 4 | -0.109 | 0.025 | 4 | -0.070 | 0.023 | 4 | -0.021 | 0.051 | 4 | 0.128103968 |
| 2 | -0.034 | 0.011 | 2 | -0.116 | 0.052 | 2 | -0.061 | 0.028 | 2 | 0.128336041 |
| 4 | -0.048 | 0.053 | 4 | -0.057 | 0.024 | 4 | -0.079 | 0.028 | 4 | 0.128568113 |
| 4 | -0.147 | 0.040 | 4 | -0.135 | 0.022 | 4 | 0.154 | 0.037 | 4 | 0.128800186 |
| 4 | -0.040 | 0.015 | 4 | -0.060 | 0.043 | 4 | -0.044 | 0.027 | 4 | 0.129032258 |
| 2 | -0.043 | 0.067 | 2 | -0.098 | 0.005 | 2 | -0.104 | 0.001 | 2 | 0.12926433 |
| 4 | -0.038 | 0.030 | 4 | -0.038 | 0.034 | 4 | -0.018 | 0.029 | 4 | 0.129496403 |
| 4 | -0.007 | 0.040 | 4 | -0.009 | 0.054 | 4 | -0.171 | 0.272 | 4 | 0.129728475 |
| | -0.079 | 0.172 | 2 | 0.016 | 0.236 | 2 | -0.099 | 0.245 | 2 | 0.129960548 |
| 3 | -0.055 | 0.028 | 4 | -0.062 | 0.041 | 4 | -0.075 | 0.071 | 4 | 0.13019262 |
| 2 | -0.048 | 0.001 | 2 | -0.082 | 0.014 | 2 | -0.046 | 0.014 | 2 | 0.130424693 |
| 4 | -0.003 | 0.027 | 4 | -0.057 | 0.033 | 4 | -0.080 | 0.020 | 4 | 0.130656765 |
| 4 | -0.060 | 0.040 | 4 | -0.055 | 0.058 | 4 | 0.037 | 0.018 | 4 | 0.130888837 |
| 4 | -0.055 | 0.023 | 4 | -0.095 | 0.038 | 4 | -0.079 | 0.039 | 4 | 0.13112091 |
| 4 | 0.010 | 0.028 | 4 | -0.012 | 0.038 | 4 | -0.212 | 0.255 | 4 | 0.131352982 |
| 4 | -0.043 | 0.045 | 4 | -0.100 | 0.056 | 4 | -0.026 | 0.021 | 4 | 0.131585055 |
| 4 | -0.131 | 0.120 | 4 | -0.122 | 0.113 | 4 | -0.019 | 0.017 | 4 | 0.131817127 |
| 4 | -0.023 | 0.013 | 4 | -0.028 | 0.046 | 4 | -0.144 | 0.115 | 4 | 0.132049199 |
| 4 | -0.071 | 0.034 | 4 | -0.074 | 0.030 | 4 | -0.059 | 0.015 | 4 | 0.132281272 |
| 4 | -0.027 | 0.030 | 4 | -0.098 | 0.049 | 4 | -0.065 | 0.033 | 4 | 0.132513344 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 4 | -0.063 | 0.032 | 4 | -0.070 | 0.017 | 4 | -0.082 | 0.025 | 4 | 0.132745417 |
| 4 | -0.031 | 0.051 | 4 | -0.076 | 0.054 | 4 | -0.061 | 0.038 | 4 | 0.132977489 |
| 4 | -0.036 | 0.038 | 4 | -0.057 | 0.020 | 4 | -0.084 | 0.009 | 4 | 0.133209561 |
| 4 | -0.024 | 0.018 | 4 | -0.021 | 0.039 | 4 | -0.046 | 0.013 | 4 | 0.133441634 |
| 4 | 0.005 | 0.022 | 4 | -0.070 | 0.044 | 4 | -0.055 | 0.014 | 4 | 0.133673706 |
| 4 | -0.082 | 0.020 | 4 | 0.004 | 0.028 | 4 | -0.004 | 0.005 | 4 | 0.133905779 |
| 3 | 0.010 | 0.013 | 4 | -0.035 | 0.042 | 4 | -0.029 | 0.033 | 4 | 0.134137851 |
| 2 | -0.028 | 0.030 | 2 | -0.099 | 0.004 | 2 | -0.089 | 0.025 | 2 | 0.134369923 |
| 2 | -0.060 | 0.030 | 2 | -0.064 | 0.004 | 2 | -0.077 | 0.018 | 2 | 0.134601996 |
| | -0.035 | 0.037 | 2 | -0.112 | 0.028 | 2 | -0.012 | 0.008 | 2 | 0.134834068 |
| 4 | 0.046 | 0.038 | 4 | -0.026 | 0.047 | 4 | -0.177 | 0.240 | 4 | 0.135066141 |
| 2 | -0.045 | 0.059 | 4 | -0.056 | 0.066 | 4 | 0.013 | 0.038 | 4 | 0.135298213 |
| 4 | -0.067 | 0.039 | 4 | -0.066 | 0.057 | 4 | -0.045 | 0.023 | 4 | 0.135530285 |
| 4 | -0.047 | 0.040 | 4 | -0.045 | 0.071 | 4 | -0.056 | 0.069 | 4 | 0.135762358 |
| 4 | -0.009 | 0.027 | 4 | -0.070 | 0.029 | 4 | -0.096 | 0.014 | 4 | 0.13599443 |
| 4 | -0.022 | 0.022 | 4 | -0.053 | 0.052 | 4 | -0.045 | 0.022 | 4 | 0.136226503 |
| 4 | -0.026 | 0.028 | 4 | -0.074 | 0.056 | 4 | -0.057 | 0.022 | 4 | 0.136458575 |
| 4 | -0.070 | 0.043 | 4 | -0.039 | 0.018 | 4 | -0.050 | 0.040 | 4 | 0.136690647 |
| 4 | -0.001 | 0.010 | 4 | 0.024 | 0.031 | 4 | -0.256 | 0.301 | 4 | 0.13692272 |
| 4 | -0.070 | 0.009 | 4 | -0.081 | 0.020 | 4 | -0.007 | 0.021 | 4 | 0.137154792 |
| 4 | -0.056 | 0.076 | 4 | -0.084 | 0.066 | 4 | -0.078 | 0.044 | 4 | 0.137386865 |
| 4 | -0.040 | 0.040 | 4 | -0.034 | 0.014 | 4 | -0.031 | 0.013 | 4 | 0.137618937 |
| 2 | -0.019 | 0.036 | 2 | -0.037 | 0.038 | 2 | -0.073 | 0.028 | 2 | 0.13785101 |
| 2 | -0.020 | 0.010 | 2 | -0.107 | 0.004 | 2 | -0.065 | 0.001 | 2 | 0.138083082 |
| 4 | -0.036 | 0.034 | 4 | -0.080 | 0.045 | 4 | -0.064 | 0.033 | 4 | 0.138315154 |
| 4 | 0.005 | 0.032 | 4 | -0.064 | 0.047 | 4 | -0.069 | 0.016 | 4 | 0.138547227 |
| 4 | -0.046 | 0.043 | 4 | -0.012 | 0.038 | 4 | -0.015 | 0.018 | 4 | 0.138779299 |
| 2 | -0.021 | 0.046 | 2 | -0.136 | 0.005 | 2 | -0.101 | 0.005 | 2 | 0.139011372 |
| 3 | -0.046 | 0.022 | 3 | -0.041 | 0.050 | 3 | -0.053 | 0.032 | 3 | 0.139243444 |
| 4 | 0.004 | 0.040 | 4 | -0.048 | 0.024 | 4 | -0.053 | 0.009 | 4 | 0.139475516 |
| 2 | -0.025 | 0.013 | 2 | -0.106 | 0.008 | 2 | -0.082 | 0.006 | 2 | 0.139707589 |
| 4 | -0.022 | 0.036 | 4 | -0.041 | 0.053 | 4 | -0.065 | 0.011 | 4 | 0.139939661 |
| 4 | -0.049 | 0.022 | 4 | -0.085 | 0.040 | 4 | -0.075 | 0.051 | 4 | 0.140171734 |
| 4 | -0.036 | 0.026 | 4 | -0.041 | 0.072 | 4 | -0.099 | 0.112 | 4 | 0.140403806 |
| 4 | -0.082 | 0.022 | 4 | -0.030 | 0.045 | 4 | -0.008 | 0.023 | 4 | 0.140635878 |
| 4 | -0.048 | 0.022 | 4 | -0.058 | 0.029 | 4 | -0.026 | 0.028 | 4 | 0.140867951 |
| 4 | -0.024 | 0.029 | 4 | -0.073 | 0.062 | 4 | -0.110 | 0.031 | 4 | 0.141100023 |
| 3 | -0.053 | 0.027 | 4 | -0.097 | 0.041 | 4 | -0.042 | 0.016 | 4 | 0.141332096 |
| 4 | -0.095 | 0.023 | 4 | -0.085 | 0.064 | 4 | -0.026 | 0.060 | 4 | 0.141564168 |
| 4 | -0.026 | 0.046 | 4 | -0.045 | 0.063 | 4 | -0.106 | 0.009 | 4 | 0.14179624 |
| | -0.044 | 0.009 | 2 | -0.048 | 0.016 | 2 | -0.064 | 0.001 | 2 | 0.142028313 |
| 4 | -0.051 | 0.024 | 4 | -0.064 | 0.039 | 4 | -0.069 | 0.039 | 4 | 0.142260385 |
| 3 | -0.018 | 0.006 | 3 | -0.052 | 0.062 | 3 | -0.045 | 0.022 | 3 | 0.142492458 |
| 4 | -0.075 | 0.016 | 4 | -0.110 | 0.064 | 4 | -0.112 | 0.057 | 4 | 0.14272453 |
| 2 | -0.030 | 0.017 | 2 | -0.074 | 0.007 | 2 | -0.026 | 0.014 | 2 | 0.142956602 |
| 4 | -0.146 | 0.014 | 4 | 0.008 | 0.049 | 4 | 0.019 | 0.021 | 4 | 0.143188675 |
| 2 | 0.011 | 0.009 | 2 | 0.028 | 0.041 | 2 | -0.218 | 0.082 | 2 | 0.143420747 |
| 2 | -0.029 | 0.028 | 2 | -0.071 | 0.009 | 2 | -0.073 | 0.004 | 2 | 0.14365282 |
| 4 | -0.030 | 0.039 | 4 | -0.057 | 0.043 | 4 | -0.041 | 0.050 | 4 | 0.143884892 |
| 2 | -0.037 | 0.044 | 2 | -0.058 | 0.056 | 2 | -0.067 | 0.081 | 2 | 0.144116964 |
| 4 | -0.023 | 0.044 | 4 | -0.103 | 0.031 | 4 | -0.059 | 0.012 | 4 | 0.144349037 |
| 4 | 0.023 | 0.029 | 4 | -0.069 | 0.022 | 4 | -0.096 | 0.016 | 4 | 0.144581109 |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 4 | | -0.102 | 0.056 | 4 | -0.048 | 0.064 | 4 | -0.053 | 0.039 | 4 | 0.144813182 |
| 4 | | -0.026 | 0.018 | 4 | -0.065 | 0.032 | 4 | -0.072 | 0.028 | 4 | 0.145045254 |
| 4 | | -0.053 | 0.014 | 4 | -0.051 | 0.018 | 4 | -0.023 | 0.032 | 4 | 0.145277327 |
| 4 | | -0.057 | 0.037 | 4 | -0.075 | 0.043 | 4 | -0.050 | 0.016 | 4 | 0.145509399 |
| 4 | | 0.010 | 0.037 | 4 | 0.006 | 0.053 | 4 | -0.243 | 0.330 | 4 | 0.145741471 |
| 4 | | -0.029 | 0.028 | 4 | -0.070 | 0.034 | 4 | -0.081 | 0.015 | 4 | 0.145973544 |
| 4 | | 0.035 | 0.009 | 4 | -0.084 | 0.051 | 4 | -0.078 | 0.043 | 4 | 0.146205616 |
| 2 | | -0.037 | 0.023 | 2 | -0.087 | 0.027 | 2 | -0.079 | 0.057 | 2 | 0.146437689 |
| 4 | | -0.044 | 0.026 | 4 | 0.047 | 0.036 | 4 | -0.140 | 0.230 | 4 | 0.146669761 |
| 2 | | -0.045 | 0.016 | 2 | -0.027 | 0.041 | 2 | -0.069 | 0.001 | 2 | 0.146901833 |
| 4 | | 0.005 | 0.013 | 4 | -0.044 | 0.014 | 4 | -0.077 | 0.008 | 4 | 0.147133906 |
| 3 | | -0.027 | 0.013 | 3 | 0.041 | 0.044 | 3 | -0.041 | 0.001 | 3 | 0.147365978 |
| 2 | | 0.028 | 0.024 | 2 | -0.014 | 0.006 | 2 | -0.144 | 0.001 | 2 | 0.147598051 |
| 4 | | -0.037 | 0.021 | 4 | -0.045 | 0.054 | 4 | -0.046 | 0.055 | 4 | 0.147830123 |
| 3 | | -0.044 | 0.042 | 4 | -0.110 | 0.047 | 4 | -0.151 | 0.090 | 4 | 0.148062195 |
| 4 | | -0.057 | 0.021 | 4 | -0.069 | 0.040 | 4 | -0.054 | 0.020 | 4 | 0.148294268 |
| 4 | | -0.056 | 0.047 | 4 | -0.071 | 0.093 | 4 | -0.075 | 0.066 | 4 | 0.14852634 |
| 4 | | 0.001 | 0.011 | 4 | -0.080 | 0.033 | 4 | -0.111 | 0.071 | 4 | 0.148758413 |
| 4 | 2 | -0.032 | 0.007 | 2 | -0.006 | 0.042 | 2 | 0.122 | 0.026 | 2 | 0.148990485 |
| 2 | | -0.034 | 0.068 | 3 | -0.093 | 0.027 | 3 | -0.024 | 0.003 | 3 | 0.149222557 |
| 4 | | -0.035 | 0.041 | 4 | -0.104 | 0.022 | 4 | -0.059 | 0.040 | 4 | 0.14945463 |
| | | -0.120 | 0.026 | 3 | 0.034 | 0.047 | 3 | -0.065 | 0.013 | 3 | 0.149686702 |
| 4 | | -0.011 | 0.026 | 4 | -0.041 | 0.027 | 4 | -0.040 | 0.012 | 4 | 0.149918775 |
| 4 | | 0.005 | 0.042 | 4 | -0.091 | 0.029 | 4 | -0.095 | 0.028 | 4 | 0.150150847 |
| 4 | | -0.063 | 0.016 | 4 | -0.058 | 0.030 | 4 | -0.038 | 0.034 | 4 | 0.150382919 |
| 4 | | -0.013 | 0.038 | 4 | -0.085 | 0.048 | 4 | -0.043 | 0.030 | 4 | 0.150614992 |
| 2 | | -0.031 | 0.029 | 2 | -0.100 | 0.017 | 2 | -0.073 | 0.014 | 2 | 0.150847064 |
| 4 | | -0.032 | 0.039 | 4 | -0.083 | 0.046 | 4 | -0.049 | 0.004 | 4 | 0.151079137 |
| 2 | | -0.069 | 0.064 | 2 | -0.061 | 0.048 | 2 | -0.067 | 0.011 | 2 | 0.151311209 |
| 2 | | -0.028 | 0.012 | 2 | -0.054 | 0.026 | 2 | -0.026 | 0.023 | 2 | 0.151543282 |
| 2 | | -0.067 | 0.032 | 2 | -0.057 | 0.044 | 2 | -0.111 | 0.003 | 2 | 0.151775354 |
| 4 | | 0.003 | 0.019 | 4 | -0.066 | 0.052 | 4 | -0.055 | 0.027 | 4 | 0.152007426 |
| 4 | | -0.054 | 0.030 | 4 | -0.008 | 0.024 | 4 | -0.094 | 0.072 | 4 | 0.152239499 |
| 4 | | -0.030 | 0.029 | 4 | -0.053 | 0.042 | 4 | -0.131 | 0.129 | 4 | 0.152471571 |
| 4 | | -0.048 | 0.049 | 4 | -0.047 | 0.024 | 4 | -0.067 | 0.025 | 4 | 0.152703644 |
| 4 | | -0.053 | 0.054 | 4 | -0.050 | 0.066 | 4 | -0.040 | 0.048 | 4 | 0.152935716 |
| 4 | | -0.045 | 0.014 | 4 | -0.032 | 0.033 | 4 | -0.022 | 0.015 | 4 | 0.153167788 |
| 4 | | -0.015 | 0.043 | 4 | -0.010 | 0.036 | 4 | -0.040 | 0.028 | 4 | 0.153399861 |
| 4 | | 0.000 | 0.030 | 4 | -0.039 | 0.029 | 4 | -0.080 | 0.036 | 4 | 0.153631933 |
| 3 | | -0.039 | 0.011 | 4 | -0.022 | 0.024 | 4 | -0.071 | 0.022 | 4 | 0.153864006 |
| 2 | | -0.012 | 0.007 | 2 | -0.089 | 0.055 | 2 | -0.105 | 0.053 | 2 | 0.154096078 |
| 4 | | -0.024 | 0.023 | 4 | -0.060 | 0.026 | 4 | -0.069 | 0.013 | 4 | 0.15432815 |
| 4 | | -0.030 | 0.027 | 4 | -0.057 | 0.031 | 4 | -0.049 | 0.012 | 4 | 0.154560223 |
| 4 | | -0.050 | 0.016 | 4 | -0.063 | 0.032 | 4 | -0.075 | 0.028 | 4 | 0.154792295 |
| 4 | | -0.048 | 0.037 | 4 | -0.045 | 0.037 | 4 | -0.052 | 0.011 | 4 | 0.155024368 |
| | | -0.177 | 0.014 | 3 | 0.036 | 0.031 | 3 | -0.008 | 0.032 | 3 | 0.15525644 |
| 2 | | 0.010 | 0.037 | 2 | 0.003 | 0.075 | 2 | -0.154 | 0.016 | 2 | 0.155488512 |
| 4 | | 0.008 | 0.038 | 4 | -0.025 | 0.039 | 4 | -0.180 | 0.201 | 4 | 0.155720585 |
| 4 | | -0.146 | 0.026 | 4 | -0.016 | 0.062 | 4 | -0.013 | 0.044 | 4 | 0.155952657 |
| 4 | | -0.022 | 0.036 | 4 | -0.063 | 0.031 | 4 | -0.047 | 0.020 | 4 | 0.15618473 |
| 4 | | -0.015 | 0.031 | 4 | -0.055 | 0.054 | 4 | -0.050 | 0.026 | 4 | 0.156416802 |
| 4 | | -0.038 | 0.018 | 4 | -0.084 | 0.031 | 4 | -0.091 | 0.031 | 4 | 0.156648874 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 4 | -0.045 | 0.014 | 4 | -0.049 | 0.028 | 4 | -0.049 | 0.022 | 4 | 0.156880947 |
| 3 | -0.113 | 0.032 | 4 | -0.004 | 0.014 | 4 | -0.087 | 0.027 | 4 | 0.157113019 |
| | -0.131 | 0.053 | 4 | -0.039 | 0.039 | 4 | 0.022 | 0.025 | 4 | 0.157345092 |
| 4 | -0.017 | 0.014 | 4 | -0.032 | 0.039 | 4 | -0.045 | 0.012 | 4 | 0.157577164 |
| 4 | -0.086 | 0.028 | 4 | -0.036 | 0.041 | 4 | -0.003 | 0.015 | 4 | 0.157809236 |
| 4 | -0.031 | 0.053 | 4 | -0.042 | 0.077 | 4 | -0.095 | 0.047 | 4 | 0.158041309 |
| 2 | -0.057 | 0.015 | 3 | -0.108 | 0.071 | 3 | -0.057 | 0.059 | 3 | 0.158273381 |
| 4 | -0.051 | 0.032 | 4 | -0.058 | 0.042 | 4 | -0.071 | 0.027 | 4 | 0.158505454 |
| 4 | -0.003 | 0.043 | 4 | -0.098 | 0.042 | 4 | -0.091 | 0.017 | 4 | 0.158737526 |
| 4 | -0.013 | 0.022 | 4 | -0.037 | 0.041 | 4 | -0.054 | 0.016 | 4 | 0.158969599 |
| 3 | 0.041 | 0.048 | 3 | -0.003 | 0.042 | 3 | -0.088 | 0.080 | 3 | 0.159201671 |
| 4 | -0.060 | 0.016 | 4 | -0.086 | 0.064 | 4 | -0.019 | 0.012 | 4 | 0.159433743 |
| 4 | -0.016 | 0.012 | 4 | -0.079 | 0.025 | 4 | -0.026 | 0.008 | 4 | 0.159665816 |
| 4 | -0.053 | 0.023 | 4 | -0.095 | 0.048 | 4 | -0.063 | 0.017 | 4 | 0.159897888 |
| 4 | -0.027 | 0.043 | 4 | -0.063 | 0.051 | 4 | -0.054 | 0.042 | 4 | 0.160129961 |
| 4 | -0.019 | 0.036 | 4 | -0.091 | 0.053 | 4 | -0.054 | 0.066 | 4 | 0.160362033 |
| 4 | -0.056 | 0.035 | 4 | -0.069 | 0.063 | 4 | -0.049 | 0.033 | 4 | 0.160594105 |
| 2 | -0.023 | 0.050 | 2 | -0.044 | 0.009 | 2 | -0.007 | 0.037 | 2 | 0.160826178 |
| 4 | -0.031 | 0.017 | 4 | -0.024 | 0.064 | 4 | -0.039 | 0.018 | 4 | 0.16105825 |
| 2 | -0.010 | 0.005 | 2 | -0.010 | 0.040 | 2 | -0.075 | 0.015 | 2 | 0.161290323 |
| 4 | -0.021 | 0.028 | 4 | -0.062 | 0.053 | 4 | -0.062 | 0.024 | 4 | 0.161522395 |
| 4 | -0.038 | 0.028 | 4 | -0.060 | 0.034 | 4 | -0.043 | 0.031 | 4 | 0.161754467 |
| 3 | -0.155 | 0.060 | 4 | -0.007 | 0.017 | 4 | 0.110 | 0.034 | 4 | 0.16198654 |
| 4 | -0.006 | 0.018 | 4 | -0.068 | 0.029 | 4 | -0.088 | 0.009 | 4 | 0.162218612 |
| 4 | -0.054 | 0.035 | 4 | -0.103 | 0.058 | 4 | -0.060 | 0.030 | 4 | 0.162450685 |
| 4 | -0.055 | 0.038 | 4 | -0.055 | 0.023 | 4 | -0.056 | 0.030 | 4 | 0.162682757 |
| 4 | -0.024 | 0.008 | 4 | -0.050 | 0.022 | 4 | -0.082 | 0.012 | 4 | 0.162914829 |
| 2 | -0.021 | 0.024 | 2 | -0.090 | 0.008 | 2 | -0.038 | 0.041 | 2 | 0.163146902 |
| 4 | -0.023 | 0.047 | 4 | -0.105 | 0.031 | 4 | -0.001 | 0.020 | 4 | 0.163378974 |
| 3 | -0.013 | 0.019 | 4 | -0.017 | 0.025 | 4 | -0.126 | 0.139 | 4 | 0.163611047 |
| 4 | -0.006 | 0.026 | 4 | -0.066 | 0.024 | 4 | -0.084 | 0.043 | 4 | 0.163843119 |
| 4 | -0.053 | 0.034 | 4 | -0.033 | 0.057 | 4 | -0.022 | 0.053 | 4 | 0.164075191 |
| 4 | -0.067 | 0.030 | 4 | -0.023 | 0.041 | 4 | -0.088 | 0.031 | 4 | 0.164307264 |
| 4 | -0.026 | 0.018 | 4 | -0.059 | 0.036 | 4 | -0.042 | 0.019 | 4 | 0.164539336 |
| 3 | 0.054 | 0.012 | 3 | -0.089 | 0.077 | 3 | -0.033 | 0.020 | 3 | 0.164771409 |
| 4 | -0.041 | 0.038 | 4 | -0.031 | 0.052 | 4 | -0.076 | 0.088 | 4 | 0.165003481 |
| 4 | -0.050 | 0.048 | 4 | -0.029 | 0.027 | 4 | -0.048 | 0.033 | 4 | 0.165235553 |
| 4 | -0.040 | 0.025 | 4 | -0.048 | 0.034 | 4 | -0.057 | 0.008 | 4 | 0.165467626 |
| 2 | -0.071 | 0.005 | 2 | -0.067 | 0.018 | 2 | -0.023 | 0.004 | 2 | 0.165699698 |
| 2 | -0.152 | 0.056 | 2 | -0.058 | 0.024 | 2 | -0.090 | 0.006 | 2 | 0.165931771 |
| 4 | -0.001 | 0.023 | 4 | -0.099 | 0.050 | 4 | -0.079 | 0.019 | 4 | 0.166163843 |
| 4 | -0.012 | 0.025 | 4 | -0.021 | 0.030 | 4 | -0.055 | 0.038 | 4 | 0.166395916 |
| 4 | -0.034 | 0.039 | 4 | -0.040 | 0.035 | 4 | -0.062 | 0.024 | 4 | 0.166627988 |
| 4 | -0.020 | 0.025 | 4 | -0.050 | 0.037 | 4 | -0.038 | 0.016 | 4 | 0.16686006 |
| 4 | -0.043 | 0.040 | 4 | -0.044 | 0.035 | 4 | -0.090 | 0.020 | 4 | 0.167092133 |
| 4 | -0.007 | 0.013 | 4 | -0.065 | 0.044 | 4 | -0.113 | 0.134 | 4 | 0.167324205 |
| 4 | -0.040 | 0.017 | 4 | -0.044 | 0.045 | 4 | -0.083 | 0.011 | 4 | 0.167556278 |
| 4 | -0.027 | 0.008 | 4 | -0.020 | 0.031 | 4 | -0.116 | 0.129 | 4 | 0.16778835 |
| 2 | -0.046 | 0.045 | 2 | -0.063 | 0.036 | 2 | -0.069 | 0.007 | 2 | 0.168020422 |
| 2 | -0.044 | 0.035 | 4 | -0.094 | 0.025 | 4 | -0.065 | 0.034 | 4 | 0.168252495 |
| 4 | 0.015 | 0.012 | 4 | -0.002 | 0.037 | 4 | -0.205 | 0.223 | 4 | 0.168484567 |
| 2 | -0.145 | 0.042 | 2 | -0.066 | 0.015 | 2 | -0.020 | 0.033 | 2 | 0.16871664 |

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|---|---|---|---|---|---|---|---|---|---|---|
| 4 | -0.027 | 0.036 | 4 | -0.059 | 0.062 | 4 | -0.045 | 0.029 | 4 | 0.168948712 |
| 4 | -0.052 | 0.031 | 4 | -0.051 | 0.039 | 4 | -0.044 | 0.016 | 4 | 0.169180784 |
| 4 | -0.049 | 0.025 | 4 | -0.067 | 0.018 | 4 | -0.036 | 0.017 | 4 | 0.169412857 |
| 4 | -0.006 | 0.020 | 4 | -0.077 | 0.064 | 4 | -0.041 | 0.040 | 4 | 0.169644929 |
| 4 | -0.040 | 0.023 | 4 | -0.041 | 0.021 | 4 | -0.029 | 0.006 | 4 | 0.169877002 |
| 4 | -0.014 | 0.035 | 4 | -0.084 | 0.078 | 4 | -0.081 | 0.077 | 4 | 0.170109074 |
| 4 | -0.016 | 0.041 | 4 | -0.069 | 0.022 | 4 | -0.045 | 0.034 | 4 | 0.170341146 |
| 2 | -0.043 | 0.047 | 2 | -0.189 | 0.031 | 2 | -0.081 | 0.011 | 2 | 0.170573219 |
| 2 | -0.029 | 0.013 | 2 | -0.049 | 0.013 | 2 | -0.037 | 0.030 | 2 | 0.170805291 |
| 4 | -0.051 | 0.040 | 4 | -0.063 | 0.053 | 4 | -0.051 | 0.042 | 4 | 0.171037364 |
| 4 | -0.032 | 0.020 | 4 | 0.002 | 0.032 | 4 | -0.049 | 0.016 | 4 | 0.171269436 |
| 4 | -0.114 | 0.052 | 4 | -0.068 | 0.064 | 4 | 0.038 | 0.017 | 4 | 0.171501508 |
| 4 | -0.011 | 0.019 | 4 | -0.089 | 0.037 | 4 | -0.049 | 0.012 | 4 | 0.171733581 |
| 4 | -0.023 | 0.025 | 4 | -0.100 | 0.046 | 4 | -0.050 | 0.055 | 4 | 0.171965653 |
| 2 | 0.006 | 0.056 | 2 | -0.010 | 0.082 | 2 | -0.140 | 0.073 | 2 | 0.172197726 |
| 4 | -0.008 | 0.011 | 4 | -0.001 | 0.036 | 4 | -0.028 | 0.041 | 4 | 0.172429798 |
| 4 | -0.069 | 0.035 | 4 | -0.068 | 0.031 | 4 | 0.007 | 0.016 | 4 | 0.172661871 |
| 2 | -0.056 | 0.011 | 2 | -0.059 | 0.002 | 2 | -0.014 | 0.023 | 2 | 0.172893943 |
| 4 | -0.006 | 0.050 | 4 | -0.094 | 0.074 | 4 | -0.044 | 0.017 | 4 | 0.173126015 |
| 4 | -0.070 | 0.016 | 4 | -0.042 | 0.021 | 4 | -0.018 | 0.007 | 4 | 0.173358088 |
| 4 | -0.017 | 0.026 | 4 | -0.025 | 0.033 | 4 | -0.156 | 0.098 | 4 | 0.17359016 |
| 2 | 0.007 | 0.028 | 2 | -0.069 | 0.002 | 2 | -0.055 | 0.005 | 2 | 0.173822233 |
| 4 | -0.064 | 0.061 | 4 | -0.059 | 0.058 | 4 | -0.035 | 0.047 | 4 | 0.174054305 |
| 4 | -0.043 | 0.029 | 4 | -0.080 | 0.039 | 4 | -0.022 | 0.007 | 4 | 0.174286377 |
| 2 | -0.023 | 0.060 | 2 | -0.016 | 0.015 | 2 | -0.128 | 0.040 | 2 | 0.17451845 |
| 4 | 0.003 | 0.020 | 4 | -0.048 | 0.046 | 4 | -0.085 | 0.024 | 4 | 0.174750522 |
| 4 | -0.014 | 0.041 | 4 | -0.016 | 0.033 | 4 | -0.065 | 0.054 | 4 | 0.174982595 |
| 4 | -0.031 | 0.034 | 4 | -0.062 | 0.016 | 4 | -0.042 | 0.020 | 4 | 0.175214667 |
| 4 | 0.025 | 0.019 | 4 | -0.082 | 0.046 | 4 | -0.026 | 0.028 | 4 | 0.175446739 |
| 4 | -0.038 | 0.019 | 4 | 0.019 | 0.030 | 4 | -0.036 | 0.040 | 4 | 0.175678812 |
| 4 | -0.049 | 0.033 | 4 | -0.021 | 0.027 | 4 | -0.083 | 0.086 | 4 | 0.175910884 |
| 4 | -0.058 | 0.018 | 4 | -0.057 | 0.031 | 4 | 0.003 | 0.024 | 4 | 0.176142957 |
| 3 | -0.045 | 0.030 | 4 | -0.046 | 0.044 | 4 | -0.064 | 0.012 | 4 | 0.176375029 |
| 4 | -0.050 | 0.017 | 4 | 0.025 | 0.026 | 4 | -0.068 | 0.031 | 4 | 0.176607101 |
| 4 | -0.017 | 0.031 | 4 | -0.075 | 0.047 | 4 | -0.041 | 0.039 | 4 | 0.176839174 |
| 3 | -0.088 | 0.033 | 4 | -0.072 | 0.039 | 4 | 0.015 | 0.027 | 4 | 0.177071246 |
| 2 | -0.052 | 0.053 | 2 | -0.133 | 0.001 | 2 | -0.051 | 0.012 | 2 | 0.177303319 |
| 4 | -0.040 | 0.012 | 4 | 0.005 | 0.067 | 4 | -0.050 | 0.027 | 4 | 0.177535391 |
| 4 | -0.074 | 0.026 | 4 | -0.028 | 0.035 | 4 | -0.039 | 0.007 | 4 | 0.177767463 |
| 3 | -0.052 | 0.044 | 4 | -0.016 | 0.043 | 4 | -0.101 | 0.154 | 4 | 0.177999536 |
| 4 | -0.128 | 0.013 | 4 | -0.032 | 0.028 | 4 | 0.013 | 0.013 | 4 | 0.178231608 |
| 4 | -0.012 | 0.019 | 4 | -0.041 | 0.037 | 4 | -0.020 | 0.007 | 4 | 0.178463681 |
| 4 | -0.029 | 0.028 | 4 | -0.053 | 0.038 | 4 | -0.040 | 0.033 | 4 | 0.178695753 |
| 4 | -0.056 | 0.021 | 4 | -0.044 | 0.030 | 4 | -0.050 | 0.005 | 4 | 0.178927825 |
| 2 | -0.076 | 0.085 | 2 | -0.084 | 0.020 | 2 | -0.050 | 0.041 | 2 | 0.179159898 |
| 3 | -0.059 | 0.041 | 3 | -0.056 | 0.033 | 3 | -0.004 | 0.029 | 3 | 0.17939197 |
| 4 | -0.073 | 0.042 | 4 | -0.039 | 0.040 | 4 | -0.050 | 0.021 | 4 | 0.179624043 |
| 4 | -0.017 | 0.033 | 4 | -0.027 | 0.048 | 4 | -0.038 | 0.037 | 4 | 0.179856115 |
| 2 | -0.012 | 0.022 | 2 | -0.087 | 0.014 | 2 | -0.067 | 0.018 | 2 | 0.180088188 |
| 4 | -0.044 | 0.020 | 4 | -0.023 | 0.031 | 4 | -0.033 | 0.023 | 4 | 0.18032026 |
| 4 | -0.036 | 0.020 | 4 | -0.021 | 0.018 | 4 | -0.037 | 0.029 | 4 | 0.180552332 |
| 4 | -0.028 | 0.028 | 4 | -0.056 | 0.042 | 4 | -0.058 | 0.026 | 4 | 0.180784405 |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| 3 | | -0.020 | 0.022 | 3 | -0.078 | 0.015 | 3 | -0.093 | 0.021 | 3 | 0.181016477 |
| 4 | | 0.005 | 0.025 | 4 | -0.014 | 0.065 | 4 | -0.164 | 0.188 | 4 | 0.18124855 |
| 4 | | -0.011 | 0.047 | 4 | -0.078 | 0.049 | 4 | -0.077 | 0.038 | 4 | 0.181480622 |
| 3 | 1 | 0.011 | 0.015 | 2 | -0.111 | 0.038 | 2 | 0.026 | 0.036 | 2 | 0.181712694 |
| 4 | | -0.005 | 0.021 | 4 | 0.010 | 0.044 | 4 | -0.044 | 0.052 | 4 | 0.181944767 |
| 4 | | -0.008 | 0.025 | 4 | -0.014 | 0.042 | 4 | -0.089 | 0.105 | 4 | 0.182176839 |
| 2 | | -0.021 | 0.020 | 2 | -0.101 | 0.051 | 2 | -0.056 | 0.030 | 2 | 0.182408912 |
| 4 | | -0.014 | 0.019 | 4 | -0.050 | 0.043 | 4 | -0.070 | 0.039 | 4 | 0.182640984 |
| 4 | | -0.029 | 0.020 | 4 | -0.042 | 0.069 | 4 | -0.048 | 0.057 | 4 | 0.182873056 |
| 4 | | -0.019 | 0.014 | 4 | -0.066 | 0.050 | 4 | -0.069 | 0.036 | 4 | 0.183105129 |
| 2 | | -0.173 | 0.044 | 3 | -0.043 | 0.032 | 3 | 0.192 | 0.028 | 3 | 0.183337201 |
| 3 | | -0.024 | 0.027 | 3 | -0.008 | 0.067 | 3 | -0.133 | 0.264 | 3 | 0.183569274 |
| 4 | | -0.020 | 0.030 | 4 | -0.072 | 0.032 | 4 | -0.038 | 0.009 | 4 | 0.183801346 |
| 2 | | -0.041 | 0.000 | 2 | -0.080 | 0.022 | 2 | -0.061 | 0.006 | 2 | 0.184033418 |
| 4 | | 0.024 | 0.027 | 4 | -0.029 | 0.042 | 4 | -0.143 | 0.213 | 4 | 0.184265491 |
| 4 | | 0.009 | 0.021 | 4 | -0.013 | 0.038 | 4 | -0.183 | 0.162 | 4 | 0.184497563 |
| 4 | | -0.004 | 0.058 | 4 | -0.098 | 0.050 | 4 | -0.064 | 0.038 | 4 | 0.184729636 |
| 4 | | -0.033 | 0.012 | 4 | -0.071 | 0.017 | 4 | -0.039 | 0.026 | 4 | 0.184961708 |
| 4 | | -0.012 | 0.029 | 4 | -0.071 | 0.061 | 4 | -0.045 | 0.086 | 4 | 0.18519378 |
| 4 | | -0.057 | 0.090 | 4 | -0.025 | 0.070 | 4 | -0.043 | 0.077 | 4 | 0.185425853 |
| 4 | | -0.022 | 0.026 | 4 | -0.034 | 0.050 | 4 | -0.064 | 0.023 | 4 | 0.185657925 |
| 4 | | -0.048 | 0.022 | 4 | -0.045 | 0.051 | 4 | -0.029 | 0.039 | 4 | 0.185889998 |
| 4 | | -0.017 | 0.051 | 4 | -0.051 | 0.073 | 4 | -0.043 | 0.046 | 4 | 0.18612207 |
| 4 | | -0.028 | 0.038 | 4 | -0.092 | 0.029 | 4 | 0.027 | 0.025 | 4 | 0.186354142 |
| 3 | | -0.003 | 0.046 | 3 | -0.063 | 0.029 | 3 | -0.047 | 0.024 | 3 | 0.186586215 |
| 4 | | -0.015 | 0.029 | 4 | -0.053 | 0.006 | 4 | -0.025 | 0.026 | 4 | 0.186818287 |
| 4 | | -0.056 | 0.026 | 4 | -0.067 | 0.019 | 4 | -0.038 | 0.042 | 4 | 0.18705036 |
| 4 | | -0.020 | 0.052 | 4 | -0.074 | 0.066 | 4 | -0.038 | 0.058 | 4 | 0.187282432 |
| 2 | | -0.009 | 0.026 | 3 | -0.096 | 0.012 | 3 | -0.013 | 0.079 | 3 | 0.187514505 |
| 4 | | -0.012 | 0.017 | 4 | -0.068 | 0.040 | 4 | -0.023 | 0.029 | 4 | 0.187746577 |
| 4 | | -0.013 | 0.026 | 4 | -0.059 | 0.035 | 4 | -0.049 | 0.017 | 4 | 0.187978649 |
| 4 | | 0.047 | 0.024 | 4 | -0.013 | 0.040 | 4 | -0.078 | 0.063 | 4 | 0.188210722 |
| 4 | | -0.033 | 0.041 | 4 | 0.006 | 0.057 | 4 | -0.140 | 0.129 | 4 | 0.188442794 |
| 2 | | -0.005 | 0.040 | 2 | 0.000 | 0.045 | 2 | -0.076 | 0.010 | 2 | 0.188674867 |
| 4 | | -0.040 | 0.023 | 4 | -0.082 | 0.025 | 4 | -0.032 | 0.030 | 4 | 0.188906939 |
| 4 | | -0.036 | 0.021 | 4 | -0.061 | 0.024 | 4 | -0.051 | 0.023 | 4 | 0.189139011 |
| 4 | | -0.059 | 0.019 | 4 | -0.045 | 0.040 | 4 | -0.034 | 0.035 | 4 | 0.189371084 |
| 4 | | -0.092 | 0.039 | 4 | -0.117 | 0.089 | 4 | -0.007 | 0.061 | 4 | 0.189603156 |
| 4 | | -0.021 | 0.037 | 4 | -0.038 | 0.073 | 4 | -0.016 | 0.032 | 4 | 0.189835229 |
| 3 | | -0.062 | 0.065 | 4 | -0.134 | 0.083 | 4 | -0.008 | 0.050 | 4 | 0.190067301 |
| 4 | | -0.040 | 0.048 | 4 | -0.035 | 0.070 | 4 | -0.057 | 0.050 | 4 | 0.190299373 |
| 4 | | -0.029 | 0.019 | 4 | -0.067 | 0.056 | 4 | -0.013 | 0.026 | 4 | 0.190531446 |
| 4 | | 0.024 | 0.012 | 4 | -0.004 | 0.035 | 4 | -0.063 | 0.014 | 4 | 0.190763518 |
| 4 | | -0.036 | 0.040 | 4 | -0.069 | 0.065 | 4 | -0.041 | 0.025 | 4 | 0.190995591 |
| 4 | | -0.037 | 0.026 | 4 | -0.039 | 0.043 | 4 | -0.040 | 0.045 | 4 | 0.191227663 |
| 4 | | -0.041 | 0.048 | 4 | -0.070 | 0.087 | 4 | -0.037 | 0.054 | 4 | 0.191459735 |
| 3 | | -0.063 | 0.016 | 3 | -0.028 | 0.050 | 3 | -0.091 | 0.016 | 3 | 0.191691808 |
| 4 | | -0.046 | 0.041 | 4 | -0.031 | 0.033 | 4 | 0.006 | 0.054 | 4 | 0.19192388 |
| 4 | | -0.011 | 0.032 | 4 | -0.072 | 0.035 | 4 | -0.047 | 0.030 | 4 | 0.192155953 |
| 4 | | -0.019 | 0.007 | 4 | -0.052 | 0.036 | 4 | -0.030 | 0.038 | 4 | 0.192388025 |
| 3 | | -0.017 | 0.026 | 4 | -0.057 | 0.030 | 4 | -0.028 | 0.016 | 4 | 0.192620097 |
| 2 | | 0.005 | 0.008 | 2 | -0.091 | 0.032 | 2 | -0.023 | 0.025 | 2 | 0.19285217 |

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|---|---|---|---|---|---|---|---|---|---|---|
| 2 | -0.024 | 0.017 | 2 | -0.080 | 0.048 | 2 | -0.043 | 0.018 | 2 | 0.193084242 |
| 4 | -0.026 | 0.039 | 4 | -0.057 | 0.060 | 4 | -0.006 | 0.029 | 4 | 0.193316315 |
| 4 | -0.030 | 0.028 | 4 | -0.063 | 0.015 | 4 | -0.031 | 0.016 | 4 | 0.193548387 |
| 4 | 0.019 | 0.038 | 4 | -0.064 | 0.035 | 4 | -0.038 | 0.057 | 4 | 0.19378046 |
| 4 | -0.019 | 0.042 | 4 | -0.006 | 0.079 | 4 | -0.042 | 0.053 | 4 | 0.194012532 |
| 4 | 0.022 | 0.013 | 4 | -0.041 | 0.051 | 4 | -0.141 | 0.127 | 4 | 0.194244604 |
| 4 | 0.001 | 0.039 | 4 | -0.013 | 0.055 | 4 | -0.095 | 0.026 | 4 | 0.194476677 |
| 3 | -0.002 | 0.017 | 4 | -0.030 | 0.024 | 4 | -0.051 | 0.031 | 4 | 0.194708749 |
| 2 | -0.021 | 0.001 | 2 | -0.050 | 0.013 | 2 | -0.030 | 0.010 | 2 | 0.194940822 |
| 2 | -0.003 | 0.027 | 2 | -0.064 | 0.036 | 2 | -0.064 | 0.003 | 2 | 0.195172894 |
| 4 | -0.027 | 0.026 | 4 | -0.016 | 0.049 | 4 | -0.047 | 0.051 | 4 | 0.195404966 |
| 4 | -0.022 | 0.021 | 4 | -0.026 | 0.047 | 4 | -0.058 | 0.043 | 4 | 0.195637039 |
| 4 | -0.030 | 0.024 | 4 | -0.029 | 0.028 | 4 | -0.097 | 0.122 | 4 | 0.195869111 |
| 3 | -0.037 | 0.024 | 3 | -0.060 | 0.098 | 3 | -0.041 | 0.079 | 3 | 0.196101184 |
| 4 | -0.027 | 0.022 | 4 | -0.096 | 0.033 | 4 | -0.035 | 0.020 | 4 | 0.196333256 |
| 4 | -0.018 | 0.042 | 4 | -0.003 | 0.031 | 4 | -0.153 | 0.140 | 4 | 0.196565328 |
| 4 | 0.039 | 0.014 | 4 | 0.006 | 0.046 | 4 | -0.165 | 0.255 | 4 | 0.196797401 |
| 4 | -0.032 | 0.043 | 4 | -0.055 | 0.036 | 4 | -0.035 | 0.032 | 4 | 0.197029473 |
| 4 | 0.026 | 0.014 | 4 | -0.073 | 0.048 | 4 | -0.067 | 0.099 | 4 | 0.197261546 |
| 4 | -0.027 | 0.031 | 4 | -0.021 | 0.051 | 4 | -0.111 | 0.116 | 4 | 0.197493618 |
| 4 | -0.044 | 0.051 | 4 | -0.065 | 0.023 | 4 | -0.076 | 0.038 | 4 | 0.19772569 |
| | -0.019 | 0.013 | 2 | -0.072 | 0.015 | 2 | -0.037 | 0.020 | 2 | 0.197957763 |
| 2 | -0.060 | 0.007 | 2 | -0.074 | 0.024 | 2 | -0.030 | 0.038 | 2 | 0.198189835 |
| 4 | 0.006 | 0.028 | 4 | 0.038 | 0.058 | 4 | -0.193 | 0.148 | 4 | 0.198421908 |
| 2 | -0.016 | 0.021 | 2 | -0.121 | 0.031 | 2 | -0.081 | 0.023 | 2 | 0.19865398 |
| 4 | -0.032 | 0.036 | 4 | -0.054 | 0.043 | 4 | -0.136 | 0.217 | 4 | 0.198886052 |
| 4 | -0.030 | 0.050 | 4 | -0.030 | 0.032 | 4 | -0.047 | 0.029 | 4 | 0.199118125 |
| 4 | 0.008 | 0.056 | 4 | -0.024 | 0.029 | 4 | -0.058 | 0.025 | 4 | 0.199350197 |
| 4 | -0.064 | 0.021 | 4 | -0.021 | 0.036 | 4 | -0.076 | 0.029 | 4 | 0.19958227 |
| 4 | -0.050 | 0.009 | 4 | -0.060 | 0.044 | 4 | -0.024 | 0.047 | 4 | 0.199814342 |
| 4 | -0.027 | 0.016 | 4 | -0.057 | 0.039 | 4 | -0.009 | 0.029 | 4 | 0.200046414 |
| 4 | -0.011 | 0.019 | 4 | -0.049 | 0.021 | 4 | -0.036 | 0.026 | 4 | 0.200278487 |
| 4 | -0.050 | 0.030 | 4 | -0.041 | 0.037 | 4 | -0.012 | 0.026 | 4 | 0.200510559 |
| 4 | -0.032 | 0.048 | 4 | -0.093 | 0.045 | 4 | -0.066 | 0.015 | 4 | 0.200742632 |
| 4 | 0.009 | 0.027 | 4 | -0.028 | 0.050 | 4 | -0.048 | 0.029 | 4 | 0.200974704 |
| 4 | -0.002 | 0.024 | 4 | -0.066 | 0.053 | 4 | -0.069 | 0.036 | 4 | 0.201206777 |
| 2 | -0.021 | 0.050 | 2 | -0.094 | 0.044 | 2 | -0.072 | 0.006 | 2 | 0.201438849 |
| 2 | 0.020 | 0.004 | 2 | 0.016 | 0.045 | 2 | -0.079 | 0.029 | 2 | 0.201670921 |
| 2 | -0.033 | 0.004 | 2 | -0.058 | 0.048 | 2 | -0.057 | 0.037 | 2 | 0.201902994 |
| 4 | -0.044 | 0.010 | 4 | -0.031 | 0.019 | 4 | -0.047 | 0.035 | 4 | 0.202135066 |
| 4 | -0.018 | 0.018 | 4 | -0.106 | 0.086 | 4 | -0.046 | 0.079 | 4 | 0.202367139 |
| 4 | 0.000 | 0.021 | 4 | -0.014 | 0.063 | 4 | -0.159 | 0.181 | 4 | 0.202599211 |
| 4 | -0.038 | 0.023 | 4 | -0.038 | 0.025 | 4 | -0.038 | 0.019 | 4 | 0.202831283 |
| 2 | -0.070 | 0.077 | 3 | -0.090 | 0.044 | 3 | -0.004 | 0.043 | 3 | 0.203063356 |
| 2 | -0.005 | 0.033 | 2 | -0.066 | 0.058 | 2 | -0.055 | 0.017 | 2 | 0.203295428 |
| 4 | 0.005 | 0.032 | 4 | -0.029 | 0.083 | 4 | -0.125 | 0.102 | 4 | 0.203527501 |
| 4 | -0.013 | 0.044 | 4 | -0.034 | 0.053 | 4 | -0.033 | 0.031 | 4 | 0.203759573 |
| 4 | -0.037 | 0.031 | 4 | -0.041 | 0.019 | 4 | -0.052 | 0.037 | 4 | 0.203991645 |
| 4 | -0.029 | 0.018 | 4 | -0.025 | 0.050 | 4 | -0.107 | 0.114 | 4 | 0.204223718 |
| 4 | 0.001 | 0.022 | 4 | -0.061 | 0.034 | 4 | -0.040 | 0.014 | 4 | 0.20445579 |
| 4 | -0.009 | 0.025 | 4 | -0.079 | 0.050 | 4 | -0.069 | 0.031 | 4 | 0.204687863 |
| 4 | -0.016 | 0.016 | 4 | -0.082 | 0.037 | 4 | -0.069 | 0.024 | 4 | 0.204919935 |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| 4 | | -0.010 | 0.008 | 4 | -0.088 | 0.037 | 4 | -0.043 | 0.017 | 4 | 0.205152007 |
| 4 | | -0.012 | 0.046 | 4 | -0.038 | 0.033 | 4 | -0.071 | 0.026 | 4 | 0.20538408 |
| 4 | | 0.004 | 0.018 | 4 | -0.052 | 0.022 | 4 | -0.050 | 0.035 | 4 | 0.205616152 |
| 4 | | -0.018 | 0.030 | 4 | -0.049 | 0.064 | 4 | -0.065 | 0.023 | 4 | 0.205848225 |
| 4 | | -0.011 | 0.016 | 4 | -0.059 | 0.040 | 4 | -0.043 | 0.019 | 4 | 0.206080297 |
| 4 | | -0.051 | 0.026 | 4 | -0.062 | 0.034 | 4 | -0.042 | 0.014 | 4 | 0.206312369 |
| 4 | | -0.012 | 0.030 | 4 | -0.057 | 0.030 | 4 | -0.035 | 0.014 | 4 | 0.206544442 |
| 3 | | -0.029 | 0.033 | 3 | -0.078 | 0.032 | 3 | -0.047 | 0.035 | 3 | 0.206776514 |
| 3 | | -0.021 | 0.040 | 4 | -0.081 | 0.043 | 4 | -0.027 | 0.031 | 4 | 0.207008587 |
| 3 | | -0.053 | 0.025 | 4 | -0.073 | 0.036 | 4 | -0.033 | 0.044 | 4 | 0.207240659 |
| 4 | | -0.042 | 0.032 | 4 | -0.044 | 0.078 | 4 | -0.026 | 0.045 | 4 | 0.207472731 |
| 4 | | -0.010 | 0.013 | 4 | -0.048 | 0.032 | 4 | -0.033 | 0.019 | 4 | 0.207704804 |
| 4 | | -0.025 | 0.020 | 4 | -0.074 | 0.049 | 4 | -0.036 | 0.034 | 4 | 0.207936876 |
| 4 | | -0.024 | 0.028 | 4 | -0.037 | 0.038 | 4 | -0.035 | 0.009 | 4 | 0.208168949 |
| 4 | | 0.012 | 0.042 | 4 | -0.095 | 0.035 | 4 | -0.057 | 0.035 | 4 | 0.208401021 |
| 4 | | -0.031 | 0.034 | 4 | -0.037 | 0.052 | 4 | -0.054 | 0.049 | 4 | 0.208633094 |
| 4 | | -0.040 | 0.022 | 4 | -0.049 | 0.030 | 4 | -0.050 | 0.031 | 4 | 0.208865166 |
| 4 | | -0.008 | 0.031 | 4 | -0.051 | 0.062 | 4 | -0.050 | 0.033 | 4 | 0.209097238 |
| 4 | | -0.038 | 0.020 | 4 | -0.071 | 0.055 | 4 | -0.032 | 0.054 | 4 | 0.209329311 |
| 4 | | -0.004 | 0.037 | 4 | -0.011 | 0.052 | 4 | -0.108 | 0.102 | 4 | 0.209561383 |
| 4 | | -0.026 | 0.035 | 4 | -0.060 | 0.041 | 4 | -0.033 | 0.034 | 4 | 0.209793456 |
| 4 | | -0.050 | 0.045 | 4 | -0.039 | 0.039 | 4 | -0.025 | 0.016 | 4 | 0.210025528 |
| 3 | | -0.049 | 0.017 | 4 | 0.005 | 0.042 | 4 | 0.007 | 0.022 | 4 | 0.2102576 |
| 4 | | -0.042 | 0.017 | 4 | -0.071 | 0.031 | 4 | 0.003 | 0.018 | 4 | 0.210489673 |
| 2 | | -0.078 | 0.027 | 2 | -0.050 | 0.000 | 2 | -0.024 | 0.026 | 2 | 0.210721745 |
| 4 | | -0.028 | 0.018 | 4 | -0.059 | 0.051 | 4 | -0.073 | 0.023 | 4 | 0.210953818 |
| 4 | | -0.037 | 0.034 | 4 | -0.002 | 0.035 | 4 | -0.100 | 0.021 | 4 | 0.21118589 |
| 4 | | -0.034 | 0.024 | 4 | -0.053 | 0.030 | 4 | -0.061 | 0.045 | 4 | 0.211417962 |
| 4 | | -0.013 | 0.039 | 4 | -0.059 | 0.056 | 4 | -0.056 | 0.038 | 4 | 0.211650035 |
| 2 | | -0.037 | 0.023 | 2 | -0.070 | 0.035 | 2 | -0.050 | 0.009 | 2 | 0.211882107 |
| 4 | | -0.010 | 0.032 | 4 | -0.042 | 0.016 | 4 | -0.101 | 0.069 | 4 | 0.21211418 |
| 4 | | -0.001 | 0.030 | 4 | -0.052 | 0.055 | 4 | -0.062 | 0.066 | 4 | 0.212346252 |
| 4 | | -0.016 | 0.029 | 4 | -0.046 | 0.037 | 4 | -0.048 | 0.015 | 4 | 0.212578324 |
| 4 | | -0.041 | 0.056 | 4 | -0.054 | 0.047 | 4 | -0.002 | 0.026 | 4 | 0.212810397 |
| 3 | | -0.007 | 0.026 | 4 | -0.044 | 0.029 | 4 | -0.149 | 0.166 | 4 | 0.213042469 |
| 4 | | 0.009 | 0.047 | 4 | -0.073 | 0.015 | 4 | -0.035 | 0.033 | 4 | 0.213274542 |
| 4 | | -0.022 | 0.019 | 4 | -0.031 | 0.017 | 4 | -0.020 | 0.004 | 4 | 0.213506614 |
| 4 | | -0.011 | 0.011 | 4 | -0.038 | 0.048 | 4 | -0.039 | 0.022 | 4 | 0.213738686 |
| 4 | | -0.062 | 0.028 | 4 | -0.091 | 0.030 | 4 | 0.012 | 0.012 | 4 | 0.213970759 |
| 4 | | -0.070 | 0.016 | 4 | -0.101 | 0.041 | 4 | -0.009 | 0.063 | 4 | 0.214202831 |
| 2 | | -0.043 | 0.017 | 2 | -0.061 | 0.032 | 2 | -0.018 | 0.026 | 2 | 0.214434904 |
| 4 | | 0.057 | 0.023 | 4 | 0.027 | 0.052 | 4 | -0.048 | 0.027 | 4 | 0.214666976 |
| 3 | | 0.026 | 0.028 | 3 | -0.028 | 0.052 | 3 | -0.081 | 0.023 | 3 | 0.214899049 |
| 4 | | -0.037 | 0.028 | 4 | -0.039 | 0.038 | 4 | -0.062 | 0.022 | 4 | 0.215131121 |
| 4 | | -0.051 | 0.025 | 4 | 0.010 | 0.044 | 4 | -0.058 | 0.076 | 4 | 0.215363193 |
| 4 | | -0.028 | 0.032 | 4 | -0.065 | 0.025 | 4 | -0.046 | 0.028 | 4 | 0.215595266 |
| 4 | | -0.041 | 0.017 | 4 | -0.038 | 0.061 | 4 | -0.059 | 0.042 | 4 | 0.215827338 |
| 3 | | -0.024 | 0.050 | 4 | -0.002 | 0.043 | 4 | -0.102 | 0.075 | 4 | 0.216059411 |
| 2 | | -0.022 | 0.028 | 2 | -0.097 | 0.024 | 2 | -0.052 | 0.004 | 2 | 0.216291483 |
| 4 | | -0.022 | 0.043 | 4 | -0.045 | 0.028 | 4 | -0.080 | 0.009 | 4 | 0.216523555 |
| 4 | | -0.032 | 0.030 | 4 | -0.021 | 0.046 | 4 | -0.002 | 0.015 | 4 | 0.216755628 |
| 3 | 1 | -0.194 | 0.021 | 2 | 0.060 | 0.007 | 2 | 0.120 | 0.002 | 2 | 0.2169877 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 4 | -0.009 | 0.010 | 4 | -0.031 | 0.050 | 4 | -0.029 | 0.044 | 4 | 0.217219773 |
| 2 | -0.056 | 0.054 | 3 | -0.051 | 0.013 | 3 | -0.046 | 0.077 | 3 | 0.217451845 |
| 4 | -0.027 | 0.058 | 4 | -0.020 | 0.039 | 4 | -0.045 | 0.041 | 4 | 0.217683917 |
| 2 | -0.010 | 0.002 | 2 | -0.023 | 0.027 | 2 | -0.045 | 0.004 | 2 | 0.21791599 |
| 4 | -0.055 | 0.044 | 4 | -0.026 | 0.063 | 4 | -0.075 | 0.041 | 4 | 0.218148062 |
| 4 | -0.065 | 0.028 | 4 | -0.103 | 0.073 | 4 | 0.001 | 0.031 | 4 | 0.218380135 |
| 4 | -0.020 | 0.014 | 4 | -0.064 | 0.008 | 4 | -0.033 | 0.023 | 4 | 0.218612207 |
| 3 | -0.049 | 0.028 | 4 | -0.022 | 0.026 | 4 | -0.084 | 0.042 | 4 | 0.218844279 |
| 4 | -0.013 | 0.047 | 4 | -0.061 | 0.058 | 4 | -0.064 | 0.042 | 4 | 0.219076352 |
| 4 | -0.036 | 0.026 | 4 | -0.033 | 0.044 | 4 | -0.037 | 0.021 | 4 | 0.219308424 |
| 4 | -0.029 | 0.022 | 4 | -0.101 | 0.039 | 4 | -0.054 | 0.022 | 4 | 0.219540497 |
| 4 | -0.007 | 0.020 | 4 | -0.026 | 0.051 | 4 | -0.020 | 0.041 | 4 | 0.219772569 |
| 3 | -0.018 | 0.023 | 4 | -0.049 | 0.046 | 4 | -0.070 | 0.117 | 4 | 0.220004641 |
| 4 | -0.010 | 0.068 | 4 | -0.114 | 0.063 | 4 | -0.039 | 0.045 | 4 | 0.220236714 |
| 4 | -0.029 | 0.027 | 4 | -0.029 | 0.050 | 4 | -0.028 | 0.021 | 4 | 0.220468786 |
| 4 | -0.019 | 0.019 | 3 | -0.042 | 0.036 | 3 | -0.037 | 0.050 | 3 | 0.220700859 |
| 4 | -0.031 | 0.021 | 4 | -0.038 | 0.038 | 4 | -0.070 | 0.019 | 4 | 0.220932931 |
| 4 | 0.032 | 0.018 | 4 | -0.039 | 0.044 | 4 | -0.011 | 0.041 | 4 | 0.221165003 |
| 4 | 0.024 | 0.020 | 4 | -0.055 | 0.026 | 4 | -0.108 | 0.070 | 4 | 0.221397076 |
| 4 | -0.032 | 0.032 | 4 | -0.045 | 0.023 | 4 | -0.024 | 0.022 | 4 | 0.221629148 |
| 4 | -0.022 | 0.029 | 4 | -0.064 | 0.064 | 4 | -0.050 | 0.040 | 4 | 0.221861221 |
| 4 | 0.038 | 0.031 | 4 | -0.058 | 0.042 | 4 | -0.085 | 0.130 | 4 | 0.222093293 |
| 3 | -0.002 | 0.006 | 4 | -0.097 | 0.047 | 4 | -0.019 | 0.037 | 4 | 0.222325366 |
| 4 | -0.054 | 0.021 | 4 | -0.039 | 0.027 | 4 | -0.011 | 0.026 | 4 | 0.222557438 |
| 4 | -0.004 | 0.010 | 4 | -0.051 | 0.040 | 4 | -0.029 | 0.030 | 4 | 0.22278951 |
| 4 | -0.088 | 0.079 | 4 | -0.106 | 0.060 | 4 | 0.000 | 0.072 | 4 | 0.223021583 |
| 4 | -0.045 | 0.034 | 4 | -0.083 | 0.046 | 4 | -0.025 | 0.029 | 4 | 0.223253655 |
| 3 | -0.058 | 0.051 | 3 | -0.044 | 0.031 | 3 | -0.073 | 0.009 | 3 | 0.223485728 |
| 2 | -0.011 | 0.014 | 2 | -0.105 | 0.033 | 2 | -0.050 | 0.009 | 2 | 0.2237178 |
| 4 | -0.002 | 0.026 | 4 | 0.020 | 0.043 | 4 | -0.049 | 0.011 | 4 | 0.223949872 |
| 4 | -0.019 | 0.011 | 4 | -0.030 | 0.023 | 4 | -0.068 | 0.046 | 4 | 0.224181945 |
| 3 | 0.023 | 0.022 | 3 | 0.048 | 0.014 | 3 | -0.101 | 0.254 | 3 | 0.224414017 |
| 4 | -0.003 | 0.070 | 4 | -0.057 | 0.034 | 4 | -0.021 | 0.037 | 4 | 0.22464609 |
| 3 | -0.015 | 0.033 | 4 | -0.051 | 0.049 | 4 | -0.051 | 0.042 | 4 | 0.224878162 |
| 4 | -0.026 | 0.021 | 4 | -0.066 | 0.051 | 4 | -0.031 | 0.031 | 4 | 0.225110234 |
| 4 | -0.013 | 0.055 | 4 | -0.052 | 0.035 | 4 | -0.071 | 0.036 | 4 | 0.225342307 |
| 4 | -0.012 | 0.038 | 4 | -0.022 | 0.050 | 4 | -0.019 | 0.045 | 4 | 0.225574379 |
| 4 | -0.014 | 0.027 | 4 | -0.041 | 0.041 | 4 | -0.052 | 0.015 | 4 | 0.225806452 |
| 4 | -0.045 | 0.048 | 4 | -0.023 | 0.028 | 4 | -0.012 | 0.032 | 4 | 0.226038524 |
| 4 | -0.024 | 0.023 | 4 | -0.027 | 0.057 | 4 | -0.034 | 0.023 | 4 | 0.226270596 |
| 3 | -0.061 | 0.056 | 4 | -0.093 | 0.052 | 4 | 0.019 | 0.065 | 4 | 0.226502669 |
| 3 | -0.004 | 0.044 | 3 | 0.004 | 0.038 | 3 | -0.175 | 0.183 | 3 | 0.226734741 |
| 4 | -0.042 | 0.034 | 4 | -0.045 | 0.045 | 4 | -0.042 | 0.042 | 4 | 0.226966814 |
| 4 | -0.013 | 0.032 | 4 | -0.061 | 0.041 | 4 | -0.022 | 0.033 | 4 | 0.227198886 |
| 4 | -0.025 | 0.025 | 4 | -0.049 | 0.030 | 4 | 0.003 | 0.011 | 4 | 0.227430958 |
| 4 | -0.031 | 0.019 | 4 | -0.039 | 0.048 | 4 | -0.055 | 0.028 | 4 | 0.227663031 |
| 4 | -0.116 | 0.025 | 4 | 0.004 | 0.033 | 4 | 0.063 | 0.029 | 4 | 0.227895103 |
| 4 | -0.130 | 0.053 | 4 | -0.049 | 0.069 | 4 | 0.015 | 0.075 | 4 | 0.228127176 |
| 4 | -0.021 | 0.030 | 4 | -0.054 | 0.025 | 4 | -0.054 | 0.027 | 4 | 0.228359248 |
| 4 | -0.027 | 0.012 | 4 | -0.032 | 0.041 | 4 | -0.026 | 0.009 | 4 | 0.22859132 |
| 4 | -0.024 | 0.031 | 4 | 0.017 | 0.034 | 4 | -0.146 | 0.150 | 4 | 0.228823393 |
| 4 | -0.076 | 0.057 | 4 | -0.001 | 0.038 | 4 | -0.080 | 0.016 | 4 | 0.229055465 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 4 | -0.039 | 0.015 | 4 | -0.073 | 0.039 | 4 | -0.034 | 0.040 | 4 | 0.229287538 |
| 4 | -0.044 | 0.011 | 4 | -0.047 | 0.068 | 4 | -0.011 | 0.033 | 4 | 0.22951961 |
| 3 | -0.078 | 0.064 | 4 | -0.096 | 0.077 | 4 | -0.021 | 0.023 | 4 | 0.229751683 |
| 4 | 0.000 | 0.033 | 4 | -0.079 | 0.042 | 4 | -0.053 | 0.045 | 4 | 0.229983755 |
| 4 | -0.048 | 0.012 | 4 | -0.060 | 0.020 | 4 | -0.015 | 0.042 | 4 | 0.230215827 |
| 3 | -0.018 | 0.045 | 3 | -0.078 | 0.040 | 3 | -0.030 | 0.023 | 3 | 0.2304479 |
| 4 | -0.012 | 0.016 | 4 | -0.029 | 0.057 | 4 | -0.008 | 0.021 | 4 | 0.230679972 |
| 4 | -0.015 | 0.021 | 4 | -0.067 | 0.043 | 4 | -0.051 | 0.020 | 4 | 0.230912045 |
| 4 | -0.026 | 0.017 | 4 | -0.062 | 0.038 | 4 | -0.038 | 0.029 | 4 | 0.231144117 |
| 4 | -0.033 | 0.015 | 4 | -0.088 | 0.057 | 4 | -0.060 | 0.039 | 4 | 0.231376189 |
| 4 | -0.009 | 0.042 | 4 | -0.042 | 0.024 | 4 | -0.122 | 0.189 | 4 | 0.231608262 |
| 4 | -0.018 | 0.040 | 4 | -0.004 | 0.031 | 4 | -0.018 | 0.016 | 4 | 0.231840334 |
| 4 | -0.033 | 0.034 | 4 | -0.032 | 0.057 | 4 | -0.027 | 0.031 | 4 | 0.232072407 |
| 4 | 0.000 | 0.044 | 4 | -0.072 | 0.057 | 4 | -0.031 | 0.051 | 4 | 0.232304479 |
| 2 | -0.038 | 0.027 | 2 | 0.032 | 0.042 | 2 | -0.028 | 0.044 | 2 | 0.232536551 |
| 3 | -0.013 | 0.027 | 4 | -0.064 | 0.055 | 4 | -0.047 | 0.042 | 4 | 0.232768624 |
| 4 | 0.006 | 0.018 | 4 | -0.057 | 0.021 | 4 | -0.060 | 0.010 | 4 | 0.233000696 |
| 2 | -0.048 | 0.026 | 2 | -0.060 | 0.033 | 2 | -0.047 | 0.031 | 2 | 0.233232769 |
| 4 | -0.007 | 0.011 | 4 | -0.060 | 0.032 | 4 | -0.056 | 0.029 | 4 | 0.233464841 |
| 4 | -0.015 | 0.029 | 4 | -0.033 | 0.052 | 4 | -0.028 | 0.040 | 4 | 0.233696913 |
| 4 | -0.038 | 0.036 | 4 | -0.043 | 0.055 | 4 | -0.044 | 0.055 | 4 | 0.233928986 |
| 3 | -0.006 | 0.017 | 4 | -0.046 | 0.031 | 4 | -0.034 | 0.024 | 4 | 0.234161058 |
| 4 | -0.016 | 0.043 | 4 | 0.006 | 0.057 | 4 | -0.024 | 0.037 | 4 | 0.234393131 |
| 4 | 0.012 | 0.028 | 4 | -0.043 | 0.021 | 4 | -0.056 | 0.024 | 4 | 0.234625203 |
| 4 | -0.053 | 0.038 | 4 | -0.068 | 0.049 | 4 | -0.071 | 0.029 | 4 | 0.234857275 |
| 4 | 0.001 | 0.036 | 4 | -0.040 | 0.059 | 4 | -0.043 | 0.031 | 4 | 0.235089348 |
| | -0.072 | 0.054 | 3 | -0.080 | 0.104 | 3 | 0.039 | 0.050 | 3 | 0.23532142 |
| 4 | 0.035 | 0.050 | 4 | -0.033 | 0.046 | 4 | -0.169 | 0.183 | 4 | 0.235553493 |
| 4 | -0.040 | 0.040 | 4 | -0.075 | 0.031 | 4 | -0.049 | 0.043 | 4 | 0.235785565 |
| 4 | -0.036 | 0.022 | 4 | -0.030 | 0.034 | 4 | -0.001 | 0.063 | 4 | 0.236017638 |
| 4 | -0.026 | 0.014 | 4 | -0.061 | 0.047 | 4 | -0.038 | 0.044 | 4 | 0.23624971 |
| 4 | -0.007 | 0.023 | 4 | -0.039 | 0.034 | 4 | -0.078 | 0.041 | 4 | 0.236481782 |
| 4 | -0.020 | 0.016 | 4 | -0.023 | 0.047 | 4 | -0.066 | 0.026 | 4 | 0.236713855 |
| 4 | 0.001 | 0.006 | 4 | -0.025 | 0.040 | 4 | -0.041 | 0.016 | 4 | 0.236945927 |
| 4 | 0.018 | 0.047 | 4 | -0.046 | 0.032 | 4 | -0.042 | 0.028 | 4 | 0.237178 |
| 4 | -0.017 | 0.021 | 4 | -0.023 | 0.047 | 4 | -0.037 | 0.025 | 4 | 0.237410072 |
| 4 | -0.025 | 0.030 | 4 | -0.068 | 0.032 | 4 | -0.041 | 0.034 | 4 | 0.237642144 |
| 3 | 0.026 | 0.029 | 3 | 0.006 | 0.025 | 3 | -0.170 | 0.187 | 3 | 0.237874217 |
| 4 | -0.021 | 0.022 | 4 | -0.057 | 0.019 | 4 | -0.039 | 0.020 | 4 | 0.238106289 |
| 4 | -0.016 | 0.021 | 4 | -0.030 | 0.040 | 4 | 0.000 | 0.035 | 4 | 0.238338362 |
| 4 | -0.009 | 0.013 | 4 | -0.028 | 0.027 | 4 | -0.046 | 0.015 | 4 | 0.238570434 |
| 4 | -0.026 | 0.011 | 4 | -0.078 | 0.046 | 4 | -0.032 | 0.013 | 4 | 0.238802506 |
| 3 | 0.006 | 0.020 | 3 | -0.080 | 0.034 | 3 | -0.063 | 0.021 | 3 | 0.239034579 |
| 2 | 0.005 | 0.005 | 2 | -0.031 | 0.023 | 2 | -0.033 | 0.001 | 2 | 0.239266651 |
| 4 | -0.024 | 0.052 | 4 | -0.019 | 0.038 | 4 | -0.037 | 0.032 | 4 | 0.239498724 |
| 4 | 0.002 | 0.025 | 4 | -0.093 | 0.083 | 4 | -0.034 | 0.039 | 4 | 0.239730796 |
| 4 | -0.024 | 0.017 | 4 | -0.046 | 0.028 | 4 | -0.044 | 0.029 | 4 | 0.239962868 |
| 4 | -0.038 | 0.026 | 4 | -0.039 | 0.051 | 4 | -0.068 | 0.026 | 4 | 0.240194941 |
| 4 | -0.009 | 0.013 | 4 | -0.095 | 0.061 | 4 | -0.023 | 0.024 | 4 | 0.240427013 |
| 2 | 0.015 | 0.001 | 2 | -0.003 | 0.022 | 2 | -0.085 | 0.030 | 2 | 0.240659086 |
| 4 | -0.004 | 0.021 | 4 | -0.040 | 0.055 | 4 | -0.033 | 0.057 | 4 | 0.240891158 |
| 4 | -0.031 | 0.031 | 4 | -0.069 | 0.051 | 4 | -0.045 | 0.046 | 4 | 0.24112323 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 4 | -0.056 | 0.026 | 4 | -0.116 | 0.033 | 4 | -0.068 | 0.032 | 4 | 0.241355303 |
| 2 | -0.022 | 0.024 | 3 | -0.027 | 0.038 | 3 | 0.018 | 0.041 | 3 | 0.241587375 |
| 4 | -0.116 | 0.018 | 4 | -0.007 | 0.024 | 4 | -0.006 | 0.028 | 4 | 0.241819448 |
| 4 | -0.028 | 0.012 | 4 | -0.058 | 0.048 | 4 | -0.033 | 0.044 | 4 | 0.24205152 |
| 4 | -0.007 | 0.020 | 4 | -0.013 | 0.055 | 4 | -0.012 | 0.027 | 4 | 0.242283592 |
| 2 | -0.032 | 0.020 | 3 | -0.004 | 0.018 | 3 | -0.045 | 0.025 | 3 | 0.242515665 |
| 4 | -0.020 | 0.026 | 4 | -0.101 | 0.060 | 4 | -0.071 | 0.040 | 4 | 0.242747737 |
| 4 | -0.034 | 0.036 | 4 | -0.035 | 0.023 | 4 | -0.025 | 0.008 | 4 | 0.24297981 |
| | -0.056 | 0.012 | 3 | 0.012 | 0.018 | 3 | -0.066 | 0.073 | 3 | 0.243211882 |
| 2 | -0.033 | 0.012 | 2 | -0.024 | 0.030 | 2 | -0.090 | 0.008 | 2 | 0.243443955 |
| 4 | -0.039 | 0.032 | 4 | -0.109 | 0.037 | 4 | -0.024 | 0.015 | 4 | 0.243676027 |
| 4 | -0.057 | 0.047 | 4 | -0.082 | 0.020 | 4 | -0.051 | 0.024 | 4 | 0.243908099 |
| 4 | -0.052 | 0.025 | 4 | -0.041 | 0.047 | 4 | -0.058 | 0.029 | 4 | 0.244140172 |
| 4 | -0.037 | 0.039 | 4 | -0.040 | 0.029 | 4 | -0.058 | 0.040 | 4 | 0.244372244 |
| 4 | -0.014 | 0.021 | 4 | -0.035 | 0.051 | 4 | 0.002 | 0.030 | 4 | 0.244604317 |
| 4 | -0.051 | 0.008 | 4 | -0.018 | 0.068 | 4 | -0.045 | 0.066 | 4 | 0.244836389 |
| 4 | -0.022 | 0.027 | 4 | -0.083 | 0.059 | 4 | -0.008 | 0.018 | 4 | 0.245068461 |
| 4 | -0.022 | 0.022 | 4 | 0.003 | 0.043 | 4 | -0.111 | 0.126 | 4 | 0.245300534 |
| 4 | 0.019 | 0.014 | 4 | -0.073 | 0.031 | 4 | -0.096 | 0.010 | 4 | 0.245532606 |
| 4 | -0.008 | 0.041 | 4 | -0.038 | 0.039 | 4 | -0.089 | 0.124 | 4 | 0.245764679 |
| 3 | -0.024 | 0.087 | 3 | -0.049 | 0.080 | 3 | -0.023 | 0.041 | 3 | 0.245996751 |
| 2 | -0.067 | 0.005 | 3 | -0.073 | 0.032 | 3 | 0.028 | 0.025 | 3 | 0.246228823 |
| 3 | -0.072 | 0.009 | 4 | -0.068 | 0.022 | 4 | -0.094 | 0.028 | 4 | 0.246460896 |
| 4 | -0.070 | 0.019 | 4 | -0.059 | 0.037 | 4 | -0.047 | 0.015 | 4 | 0.246692968 |
| 3 | -0.069 | 0.024 | 4 | -0.086 | 0.062 | 4 | -0.021 | 0.046 | 4 | 0.246925041 |
| 4 | -0.038 | 0.021 | 4 | -0.029 | 0.066 | 4 | -0.016 | 0.015 | 4 | 0.247157113 |
| 4 | -0.027 | 0.007 | 4 | -0.035 | 0.037 | 4 | -0.039 | 0.016 | 4 | 0.247389185 |
| 4 | -0.029 | 0.063 | 4 | -0.061 | 0.051 | 4 | -0.023 | 0.033 | 4 | 0.247621258 |
| 2 | -0.051 | 0.009 | 2 | -0.102 | 0.021 | 2 | -0.022 | 0.012 | 2 | 0.24785333 |
| 4 | -0.053 | 0.040 | 4 | -0.025 | 0.038 | 4 | -0.034 | 0.012 | 4 | 0.248085403 |
| 4 | 0.007 | 0.031 | 4 | -0.037 | 0.042 | 4 | -0.039 | 0.008 | 4 | 0.248317475 |
| 4 | -0.029 | 0.030 | 4 | -0.047 | 0.052 | 4 | -0.035 | 0.007 | 4 | 0.248549547 |
| 4 | -0.022 | 0.027 | 4 | -0.037 | 0.039 | 4 | -0.001 | 0.023 | 4 | 0.24878162 |
| 4 | -0.020 | 0.010 | 4 | -0.068 | 0.065 | 4 | -0.036 | 0.050 | 4 | 0.249013692 |
| 4 | -0.031 | 0.035 | 4 | -0.074 | 0.052 | 4 | -0.076 | 0.010 | 4 | 0.249245765 |
| 4 | -0.045 | 0.045 | 4 | -0.042 | 0.044 | 4 | -0.009 | 0.028 | 4 | 0.249477837 |
| 4 | -0.011 | 0.008 | 4 | 0.004 | 0.059 | 4 | -0.047 | 0.033 | 4 | 0.249709909 |
| 4 | -0.048 | 0.016 | 4 | -0.020 | 0.035 | 4 | -0.062 | 0.036 | 4 | 0.249941982 |
| 4 | -0.020 | 0.033 | 4 | -0.033 | 0.040 | 4 | -0.020 | 0.030 | 4 | 0.250174054 |
| 4 | -0.030 | 0.023 | 4 | -0.045 | 0.058 | 4 | -0.033 | 0.022 | 4 | 0.250406127 |
| 4 | -0.013 | 0.005 | 4 | -0.033 | 0.035 | 4 | -0.031 | 0.031 | 4 | 0.250638199 |
| 3 | -0.047 | 0.027 | 4 | -0.079 | 0.022 | 4 | -0.023 | 0.074 | 4 | 0.250870272 |
| 4 | 0.018 | 0.016 | 4 | -0.031 | 0.027 | 4 | -0.065 | 0.023 | 4 | 0.251102344 |
| 4 | -0.006 | 0.028 | 4 | -0.047 | 0.021 | 4 | -0.016 | 0.035 | 4 | 0.251334416 |
| 4 | -0.024 | 0.029 | 4 | -0.048 | 0.049 | 4 | -0.054 | 0.029 | 4 | 0.251566489 |
| 4 | -0.066 | 0.056 | 4 | -0.059 | 0.063 | 4 | -0.047 | 0.070 | 4 | 0.251798561 |
| 4 | -0.047 | 0.048 | 4 | -0.065 | 0.017 | 4 | -0.031 | 0.015 | 4 | 0.252030634 |
| 4 | -0.001 | 0.028 | 4 | 0.023 | 0.028 | 4 | -0.124 | 0.112 | 4 | 0.252262706 |
| 4 | -0.007 | 0.040 | 4 | -0.079 | 0.065 | 4 | -0.045 | 0.037 | 4 | 0.252494778 |
| 2 | -0.043 | 0.026 | 2 | -0.151 | 0.056 | 2 | 0.067 | 0.022 | 2 | 0.252726851 |
| 3 | -0.026 | 0.050 | 4 | -0.054 | 0.030 | 4 | -0.020 | 0.038 | 4 | 0.252958923 |
| 4 | 0.001 | 0.031 | 4 | -0.064 | 0.055 | 4 | -0.042 | 0.041 | 4 | 0.253190996 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 4 | -0.019 | 0.030 | 4 | -0.063 | 0.050 | 4 | -0.040 | 0.022 | 4 | 0.253423068 |
| 2 | -0.008 | 0.016 | 2 | -0.089 | 0.036 | 2 | -0.048 | 0.023 | 2 | 0.25365514 |
| 4 | -0.025 | 0.021 | 4 | -0.075 | 0.059 | 4 | -0.004 | 0.039 | 4 | 0.253887213 |
| 4 | -0.024 | 0.019 | 4 | -0.051 | 0.043 | 4 | -0.010 | 0.031 | 4 | 0.254119285 |
| 4 | -0.012 | 0.009 | 4 | -0.001 | 0.023 | 4 | -0.128 | 0.123 | 4 | 0.254351358 |
| 2 | 0.005 | 0.048 | 4 | 0.010 | 0.027 | 4 | -0.057 | 0.017 | 4 | 0.25458343 |
| 4 | -0.045 | 0.011 | 4 | -0.068 | 0.045 | 4 | 0.070 | 0.039 | 4 | 0.254815502 |
| 2 | -0.020 | 0.034 | 2 | -0.017 | 0.043 | 2 | -0.075 | 0.002 | 2 | 0.255047575 |
| 4 | 0.004 | 0.017 | 4 | -0.076 | 0.046 | 4 | -0.027 | 0.045 | 4 | 0.255279647 |
| 4 | -0.033 | 0.012 | 4 | -0.001 | 0.050 | 4 | -0.058 | 0.040 | 4 | 0.25551172 |
| 4 | -0.035 | 0.017 | 4 | -0.052 | 0.059 | 4 | -0.038 | 0.033 | 4 | 0.255743792 |
| 3 | -0.037 | 0.017 | 3 | -0.061 | 0.033 | 3 | -0.033 | 0.019 | 3 | 0.255975864 |
| 4 | -0.030 | 0.021 | 4 | -0.089 | 0.064 | 4 | -0.010 | 0.020 | 4 | 0.256207937 |
| 4 | -0.017 | 0.046 | 4 | -0.046 | 0.063 | 4 | -0.026 | 0.041 | 4 | 0.256440009 |
| 4 | -0.024 | 0.027 | 4 | -0.027 | 0.047 | 4 | -0.038 | 0.041 | 4 | 0.256672082 |
| 4 | 0.005 | 0.045 | 4 | -0.038 | 0.035 | 4 | -0.025 | 0.018 | 4 | 0.256904154 |
| 4 | -0.004 | 0.015 | 4 | -0.050 | 0.039 | 4 | -0.041 | 0.026 | 4 | 0.257136227 |
| 4 | 0.005 | 0.070 | 4 | -0.096 | 0.053 | 4 | -0.040 | 0.014 | 4 | 0.257368299 |
| 2 | -0.046 | 0.012 | 3 | -0.025 | 0.059 | 3 | -0.050 | 0.038 | 3 | 0.257600371 |
| 4 | -0.030 | 0.007 | 4 | -0.111 | 0.063 | 4 | -0.037 | 0.038 | 4 | 0.257832444 |
| 3 | -0.007 | 0.050 | 3 | -0.087 | 0.020 | 3 | -0.048 | 0.031 | 3 | 0.258064516 |
| 2 | -0.033 | 0.019 | 2 | -0.052 | 0.006 | 2 | -0.039 | 0.004 | 2 | 0.258296589 |
| 4 | -0.036 | 0.017 | 4 | -0.054 | 0.034 | 4 | -0.030 | 0.036 | 4 | 0.258528661 |
| 4 | -0.029 | 0.038 | 4 | -0.062 | 0.044 | 4 | -0.104 | 0.055 | 4 | 0.258760733 |
| 4 | 0.011 | 0.028 | 4 | -0.005 | 0.006 | 4 | -0.070 | 0.025 | 4 | 0.258992806 |
| 2 | -0.060 | 0.012 | 2 | -0.145 | 0.000 | 2 | 0.042 | 0.021 | 2 | 0.259224878 |
| 4 | -0.018 | 0.017 | 4 | -0.057 | 0.035 | 4 | -0.048 | 0.012 | 4 | 0.259456951 |
| 4 | -0.061 | 0.072 | 4 | -0.032 | 0.092 | 4 | -0.013 | 0.044 | 4 | 0.259689023 |
| 4 | -0.036 | 0.024 | 4 | -0.017 | 0.037 | 4 | -0.046 | 0.020 | 4 | 0.259921095 |
| 4 | -0.002 | 0.034 | 4 | -0.018 | 0.041 | 4 | -0.056 | 0.028 | 4 | 0.260153168 |
| 4 | -0.028 | 0.021 | 4 | -0.053 | 0.019 | 4 | -0.011 | 0.026 | 4 | 0.26038524 |
| 2 | -0.029 | 0.027 | 3 | -0.061 | 0.018 | 3 | -0.038 | 0.261 | 3 | 0.260617313 |
| 4 | -0.028 | 0.025 | 4 | -0.068 | 0.064 | 4 | -0.051 | 0.041 | 4 | 0.260849385 |
| 4 | -0.039 | 0.038 | 4 | -0.026 | 0.033 | 4 | -0.005 | 0.055 | 4 | 0.261081457 |
| 4 | -0.003 | 0.020 | 4 | -0.021 | 0.047 | 4 | -0.041 | 0.033 | 4 | 0.26131353 |
| 4 | -0.027 | 0.051 | 4 | -0.064 | 0.064 | 4 | -0.028 | 0.022 | 4 | 0.261545602 |
| 4 | -0.045 | 0.024 | 4 | -0.040 | 0.044 | 4 | -0.056 | 0.011 | 4 | 0.261777675 |
| 4 | -0.030 | 0.021 | 4 | -0.047 | 0.060 | 4 | -0.034 | 0.029 | 4 | 0.262009747 |
| | -0.045 | 0.005 | 3 | -0.019 | 0.034 | 3 | -0.039 | 0.024 | 3 | 0.262241819 |
| 3 | -0.024 | 0.023 | 3 | -0.033 | 0.043 | 3 | -0.009 | 0.031 | 3 | 0.262473892 |
| 4 | -0.020 | 0.026 | 4 | -0.064 | 0.031 | 4 | -0.019 | 0.023 | 4 | 0.262705964 |
| 4 | -0.035 | 0.018 | 4 | -0.050 | 0.020 | 4 | -0.021 | 0.012 | 4 | 0.262938037 |
| 4 | 0.066 | 0.045 | 4 | -0.071 | 0.041 | 4 | -0.022 | 0.026 | 4 | 0.263170109 |
| 4 | -0.034 | 0.025 | 4 | -0.036 | 0.028 | 4 | -0.045 | 0.026 | 4 | 0.263402181 |
| 4 | -0.027 | 0.072 | 4 | -0.052 | 0.053 | 4 | -0.073 | 0.032 | 4 | 0.263634254 |
| 4 | -0.061 | 0.022 | 4 | -0.046 | 0.027 | 4 | -0.033 | 0.042 | 4 | 0.263866326 |
| 4 | -0.054 | 0.021 | 4 | -0.050 | 0.054 | 4 | -0.016 | 0.023 | 4 | 0.264098399 |
| 4 | 0.016 | 0.022 | 4 | -0.019 | 0.062 | 4 | -0.081 | 0.050 | 4 | 0.264330471 |
| 4 | -0.028 | 0.035 | 4 | -0.056 | 0.019 | 4 | -0.012 | 0.009 | 4 | 0.264562544 |
| 4 | -0.002 | 0.029 | 4 | -0.045 | 0.034 | 4 | -0.061 | 0.022 | 4 | 0.264794616 |
| 4 | -0.029 | 0.019 | 4 | -0.026 | 0.049 | 4 | -0.022 | 0.019 | 4 | 0.265026688 |
| 4 | -0.003 | 0.012 | 4 | -0.055 | 0.045 | 4 | -0.001 | 0.028 | 4 | 0.265258761 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 4 | -0.061 | 0.057 | 4 | -0.098 | 0.047 | 4 | -0.015 | 0.034 | 4 | 0.265490833 |
| 2 | -0.041 | 0.017 | 2 | -0.042 | 0.030 | 2 | -0.049 | 0.011 | 2 | 0.265722906 |
| 4 | 0.006 | 0.028 | 4 | -0.034 | 0.037 | 4 | -0.029 | 0.011 | 4 | 0.265954978 |
| 4 | 0.003 | 0.023 | 4 | -0.074 | 0.047 | 4 | -0.035 | 0.062 | 4 | 0.26618705 |
| 4 | -0.010 | 0.054 | 4 | -0.071 | 0.050 | 4 | -0.081 | 0.033 | 4 | 0.266419123 |
| 4 | -0.036 | 0.028 | 4 | -0.100 | 0.049 | 4 | 0.011 | 0.020 | 4 | 0.266651195 |
| 4 | -0.040 | 0.033 | 4 | -0.049 | 0.042 | 4 | -0.055 | 0.083 | 4 | 0.266883268 |
| 4 | -0.062 | 0.035 | 4 | -0.097 | 0.045 | 4 | 0.021 | 0.022 | 4 | 0.26711534 |
| 4 | -0.014 | 0.024 | 4 | -0.064 | 0.056 | 4 | -0.027 | 0.040 | 4 | 0.267347412 |
| 4 | -0.048 | 0.025 | 4 | -0.040 | 0.021 | 4 | -0.056 | 0.003 | 4 | 0.267579485 |
| 4 | -0.019 | 0.035 | 4 | -0.080 | 0.048 | 4 | -0.036 | 0.027 | 4 | 0.267811557 |
| 4 | -0.031 | 0.047 | 4 | -0.039 | 0.054 | 4 | -0.023 | 0.050 | 4 | 0.26804363 |
| 4 | -0.008 | 0.036 | 4 | -0.069 | 0.040 | 4 | -0.040 | 0.031 | 4 | 0.268275702 |
| 4 | 0.035 | 0.028 | 4 | 0.074 | 0.046 | 4 | -0.162 | 0.265 | 4 | 0.268507774 |
| 4 | 0.006 | 0.020 | 4 | 0.004 | 0.047 | 4 | -0.064 | 0.051 | 4 | 0.268739847 |
| 4 | -0.008 | 0.019 | 4 | -0.037 | 0.047 | 4 | -0.060 | 0.055 | 4 | 0.268971919 |
| 3 | -0.073 | 0.036 | 4 | -0.059 | 0.041 | 4 | -0.003 | 0.052 | 4 | 0.269203992 |
| 4 | 0.010 | 0.022 | 4 | -0.017 | 0.018 | 4 | -0.066 | 0.013 | 4 | 0.269436064 |
| 4 | -0.007 | 0.047 | 4 | -0.081 | 0.050 | 4 | -0.069 | 0.058 | 4 | 0.269668136 |
| 2 | -0.003 | 0.020 | 2 | -0.089 | 0.021 | 2 | -0.058 | 0.006 | 2 | 0.269900209 |
| 4 | -0.030 | 0.028 | 4 | -0.047 | 0.025 | 4 | -0.034 | 0.021 | 4 | 0.270132281 |
| 4 | -0.021 | 0.018 | 4 | -0.046 | 0.043 | 4 | -0.027 | 0.017 | 4 | 0.270364354 |
| 4 | -0.027 | 0.017 | 4 | -0.030 | 0.036 | 4 | -0.013 | 0.028 | 4 | 0.270596426 |
| 3 | -0.114 | 0.027 | 3 | -0.076 | 0.021 | 3 | -0.073 | 0.061 | 3 | 0.270828498 |
| 4 | -0.020 | 0.023 | 4 | -0.068 | 0.049 | 4 | -0.008 | 0.017 | 4 | 0.271060571 |
| 2 | -0.157 | 0.028 | 2 | 0.044 | 0.034 | 2 | -0.028 | 0.038 | 2 | 0.271292643 |
| 4 | -0.027 | 0.036 | 4 | -0.045 | 0.035 | 4 | -0.037 | 0.031 | 4 | 0.271524716 |
| 4 | -0.043 | 0.023 | 4 | -0.033 | 0.032 | 4 | -0.022 | 0.012 | 4 | 0.271756788 |
| 4 | -0.011 | 0.034 | 4 | -0.074 | 0.060 | 4 | -0.048 | 0.047 | 4 | 0.271988861 |
| 4 | -0.014 | 0.008 | 4 | 0.014 | 0.016 | 4 | -0.082 | 0.051 | 4 | 0.272220933 |
| 4 | -0.019 | 0.018 | 4 | -0.049 | 0.051 | 4 | -0.046 | 0.040 | 4 | 0.272453005 |
| 4 | -0.012 | 0.047 | 4 | -0.035 | 0.031 | 4 | 0.018 | 0.027 | 4 | 0.272685078 |
| 4 | -0.026 | 0.023 | 4 | -0.061 | 0.033 | 4 | -0.029 | 0.010 | 4 | 0.27291715 |
| 4 | -0.032 | 0.014 | 4 | -0.011 | 0.011 | 4 | -0.072 | 0.028 | 4 | 0.273149223 |
| 4 | 0.022 | 0.012 | 4 | -0.039 | 0.061 | 4 | -0.043 | 0.027 | 4 | 0.273381295 |
| 4 | -0.059 | 0.025 | 4 | -0.016 | 0.031 | 4 | -0.053 | 0.024 | 4 | 0.273613367 |
| 4 | -0.018 | 0.024 | 4 | -0.084 | 0.046 | 4 | -0.071 | 0.048 | 4 | 0.27384544 |
| 3 | -0.075 | 0.062 | 4 | -0.070 | 0.052 | 4 | -0.014 | 0.032 | 4 | 0.274077512 |
| 4 | -0.032 | 0.055 | 4 | -0.016 | 0.028 | 4 | -0.040 | 0.048 | 4 | 0.274309585 |
| 4 | -0.007 | 0.020 | 4 | -0.005 | 0.048 | 4 | -0.082 | 0.141 | 4 | 0.274541657 |
| 4 | -0.029 | 0.052 | 4 | -0.009 | 0.036 | 4 | -0.080 | 0.025 | 4 | 0.274773729 |
| 4 | -0.016 | 0.020 | 4 | -0.062 | 0.057 | 4 | -0.041 | 0.043 | 4 | 0.275005802 |
| 4 | 0.007 | 0.047 | 4 | -0.016 | 0.021 | 4 | -0.042 | 0.064 | 4 | 0.275237874 |
| 4 | -0.011 | 0.022 | 4 | -0.038 | 0.049 | 4 | -0.037 | 0.031 | 4 | 0.275469947 |
| 4 | -0.016 | 0.026 | 4 | -0.033 | 0.043 | 4 | -0.024 | 0.017 | 4 | 0.275702019 |
| 4 | 0.018 | 0.041 | 4 | -0.016 | 0.046 | 4 | -0.077 | 0.032 | 4 | 0.275934091 |
| 4 | 0.004 | 0.024 | 4 | -0.028 | 0.056 | 4 | -0.003 | 0.022 | 4 | 0.276166164 |
| 4 | 0.025 | 0.066 | 4 | -0.064 | 0.089 | 4 | -0.036 | 0.079 | 4 | 0.276398236 |
| 4 | -0.040 | 0.041 | 4 | -0.037 | 0.025 | 4 | -0.057 | 0.042 | 4 | 0.276630309 |
| 3 | -0.026 | 0.042 | 4 | -0.014 | 0.063 | 4 | -0.003 | 0.019 | 4 | 0.276862381 |
| 4 | -0.019 | 0.041 | 4 | -0.035 | 0.052 | 4 | 0.018 | 0.019 | 4 | 0.277094453 |
| 4 | -0.030 | 0.038 | 4 | -0.021 | 0.055 | 4 | 0.015 | 0.043 | 4 | 0.277326526 |

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|---|---|---|---|---|---|---|---|---|---|---|
| 4 | -0.033 | 0.022 | 4 | 0.001 | 0.034 | 4 | -0.076 | 0.206 | 4 | 0.277558598 |
| 4 | -0.037 | 0.022 | 4 | -0.040 | 0.026 | 4 | -0.025 | 0.016 | 4 | 0.277790671 |
| 4 | -0.039 | 0.022 | 4 | -0.086 | 0.082 | 4 | -0.047 | 0.037 | 4 | 0.278022743 |
| 4 | -0.035 | 0.028 | 4 | -0.010 | 0.042 | 4 | -0.022 | 0.035 | 4 | 0.278254816 |
| 4 | 0.006 | 0.029 | 4 | -0.052 | 0.073 | 4 | -0.023 | 0.070 | 4 | 0.278486888 |
| 4 | 0.001 | 0.012 | 4 | -0.017 | 0.040 | 4 | -0.045 | 0.021 | 4 | 0.27871896 |
| 4 | -0.037 | 0.022 | 4 | -0.057 | 0.038 | 4 | -0.061 | 0.018 | 4 | 0.278951033 |
| 4 | -0.006 | 0.025 | 4 | -0.025 | 0.025 | 4 | -0.030 | 0.027 | 4 | 0.279183105 |
| 4 | 0.010 | 0.036 | 4 | -0.030 | 0.048 | 4 | -0.043 | 0.039 | 4 | 0.279415178 |
| 4 | -0.027 | 0.013 | 4 | -0.022 | 0.050 | 4 | 0.015 | 0.024 | 4 | 0.27964725 |
| 4 | -0.010 | 0.022 | 4 | -0.025 | 0.033 | 4 | -0.031 | 0.023 | 4 | 0.279879322 |
| 4 | -0.023 | 0.037 | 4 | -0.049 | 0.025 | 4 | -0.031 | 0.035 | 4 | 0.280111395 |
| 4 | 0.013 | 0.043 | 4 | -0.056 | 0.066 | 4 | -0.031 | 0.037 | 4 | 0.280343467 |
| 4 | 0.008 | 0.031 | 4 | -0.040 | 0.036 | 4 | -0.023 | 0.020 | 4 | 0.28057554 |
| 4 | 0.020 | 0.016 | 4 | -0.032 | 0.038 | 4 | -0.029 | 0.049 | 4 | 0.280807612 |
| 4 | -0.039 | 0.013 | 4 | -0.039 | 0.073 | 4 | -0.009 | 0.035 | 4 | 0.281039684 |
| 4 | 0.003 | 0.024 | 4 | -0.056 | 0.039 | 4 | -0.021 | 0.011 | 4 | 0.281271757 |
| 4 | -0.001 | 0.011 | 4 | -0.036 | 0.014 | 4 | -0.006 | 0.014 | 4 | 0.281503829 |
| 4 | -0.049 | 0.016 | 4 | -0.065 | 0.024 | 4 | -0.022 | 0.017 | 4 | 0.281735902 |
| 4 | 0.013 | 0.037 | 4 | -0.025 | 0.045 | 4 | -0.051 | 0.022 | 4 | 0.281967974 |
| 4 | -0.042 | 0.051 | 4 | -0.033 | 0.044 | 4 | -0.050 | 0.025 | 4 | 0.282200046 |
| 4 | -0.024 | 0.020 | 4 | -0.029 | 0.030 | 4 | -0.037 | 0.019 | 4 | 0.282432119 |
| 2 | -0.013 | 0.006 | 2 | -0.009 | 0.018 | 2 | -0.031 | 0.028 | 2 | 0.282664191 |
| 4 | 0.007 | 0.020 | 4 | -0.015 | 0.046 | 4 | -0.008 | 0.023 | 4 | 0.282896264 |
| 4 | -0.061 | 0.021 | 4 | -0.025 | 0.054 | 4 | 0.003 | 0.031 | 4 | 0.283128336 |
| 2 | -0.035 | 0.001 | 2 | -0.060 | 0.039 | 2 | -0.040 | 0.032 | 2 | 0.283360408 |
| 2 | -0.017 | 0.020 | 2 | -0.097 | 0.044 | 2 | -0.024 | 0.031 | 2 | 0.283592481 |
| 4 | -0.035 | 0.044 | 4 | -0.056 | 0.046 | 4 | -0.040 | 0.018 | 4 | 0.283824553 |
| 4 | -0.015 | 0.024 | 4 | -0.024 | 0.034 | 4 | -0.029 | 0.003 | 4 | 0.284056626 |
| 4 | -0.047 | 0.018 | 4 | -0.061 | 0.068 | 4 | -0.049 | 0.057 | 4 | 0.284288698 |
| 4 | -0.013 | 0.013 | 4 | -0.019 | 0.044 | 4 | -0.002 | 0.022 | 4 | 0.28452077 |
| 3 | -0.026 | 0.019 | 3 | -0.027 | 0.034 | 3 | -0.073 | 0.057 | 3 | 0.284752843 |
| 3 | -0.064 | 0.054 | 4 | -0.081 | 0.080 | 4 | -0.018 | 0.009 | 4 | 0.284984915 |
| 4 | -0.037 | 0.018 | 4 | -0.028 | 0.060 | 4 | -0.025 | 0.040 | 4 | 0.285216988 |
| 4 | -0.015 | 0.027 | 4 | -0.030 | 0.038 | 4 | -0.039 | 0.036 | 4 | 0.28544906 |
| 2 | -0.010 | 0.040 | 2 | -0.086 | 0.041 | 2 | -0.013 | 0.012 | 2 | 0.285681133 |
| 4 | -0.015 | 0.023 | 4 | -0.036 | 0.012 | 4 | -0.021 | 0.046 | 4 | 0.285913205 |
| 4 | -0.009 | 0.010 | 4 | 0.030 | 0.022 | 4 | 0.005 | 0.037 | 4 | 0.286145277 |
| 4 | -0.022 | 0.043 | 4 | 0.003 | 0.034 | 4 | -0.018 | 0.049 | 4 | 0.28637735 |
| 4 | -0.028 | 0.033 | 4 | -0.099 | 0.057 | 4 | -0.046 | 0.012 | 4 | 0.286609422 |
| 4 | -0.011 | 0.017 | 4 | -0.037 | 0.041 | 4 | -0.031 | 0.029 | 4 | 0.286841495 |
| 4 | 0.009 | 0.033 | 4 | 0.002 | 0.048 | 4 | -0.003 | 0.022 | 4 | 0.287073567 |
| 2 | 0.007 | 0.051 | 2 | -0.063 | 0.010 | 2 | -0.071 | 0.000 | 2 | 0.287305639 |
| 2 | -0.031 | 0.022 | 2 | -0.066 | 0.016 | 2 | -0.035 | 0.033 | 2 | 0.287537712 |
| 4 | -0.027 | 0.051 | 4 | -0.035 | 0.023 | 4 | -0.024 | 0.024 | 4 | 0.287769784 |
| 4 | -0.028 | 0.032 | 4 | -0.013 | 0.043 | 4 | -0.048 | 0.068 | 4 | 0.288001857 |
| 2 | -0.042 | 0.024 | 2 | 0.018 | 0.011 | 2 | -0.012 | 0.003 | 2 | 0.288233929 |
| 4 | -0.019 | 0.034 | 4 | -0.031 | 0.053 | 4 | -0.025 | 0.047 | 4 | 0.288466001 |
| 4 | -0.031 | 0.026 | 4 | -0.052 | 0.022 | 4 | -0.026 | 0.024 | 4 | 0.288698074 |
| 4 | -0.034 | 0.034 | 4 | -0.054 | 0.041 | 4 | -0.024 | 0.033 | 4 | 0.288930146 |
| 4 | -0.019 | 0.027 | 4 | -0.042 | 0.053 | 4 | 0.044 | 0.036 | 4 | 0.289162219 |
| 2 | 0.002 | 0.009 | 2 | -0.063 | 0.025 | 2 | 0.018 | 0.024 | 2 | 0.289394291 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 4 | -0.047 | 0.037 | 4 | -0.080 | 0.060 | 4 | -0.026 | 0.029 | 4 | 0.289626363 |
| 4 | 0.004 | 0.043 | 4 | -0.050 | 0.064 | 4 | -0.038 | 0.041 | 4 | 0.289858436 |
| 4 | -0.050 | 0.021 | 4 | -0.058 | 0.031 | 4 | -0.024 | 0.016 | 4 | 0.290090508 |
| 2 | -0.010 | 0.037 | 2 | -0.120 | 0.032 | 2 | -0.064 | 0.033 | 2 | 0.290322581 |
| 4 | -0.028 | 0.038 | 4 | -0.033 | 0.067 | 4 | -0.036 | 0.039 | 4 | 0.290554653 |
| 4 | -0.039 | 0.030 | 4 | -0.037 | 0.035 | 4 | -0.002 | 0.036 | 4 | 0.290786725 |
| 4 | 0.008 | 0.009 | 4 | -0.048 | 0.061 | 4 | -0.060 | 0.022 | 4 | 0.291018798 |
| 3 | -0.017 | 0.014 | 4 | -0.061 | 0.058 | 4 | -0.052 | 0.044 | 4 | 0.29125087 |
| 4 | -0.045 | 0.043 | 4 | -0.020 | 0.053 | 4 | -0.037 | 0.039 | 4 | 0.291482943 |
| 4 | -0.028 | 0.017 | 4 | -0.036 | 0.043 | 4 | -0.001 | 0.029 | 4 | 0.291715015 |
| 4 | -0.065 | 0.031 | 4 | -0.066 | 0.010 | 4 | 0.007 | 0.017 | 4 | 0.291947087 |
| 4 | -0.058 | 0.064 | 4 | -0.032 | 0.062 | 4 | -0.024 | 0.058 | 4 | 0.29217916 |
| 4 | -0.005 | 0.017 | 4 | -0.017 | 0.064 | 4 | -0.027 | 0.044 | 4 | 0.292411232 |
| 3 | 0.005 | 0.006 | 3 | -0.041 | 0.040 | 3 | -0.013 | 0.002 | 3 | 0.292643305 |
| 4 | 0.003 | 0.017 | 4 | -0.013 | 0.053 | 4 | -0.027 | 0.024 | 4 | 0.292875377 |
| 4 | 0.023 | 0.036 | 4 | -0.002 | 0.058 | 4 | -0.099 | 0.226 | 4 | 0.29310745 |
| 4 | 0.081 | 0.065 | 4 | -0.035 | 0.045 | 4 | -0.163 | 0.135 | 4 | 0.293339522 |
| 4 | 0.009 | 0.029 | 4 | -0.052 | 0.044 | 4 | -0.062 | 0.030 | 4 | 0.293571594 |
| 4 | -0.006 | 0.016 | 4 | -0.020 | 0.023 | 4 | -0.057 | 0.072 | 4 | 0.293803667 |
| 2 | 0.001 | 0.039 | 2 | -0.039 | 0.005 | 2 | -0.022 | 0.023 | 2 | 0.294035739 |
| 4 | -0.025 | 0.031 | 4 | -0.042 | 0.057 | 4 | -0.023 | 0.027 | 4 | 0.294267812 |
| 4 | 0.001 | 0.020 | 4 | -0.027 | 0.028 | 4 | -0.069 | 0.024 | 4 | 0.294499884 |
| 4 | -0.005 | 0.053 | 4 | 0.002 | 0.048 | 4 | -0.005 | 0.024 | 4 | 0.294731956 |
| | -0.097 | 0.015 | 2 | 0.002 | 0.061 | 2 | 0.005 | 0.036 | 2 | 0.294964029 |
| 4 | -0.009 | 0.025 | 4 | -0.032 | 0.048 | 4 | -0.021 | 0.029 | 4 | 0.295196101 |
| 4 | -0.016 | 0.039 | 4 | -0.039 | 0.044 | 4 | -0.031 | 0.021 | 4 | 0.295428174 |
| 4 | 0.016 | 0.021 | 4 | -0.080 | 0.051 | 4 | -0.029 | 0.018 | 4 | 0.295660246 |
| 4 | 0.025 | 0.009 | 4 | -0.043 | 0.059 | 4 | -0.046 | 0.023 | 4 | 0.295892318 |
| 4 | -0.034 | 0.012 | 4 | -0.073 | 0.045 | 4 | -0.057 | 0.009 | 4 | 0.296124391 |
| 4 | -0.032 | 0.044 | 4 | -0.016 | 0.057 | 4 | -0.086 | 0.034 | 4 | 0.296356463 |
| 4 | -0.049 | 0.015 | 4 | -0.008 | 0.054 | 4 | 0.031 | 0.021 | 4 | 0.296588536 |
| 4 | -0.023 | 0.068 | 4 | -0.040 | 0.042 | 4 | -0.053 | 0.018 | 4 | 0.296820608 |
| 4 | -0.018 | 0.017 | 4 | -0.043 | 0.041 | 4 | -0.022 | 0.046 | 4 | 0.29705268 |
| 4 | -0.009 | 0.032 | 4 | -0.030 | 0.040 | 4 | -0.008 | 0.030 | 4 | 0.297284753 |
| 4 | -0.007 | 0.018 | 4 | -0.028 | 0.028 | 4 | -0.026 | 0.030 | 4 | 0.297516825 |
| 4 | -0.041 | 0.047 | 4 | -0.031 | 0.044 | 4 | 0.011 | 0.016 | 4 | 0.297748898 |
| 4 | -0.010 | 0.021 | 4 | -0.073 | 0.020 | 4 | -0.005 | 0.026 | 4 | 0.29798097 |
| 4 | -0.012 | 0.025 | 4 | -0.040 | 0.050 | 4 | -0.042 | 0.033 | 4 | 0.298213042 |
| 4 | -0.011 | 0.028 | 4 | -0.034 | 0.046 | 4 | -0.027 | 0.028 | 4 | 0.298445115 |
| 4 | -0.005 | 0.039 | 4 | -0.030 | 0.040 | 4 | -0.019 | 0.058 | 4 | 0.298677187 |
| 4 | -0.014 | 0.022 | 4 | -0.105 | 0.066 | 4 | -0.032 | 0.040 | 4 | 0.29890926 |
| 4 | -0.015 | 0.036 | 4 | -0.016 | 0.043 | 4 | -0.026 | 0.035 | 4 | 0.299141332 |
| 4 | -0.015 | 0.029 | 4 | -0.056 | 0.033 | 4 | -0.023 | 0.014 | 4 | 0.299373405 |
| 4 | -0.031 | 0.018 | 4 | -0.041 | 0.040 | 4 | -0.036 | 0.029 | 4 | 0.299605477 |
| 4 | -0.052 | 0.037 | 4 | -0.027 | 0.030 | 4 | -0.023 | 0.012 | 4 | 0.299837549 |
| 4 | 0.009 | 0.019 | 4 | -0.071 | 0.057 | 4 | -0.049 | 0.030 | 4 | 0.300069622 |
| 2 | -0.030 | 0.012 | 2 | -0.027 | 0.032 | 2 | -0.007 | 0.003 | 2 | 0.300301694 |
| 2 | -0.091 | 0.069 | 3 | 0.010 | 0.075 | 3 | 0.010 | 0.096 | 3 | 0.300533767 |
| 4 | -0.061 | 0.036 | 4 | -0.031 | 0.037 | 4 | 0.017 | 0.050 | 4 | 0.300765839 |
| 4 | -0.022 | 0.057 | 4 | -0.043 | 0.056 | 4 | -0.039 | 0.033 | 4 | 0.300997911 |
| 4 | 0.000 | 0.018 | 4 | -0.054 | 0.049 | 4 | -0.040 | 0.016 | 4 | 0.301229984 |
| 4 | -0.036 | 0.027 | 4 | -0.024 | 0.057 | 4 | 0.020 | 0.035 | 4 | 0.301462056 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 4 | -0.006 | 0.018 | 4 | -0.050 | 0.041 | 4 | -0.035 | 0.041 | 4 | 0.301694129 |
| 3 | -0.054 | 0.065 | 4 | -0.128 | 0.036 | 4 | -0.009 | 0.036 | 4 | 0.301926201 |
| 4 | -0.035 | 0.014 | 4 | -0.045 | 0.050 | 4 | -0.049 | 0.033 | 4 | 0.302158273 |
| 4 | -0.002 | 0.019 | 4 | -0.016 | 0.031 | 4 | -0.019 | 0.032 | 4 | 0.302390346 |
| 4 | -0.001 | 0.043 | 4 | -0.041 | 0.054 | 4 | -0.054 | 0.022 | 4 | 0.302622418 |
| 4 | 0.006 | 0.019 | 4 | -0.018 | 0.026 | 4 | -0.045 | 0.037 | 4 | 0.302854491 |
| 2 | -0.004 | 0.002 | 2 | -0.056 | 0.042 | 2 | -0.031 | 0.023 | 2 | 0.303086563 |
| 4 | -0.014 | 0.029 | 4 | -0.031 | 0.053 | 4 | -0.024 | 0.039 | 4 | 0.303318635 |
| 3 | -0.008 | 0.038 | 4 | -0.029 | 0.030 | 4 | -0.017 | 0.034 | 4 | 0.303550708 |
| 2 | -0.035 | 0.003 | 2 | -0.043 | 0.069 | 2 | -0.028 | 0.027 | 2 | 0.30378278 |
| 4 | 0.003 | 0.022 | 4 | -0.052 | 0.061 | 4 | -0.041 | 0.029 | 4 | 0.304014853 |
| 2 | -0.054 | 0.068 | 2 | -0.055 | 0.025 | 2 | -0.038 | 0.010 | 2 | 0.304246925 |
| 3 | -0.021 | 0.051 | 4 | -0.014 | 0.049 | 4 | -0.020 | 0.029 | 4 | 0.304478997 |
| 4 | -0.016 | 0.039 | 4 | -0.045 | 0.035 | 4 | -0.027 | 0.026 | 4 | 0.30471107 |
| 4 | -0.041 | 0.050 | 4 | -0.036 | 0.024 | 4 | -0.038 | 0.016 | 4 | 0.304943142 |
| 2 | -0.012 | 0.016 | 3 | -0.029 | 0.046 | 3 | -0.008 | 0.023 | 3 | 0.305175215 |
| 4 | -0.014 | 0.023 | 4 | -0.048 | 0.027 | 4 | -0.007 | 0.019 | 4 | 0.305407287 |
| 4 | -0.042 | 0.029 | 4 | -0.032 | 0.048 | 4 | -0.019 | 0.010 | 4 | 0.305639359 |
| 4 | 0.002 | 0.015 | 4 | -0.017 | 0.048 | 4 | -0.027 | 0.009 | 4 | 0.305871432 |
| 4 | -0.061 | 0.052 | 4 | -0.058 | 0.030 | 4 | -0.039 | 0.012 | 4 | 0.306103504 |
| 4 | -0.026 | 0.038 | 4 | -0.047 | 0.032 | 4 | -0.038 | 0.028 | 4 | 0.306335577 |
| 3 | -0.087 | 0.019 | 4 | -0.057 | 0.050 | 4 | 0.056 | 0.027 | 4 | 0.306567649 |
| 4 | -0.083 | 0.050 | 4 | -0.066 | 0.070 | 4 | 0.013 | 0.001 | 4 | 0.306799722 |
| 4 | -0.026 | 0.027 | 4 | -0.019 | 0.012 | 4 | -0.030 | 0.015 | 4 | 0.307031794 |
| 4 | 0.022 | 0.023 | 4 | 0.010 | 0.021 | 4 | -0.182 | 0.224 | 4 | 0.307263866 |
| 2 | -0.048 | 0.051 | 2 | -0.075 | 0.015 | 2 | -0.047 | 0.004 | 2 | 0.307495939 |
| 4 | -0.061 | 0.040 | 4 | 0.011 | 0.046 | 4 | -0.020 | 0.015 | 4 | 0.307728011 |
| 4 | -0.043 | 0.056 | 4 | -0.069 | 0.104 | 4 | -0.039 | 0.047 | 4 | 0.307960084 |
| 4 | -0.025 | 0.024 | 4 | -0.062 | 0.066 | 4 | -0.047 | 0.073 | 4 | 0.308192156 |
| 4 | -0.017 | 0.013 | 4 | -0.071 | 0.058 | 4 | 0.017 | 0.009 | 4 | 0.308424228 |
| 4 | -0.039 | 0.074 | 4 | -0.049 | 0.040 | 4 | -0.022 | 0.027 | 4 | 0.308656301 |
| 4 | -0.048 | 0.026 | 4 | -0.035 | 0.030 | 4 | -0.015 | 0.029 | 4 | 0.308888373 |
| 4 | 0.021 | 0.006 | 4 | -0.058 | 0.039 | 4 | -0.046 | 0.030 | 4 | 0.309120446 |
| 4 | -0.021 | 0.029 | 4 | -0.062 | 0.099 | 4 | -0.084 | 0.056 | 4 | 0.309352518 |
| 4 | -0.011 | 0.016 | 4 | -0.034 | 0.053 | 4 | -0.004 | 0.025 | 4 | 0.30958459 |
| 4 | -0.065 | 0.020 | 4 | -0.036 | 0.017 | 4 | 0.001 | 0.034 | 4 | 0.309816663 |
| 4 | 0.024 | 0.013 | 4 | -0.073 | 0.046 | 4 | -0.017 | 0.040 | 4 | 0.310048735 |
| 4 | -0.073 | 0.036 | 4 | -0.049 | 0.014 | 4 | -0.016 | 0.007 | 4 | 0.310280808 |
| 2 | -0.034 | 0.045 | 2 | -0.112 | 0.003 | 2 | -0.084 | 0.015 | 2 | 0.31051288 |
| 4 | -0.027 | 0.041 | 4 | -0.035 | 0.064 | 4 | -0.032 | 0.038 | 4 | 0.310744952 |
| 4 | -0.001 | 0.090 | 4 | -0.037 | 0.098 | 4 | -0.027 | 0.104 | 4 | 0.310977025 |
| 4 | -0.028 | 0.016 | 4 | -0.045 | 0.025 | 4 | -0.031 | 0.027 | 4 | 0.311209097 |
| 4 | -0.042 | 0.021 | 4 | -0.022 | 0.024 | 4 | -0.019 | 0.024 | 4 | 0.31144117 |
| 4 | -0.038 | 0.032 | 4 | 0.003 | 0.035 | 4 | -0.025 | 0.028 | 4 | 0.311673242 |
| 3 | -0.013 | 0.035 | 4 | -0.046 | 0.057 | 4 | -0.045 | 0.053 | 4 | 0.311905314 |
| 4 | -0.045 | 0.024 | 4 | -0.065 | 0.035 | 4 | -0.049 | 0.021 | 4 | 0.312137387 |
| 4 | -0.028 | 0.030 | 4 | -0.023 | 0.040 | 4 | -0.071 | 0.018 | 4 | 0.312369459 |
| 2 | -0.008 | 0.011 | 2 | 0.013 | 0.039 | 2 | -0.064 | 0.013 | 2 | 0.312601532 |
| 4 | -0.020 | 0.021 | 4 | -0.052 | 0.060 | 4 | -0.036 | 0.030 | 4 | 0.312833604 |
| 4 | -0.046 | 0.029 | 4 | -0.019 | 0.040 | 4 | -0.021 | 0.028 | 4 | 0.313065676 |
| 4 | -0.030 | 0.025 | 4 | -0.038 | 0.027 | 4 | -0.027 | 0.012 | 4 | 0.313297749 |
| 4 | -0.062 | 0.030 | 4 | -0.076 | 0.032 | 4 | -0.018 | 0.017 | 4 | 0.313529821 |

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|---|---|---|---|---|---|---|---|---|---|---|
| 4 | -0.022 | 0.035 | 4 | -0.033 | 0.047 | 4 | -0.023 | 0.041 | 4 | 0.313761894 |
| 4 | -0.007 | 0.020 | 4 | -0.004 | 0.051 | 4 | -0.053 | 0.029 | 4 | 0.313993966 |
| 4 | -0.009 | 0.035 | 4 | 0.003 | 0.056 | 4 | -0.123 | 0.139 | 4 | 0.314226039 |
| 4 | 0.003 | 0.039 | 4 | -0.041 | 0.030 | 4 | -0.024 | 0.024 | 4 | 0.314458111 |
| 4 | -0.034 | 0.022 | 4 | -0.004 | 0.039 | 4 | -0.049 | 0.026 | 4 | 0.314690183 |
| 2 | -0.020 | 0.029 | 2 | -0.030 | 0.025 | 2 | -0.034 | 0.009 | 2 | 0.314922256 |
| 4 | -0.028 | 0.002 | 4 | -0.025 | 0.036 | 4 | -0.043 | 0.023 | 4 | 0.315154328 |
| 2 | 0.008 | 0.025 | 2 | -0.041 | 0.007 | 2 | 0.002 | 0.025 | 2 | 0.315386401 |
| 4 | 0.007 | 0.026 | 4 | -0.035 | 0.056 | 4 | -0.028 | 0.029 | 4 | 0.315618473 |
| 4 | 0.016 | 0.036 | 4 | 0.010 | 0.027 | 4 | -0.083 | 0.125 | 4 | 0.315850545 |
| 4 | 0.024 | 0.021 | 4 | 0.003 | 0.067 | 4 | -0.045 | 0.033 | 4 | 0.316082618 |
| 4 | -0.009 | 0.027 | 4 | -0.048 | 0.024 | 4 | -0.036 | 0.014 | 4 | 0.31631469 |
| 4 | -0.020 | 0.007 | 4 | 0.011 | 0.039 | 4 | -0.029 | 0.022 | 4 | 0.316546763 |
| 4 | -0.034 | 0.051 | 4 | -0.020 | 0.048 | 4 | -0.020 | 0.053 | 4 | 0.316778835 |
| | -0.068 | 0.006 | 3 | -0.028 | 0.017 | 3 | 0.012 | 0.026 | 3 | 0.317010907 |
| 4 | -0.006 | 0.018 | 4 | -0.052 | 0.070 | 4 | -0.013 | 0.027 | 4 | 0.31724298 |
| 4 | -0.054 | 0.060 | 4 | -0.024 | 0.048 | 4 | -0.015 | 0.029 | 4 | 0.317475052 |
| 4 | -0.042 | 0.034 | 4 | -0.053 | 0.047 | 4 | -0.046 | 0.033 | 4 | 0.317707125 |
| 4 | -0.015 | 0.006 | 4 | -0.040 | 0.031 | 4 | -0.022 | 0.021 | 4 | 0.317939197 |
| 3 | -0.065 | 0.030 | 4 | -0.002 | 0.023 | 4 | -0.051 | 0.016 | 4 | 0.318171269 |
| 4 | -0.024 | 0.035 | 4 | -0.018 | 0.032 | 4 | -0.039 | 0.021 | 4 | 0.318403342 |
| 4 | 0.004 | 0.018 | 4 | -0.060 | 0.067 | 4 | -0.044 | 0.028 | 4 | 0.318635414 |
| 4 | 0.020 | 0.044 | 4 | -0.046 | 0.084 | 4 | -0.070 | 0.065 | 4 | 0.318867487 |
| 4 | -0.005 | 0.037 | 4 | -0.059 | 0.037 | 4 | -0.039 | 0.029 | 4 | 0.319099559 |
| 2 | -0.070 | 0.007 | 2 | -0.132 | 0.018 | 2 | 0.078 | 0.007 | 2 | 0.319331631 |
| 4 | -0.031 | 0.032 | 4 | -0.003 | 0.038 | 4 | -0.012 | 0.029 | 4 | 0.319563704 |
| 2 | -0.022 | 0.030 | 2 | -0.051 | 0.044 | 2 | -0.040 | 0.013 | 2 | 0.319795776 |
| 4 | -0.015 | 0.014 | 4 | -0.046 | 0.026 | 4 | -0.038 | 0.030 | 4 | 0.320027849 |
| 4 | -0.025 | 0.023 | 4 | -0.003 | 0.035 | 4 | -0.041 | 0.028 | 4 | 0.320259921 |
| 2 | -0.018 | 0.026 | 2 | -0.041 | 0.015 | 2 | -0.030 | 0.014 | 2 | 0.320491994 |
| 4 | -0.018 | 0.027 | 4 | 0.005 | 0.024 | 4 | -0.006 | 0.031 | 4 | 0.320724066 |
| 4 | 0.002 | 0.020 | 4 | -0.002 | 0.012 | 4 | -0.008 | 0.017 | 4 | 0.320956138 |
| 4 | -0.101 | 0.033 | 4 | -0.046 | 0.021 | 4 | 0.018 | 0.030 | 4 | 0.321188211 |
| 4 | -0.011 | 0.030 | 4 | -0.044 | 0.029 | 4 | -0.042 | 0.026 | 4 | 0.321420283 |
| 4 | -0.003 | 0.038 | 4 | -0.011 | 0.038 | 4 | -0.025 | 0.019 | 4 | 0.321652356 |
| 4 | -0.018 | 0.021 | 4 | -0.047 | 0.051 | 4 | -0.032 | 0.031 | 4 | 0.321884428 |
| 4 | -0.020 | 0.032 | 4 | -0.064 | 0.035 | 4 | -0.027 | 0.014 | 4 | 0.3221165 |
| 4 | -0.016 | 0.029 | 4 | -0.024 | 0.048 | 4 | -0.017 | 0.030 | 4 | 0.322348573 |
| 4 | -0.017 | 0.008 | 4 | -0.066 | 0.047 | 4 | -0.046 | 0.030 | 4 | 0.322580645 |
| 4 | -0.002 | 0.009 | 4 | -0.073 | 0.011 | 4 | -0.019 | 0.026 | 4 | 0.322812718 |
| 3 | -0.066 | 0.047 | 3 | 0.001 | 0.029 | 3 | -0.010 | 0.017 | 3 | 0.32304479 |
| 4 | -0.022 | 0.025 | 4 | -0.026 | 0.083 | 4 | -0.034 | 0.074 | 4 | 0.323276862 |
| 4 | -0.022 | 0.027 | 4 | -0.072 | 0.039 | 4 | -0.019 | 0.011 | 4 | 0.323508935 |
| 4 | -0.002 | 0.013 | 4 | -0.044 | 0.032 | 4 | -0.060 | 0.007 | 4 | 0.323741007 |
| 3 | -0.058 | 0.030 | 3 | -0.085 | 0.065 | 3 | -0.019 | 0.090 | 3 | 0.32397308 |
| 4 | 0.011 | 0.055 | 4 | -0.064 | 0.034 | 4 | -0.017 | 0.058 | 4 | 0.324205152 |
| 4 | -0.004 | 0.044 | 4 | -0.037 | 0.029 | 4 | -0.010 | 0.035 | 4 | 0.324437224 |
| 4 | -0.030 | 0.026 | 4 | -0.075 | 0.030 | 4 | -0.020 | 0.038 | 4 | 0.324669297 |
| 2 | -0.003 | 0.011 | 2 | -0.031 | 0.066 | 2 | -0.020 | 0.031 | 2 | 0.324901369 |
| 4 | 0.003 | 0.044 | 4 | -0.049 | 0.032 | 4 | -0.042 | 0.023 | 4 | 0.325133442 |
| 4 | -0.031 | 0.045 | 4 | -0.019 | 0.026 | 4 | -0.024 | 0.027 | 4 | 0.325365514 |
| 2 | -0.039 | 0.065 | 2 | -0.028 | 0.008 | 2 | -0.025 | 0.019 | 2 | 0.325597586 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 4 | -0.045 | 0.045 | 4 | -0.044 | 0.059 | 4 | 0.011 | 0.030 | 4 | 0.325829659 |
| 4 | 0.018 | 0.048 | 4 | -0.084 | 0.031 | 4 | -0.090 | 0.039 | 4 | 0.326061731 |
| 4 | -0.012 | 0.035 | 4 | 0.006 | 0.045 | 4 | 0.001 | 0.035 | 4 | 0.326293804 |
| 4 | -0.042 | 0.018 | 4 | -0.058 | 0.047 | 4 | -0.022 | 0.021 | 4 | 0.326525876 |
| 4 | 0.007 | 0.035 | 4 | -0.024 | 0.041 | 4 | -0.033 | 0.027 | 4 | 0.326757948 |
| 4 | -0.072 | 0.046 | 4 | 0.045 | 0.025 | 4 | -0.019 | 0.028 | 4 | 0.326990021 |
| 4 | -0.004 | 0.057 | 4 | -0.023 | 0.034 | 4 | -0.003 | 0.049 | 4 | 0.327222093 |
| 3 | -0.087 | 0.030 | 4 | -0.041 | 0.017 | 4 | 0.013 | 0.014 | 4 | 0.327454166 |
| 4 | -0.025 | 0.030 | 4 | -0.031 | 0.034 | 4 | -0.020 | 0.024 | 4 | 0.327686238 |
| 4 | 0.021 | 0.034 | 4 | -0.034 | 0.026 | 4 | -0.020 | 0.041 | 4 | 0.327918311 |
| 4 | -0.016 | 0.031 | 4 | 0.003 | 0.054 | 4 | -0.022 | 0.036 | 4 | 0.328150383 |
| 4 | 0.006 | 0.043 | 4 | -0.050 | 0.054 | 4 | -0.027 | 0.022 | 4 | 0.328382455 |
| 4 | -0.050 | 0.016 | 4 | -0.019 | 0.043 | 4 | -0.043 | 0.038 | 4 | 0.328614528 |
| 4 | -0.028 | 0.023 | 4 | -0.049 | 0.042 | 4 | -0.020 | 0.026 | 4 | 0.3288466 |
| 3 | 0.016 | 0.026 | 3 | -0.037 | 0.042 | 3 | -0.074 | 0.038 | 3 | 0.329078673 |
| | -0.092 | 0.023 | 2 | -0.005 | 0.025 | 2 | 0.017 | 0.113 | 2 | 0.329310745 |
| 3 | -0.027 | 0.016 | 3 | -0.031 | 0.047 | 3 | -0.027 | 0.016 | 3 | 0.329542817 |
| 2 | -0.046 | 0.052 | 2 | -0.087 | 0.050 | 2 | -0.069 | 0.028 | 2 | 0.32977489 |
| 4 | 0.017 | 0.034 | 4 | -0.040 | 0.036 | 4 | -0.041 | 0.014 | 4 | 0.330006962 |
| 2 | -0.050 | 0.013 | 2 | -0.062 | 0.026 | 2 | -0.030 | 0.002 | 2 | 0.330239035 |
| 3 | -0.065 | 0.033 | 4 | -0.019 | 0.036 | 4 | -0.020 | 0.017 | 4 | 0.330471107 |
| 2 | -0.022 | 0.021 | 2 | -0.017 | 0.056 | 2 | -0.026 | 0.001 | 2 | 0.330703179 |
| 3 | -0.015 | 0.045 | 4 | -0.061 | 0.022 | 4 | -0.015 | 0.016 | 4 | 0.330935252 |
| 4 | -0.005 | 0.028 | 4 | -0.032 | 0.069 | 4 | -0.023 | 0.040 | 4 | 0.331167324 |
| 4 | 0.014 | 0.025 | 4 | 0.002 | 0.013 | 4 | -0.079 | 0.114 | 4 | 0.331399397 |
| 4 | -0.006 | 0.033 | 4 | -0.045 | 0.087 | 4 | -0.026 | 0.056 | 4 | 0.331631469 |
| 4 | -0.004 | 0.018 | 4 | -0.086 | 0.032 | 4 | -0.020 | 0.046 | 4 | 0.331863541 |
| 2 | -0.007 | 0.016 | 3 | -0.059 | 0.034 | 3 | -0.018 | 0.036 | 3 | 0.332095614 |
| 2 | -0.033 | 0.052 | 2 | -0.043 | 0.033 | 2 | -0.016 | 0.031 | 2 | 0.332327686 |
| 3 | -0.032 | 0.033 | 4 | -0.071 | 0.044 | 4 | -0.007 | 0.019 | 4 | 0.332559759 |
| 4 | 0.027 | 0.050 | 4 | -0.032 | 0.014 | 4 | -0.032 | 0.035 | 4 | 0.332791831 |
| 4 | -0.015 | 0.013 | 4 | -0.046 | 0.042 | 4 | 0.001 | 0.025 | 4 | 0.333023903 |
| 3 | -0.004 | 0.037 | 3 | -0.025 | 0.034 | 3 | -0.025 | 0.044 | 3 | 0.333255976 |
| 4 | -0.015 | 0.025 | 4 | -0.030 | 0.025 | 4 | -0.016 | 0.024 | 4 | 0.333488048 |
| 4 | -0.006 | 0.024 | 4 | -0.027 | 0.052 | 4 | -0.048 | 0.014 | 4 | 0.333720121 |
| 3 | -0.029 | 0.043 | 4 | -0.037 | 0.036 | 4 | -0.025 | 0.046 | 4 | 0.333952193 |
| 2 | -0.041 | 0.004 | 2 | -0.002 | 0.019 | 2 | -0.027 | 0.045 | 2 | 0.334184265 |
| 2 | -0.004 | 0.014 | 3 | -0.018 | 0.003 | 3 | -0.105 | 0.069 | 3 | 0.334416338 |
| 4 | -0.022 | 0.013 | 4 | -0.054 | 0.016 | 4 | -0.028 | 0.018 | 4 | 0.33464841 |
| 4 | -0.002 | 0.021 | 4 | -0.081 | 0.041 | 4 | 0.057 | 0.031 | 4 | 0.334880483 |
| 4 | -0.013 | 0.040 | 4 | -0.019 | 0.058 | 4 | -0.018 | 0.024 | 4 | 0.335112555 |
| 4 | -0.011 | 0.035 | 4 | -0.009 | 0.056 | 4 | -0.039 | 0.031 | 4 | 0.335344628 |
| 4 | -0.013 | 0.017 | 4 | -0.080 | 0.052 | 4 | -0.008 | 0.040 | 4 | 0.3355767 |
| 4 | -0.043 | 0.019 | 4 | -0.078 | 0.032 | 4 | -0.070 | 0.029 | 4 | 0.335808772 |
| 4 | 0.008 | 0.010 | 4 | -0.055 | 0.064 | 4 | -0.014 | 0.027 | 4 | 0.336040845 |
| 4 | -0.009 | 0.022 | 4 | -0.024 | 0.037 | 4 | -0.027 | 0.017 | 4 | 0.336272917 |
| 2 | -0.040 | 0.023 | 3 | -0.037 | 0.037 | 3 | -0.088 | 0.033 | 3 | 0.33650499 |
| 4 | -0.024 | 0.024 | 4 | -0.067 | 0.050 | 4 | -0.037 | 0.022 | 4 | 0.336737062 |
| 4 | -0.028 | 0.005 | 4 | -0.025 | 0.059 | 4 | -0.045 | 0.052 | 4 | 0.336969134 |
| 4 | -0.015 | 0.035 | 4 | -0.025 | 0.031 | 4 | -0.033 | 0.032 | 4 | 0.337201207 |
| 4 | -0.032 | 0.021 | 4 | 0.011 | 0.027 | 4 | -0.032 | 0.058 | 4 | 0.337433279 |
| 4 | -0.035 | 0.034 | 4 | -0.034 | 0.044 | 4 | -0.014 | 0.031 | 4 | 0.337665352 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 4 | -0.026 | 0.032 | 4 | -0.029 | 0.050 | 4 | -0.075 | 0.038 | 4 | 0.337897424 |
| 3 | -0.002 | 0.032 | 3 | -0.046 | 0.052 | 3 | -0.064 | 0.034 | 3 | 0.338129496 |
| 4 | -0.014 | 0.033 | 4 | -0.030 | 0.048 | 4 | -0.018 | 0.039 | 4 | 0.338361569 |
| 4 | -0.016 | 0.032 | 4 | -0.050 | 0.061 | 4 | -0.003 | 0.016 | 4 | 0.338593641 |
| 4 | -0.025 | 0.021 | 4 | -0.039 | 0.055 | 4 | -0.025 | 0.046 | 4 | 0.338825714 |
| 4 | -0.019 | 0.033 | 4 | -0.004 | 0.060 | 4 | -0.058 | 0.034 | 4 | 0.339057786 |
| 4 | 0.021 | 0.022 | 4 | -0.054 | 0.011 | 4 | -0.051 | 0.059 | 4 | 0.339289858 |
| 4 | -0.025 | 0.049 | 4 | 0.001 | 0.034 | 4 | -0.028 | 0.054 | 4 | 0.339521931 |
| 3 | -0.007 | 0.023 | 4 | -0.069 | 0.067 | 4 | -0.044 | 0.054 | 4 | 0.339754003 |
| 4 | -0.094 | 0.018 | 4 | -0.005 | 0.045 | 4 | -0.010 | 0.010 | 4 | 0.339986076 |
| 4 | -0.011 | 0.015 | 4 | -0.057 | 0.025 | 4 | -0.021 | 0.014 | 4 | 0.340218148 |
| 4 | -0.008 | 0.020 | 4 | -0.017 | 0.074 | 4 | -0.044 | 0.030 | 4 | 0.34045022 |
| 3 | 0.081 | 0.038 | 4 | -0.073 | 0.039 | 4 | -0.057 | 0.121 | 4 | 0.340682293 |
| 2 | -0.092 | 0.019 | 2 | -0.074 | 0.027 | 2 | -0.042 | 0.015 | 2 | 0.340914365 |
| 4 | -0.001 | 0.013 | 4 | -0.061 | 0.047 | 4 | -0.032 | 0.020 | 4 | 0.341146438 |
| 4 | 0.020 | 0.012 | 4 | -0.046 | 0.032 | 4 | 0.001 | 0.014 | 4 | 0.34137851 |
| 4 | -0.013 | 0.043 | 4 | -0.008 | 0.032 | 4 | -0.039 | 0.014 | 4 | 0.341610583 |
| 4 | -0.037 | 0.038 | 4 | -0.015 | 0.012 | 4 | -0.009 | 0.006 | 4 | 0.341842655 |
| 4 | -0.009 | 0.021 | 4 | -0.026 | 0.033 | 4 | -0.023 | 0.025 | 4 | 0.342074727 |
| 2 | -0.023 | 0.035 | 4 | -0.028 | 0.019 | 4 | -0.033 | 0.011 | 4 | 0.3423068 |
| 4 | -0.028 | 0.032 | 4 | -0.029 | 0.031 | 4 | -0.013 | 0.014 | 4 | 0.342538872 |
| 3 | -0.048 | 0.039 | 4 | -0.060 | 0.031 | 4 | -0.087 | 0.009 | 4 | 0.342770945 |
| 4 | -0.027 | 0.015 | 4 | -0.001 | 0.050 | 4 | 0.018 | 0.031 | 4 | 0.343003017 |
| 4 | -0.017 | 0.021 | 4 | -0.005 | 0.016 | 4 | -0.114 | 0.031 | 4 | 0.343235089 |
| 4 | 0.013 | 0.037 | 4 | -0.017 | 0.066 | 4 | -0.049 | 0.024 | 4 | 0.343467162 |
| 4 | -0.008 | 0.014 | 4 | -0.048 | 0.030 | 4 | -0.066 | 0.034 | 4 | 0.343699234 |
| 4 | -0.005 | 0.008 | 4 | -0.016 | 0.040 | 4 | -0.011 | 0.027 | 4 | 0.343931307 |
| 4 | -0.002 | 0.011 | 4 | -0.046 | 0.033 | 4 | -0.055 | 0.014 | 4 | 0.344163379 |
| 3 | 0.032 | 0.058 | 4 | -0.056 | 0.046 | 4 | -0.021 | 0.019 | 4 | 0.344395451 |
| | -0.002 | 0.018 | 3 | -0.015 | 0.025 | 3 | -0.059 | 0.011 | 3 | 0.344627524 |
| 4 | -0.041 | 0.016 | 4 | -0.030 | 0.063 | 4 | -0.082 | 0.059 | 4 | 0.344859596 |
| 2 | 0.000 | 0.029 | 3 | -0.042 | 0.046 | 3 | -0.034 | 0.033 | 3 | 0.345091669 |
| 4 | -0.009 | 0.031 | 4 | -0.062 | 0.041 | 4 | -0.025 | 0.054 | 4 | 0.345323741 |
| 4 | -0.058 | 0.053 | 4 | -0.024 | 0.050 | 4 | -0.091 | 0.027 | 4 | 0.345555813 |
| 4 | -0.018 | 0.023 | 4 | -0.040 | 0.085 | 4 | -0.023 | 0.059 | 4 | 0.345787886 |
| 4 | 0.009 | 0.026 | 4 | -0.088 | 0.054 | 4 | -0.045 | 0.030 | 4 | 0.346019958 |
| 4 | -0.017 | 0.017 | 4 | -0.055 | 0.049 | 4 | -0.025 | 0.024 | 4 | 0.346252031 |
| 2 | -0.005 | 0.048 | 3 | -0.040 | 0.043 | 3 | -0.015 | 0.014 | 3 | 0.346484103 |
| 4 | -0.006 | 0.009 | 4 | -0.051 | 0.042 | 4 | -0.044 | 0.017 | 4 | 0.346716175 |
| 4 | 0.009 | 0.020 | 4 | -0.041 | 0.018 | 4 | -0.001 | 0.020 | 4 | 0.346948248 |
| 4 | -0.024 | 0.043 | 4 | 0.002 | 0.027 | 4 | 0.007 | 0.020 | 4 | 0.34718032 |
| 4 | -0.041 | 0.025 | 4 | -0.001 | 0.062 | 4 | -0.011 | 0.042 | 4 | 0.347412393 |
| 2 | -0.036 | 0.018 | 3 | -0.035 | 0.042 | 3 | -0.016 | 0.014 | 3 | 0.347644465 |
| 4 | -0.022 | 0.022 | 4 | -0.026 | 0.059 | 4 | -0.049 | 0.018 | 4 | 0.347876537 |
| 3 | -0.042 | 0.034 | 3 | -0.055 | 0.042 | 3 | 0.006 | 0.052 | 3 | 0.34810861 |
| 4 | -0.004 | 0.027 | 4 | -0.093 | 0.040 | 4 | 0.008 | 0.019 | 4 | 0.348340682 |
| 4 | -0.069 | 0.026 | 4 | -0.008 | 0.033 | 4 | 0.002 | 0.009 | 4 | 0.348572755 |
| 4 | 0.045 | 0.027 | 4 | -0.067 | 0.046 | 4 | -0.105 | 0.193 | 4 | 0.348804827 |
| 4 | -0.020 | 0.017 | 4 | -0.010 | 0.030 | 4 | -0.030 | 0.013 | 4 | 0.3490369 |
| 4 | -0.022 | 0.014 | 4 | -0.006 | 0.024 | 4 | -0.009 | 0.006 | 4 | 0.349268972 |
| 2 | -0.008 | 0.021 | 2 | -0.045 | 0.064 | 2 | -0.026 | 0.047 | 2 | 0.349501044 |
| 4 | -0.022 | 0.008 | 4 | -0.049 | 0.058 | 4 | -0.027 | 0.024 | 4 | 0.349733117 |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| 4 | | 0.001 | 0.039 | 4 | -0.034 | 0.025 | 4 | -0.010 | 0.035 | 4 | 0.349965189 |
| 3 | | -0.061 | 0.050 | 3 | -0.010 | 0.025 | 3 | -0.074 | 0.028 | 3 | 0.350197262 |
| 4 | | -0.008 | 0.039 | 4 | -0.022 | 0.076 | 4 | -0.042 | 0.028 | 4 | 0.350429334 |
| 2 | 2 | -0.123 | 0.014 | 2 | 0.040 | 0.004 | 2 | 0.284 | 0.063 | 2 | 0.350661406 |
| 4 | | 0.032 | 0.013 | 4 | -0.059 | 0.056 | 4 | -0.041 | 0.034 | 4 | 0.350893479 |
| 4 | | 0.007 | 0.027 | 4 | -0.026 | 0.039 | 4 | -0.025 | 0.061 | 4 | 0.351125551 |
| 4 | | -0.026 | 0.032 | 4 | -0.021 | 0.058 | 4 | -0.011 | 0.041 | 4 | 0.351357624 |
| 4 | | 0.005 | 0.022 | 4 | -0.024 | 0.048 | 4 | -0.028 | 0.045 | 4 | 0.351589696 |
| 4 | | -0.156 | 0.035 | 4 | -0.060 | 0.046 | 4 | 0.101 | 0.024 | 4 | 0.351821768 |
| 4 | | -0.005 | 0.039 | 4 | -0.037 | 0.033 | 4 | -0.039 | 0.010 | 4 | 0.352053841 |
| 4 | | 0.000 | 0.033 | 4 | -0.078 | 0.053 | 4 | -0.034 | 0.009 | 4 | 0.352285913 |
| 4 | | -0.046 | 0.025 | 4 | 0.013 | 0.026 | 4 | -0.027 | 0.013 | 4 | 0.352517986 |
| 4 | | 0.010 | 0.025 | 4 | -0.060 | 0.075 | 4 | -0.041 | 0.070 | 4 | 0.352750058 |
| 4 | | -0.001 | 0.013 | 4 | -0.047 | 0.056 | 4 | -0.012 | 0.030 | 4 | 0.35298213 |
| 4 | | -0.026 | 0.017 | 4 | -0.019 | 0.050 | 4 | -0.084 | 0.041 | 4 | 0.353214203 |
| 4 | | 0.007 | 0.012 | 4 | -0.024 | 0.055 | 4 | -0.009 | 0.063 | 4 | 0.353446275 |
| 2 | | 0.037 | 0.039 | 2 | -0.074 | 0.045 | 2 | -0.021 | 0.036 | 2 | 0.353678348 |
| 4 | | -0.017 | 0.030 | 4 | -0.006 | 0.051 | 4 | -0.035 | 0.009 | 4 | 0.35391042 |
| 4 | | -0.004 | 0.015 | 4 | -0.039 | 0.047 | 4 | -0.016 | 0.025 | 4 | 0.354142492 |
| 4 | | -0.026 | 0.015 | 4 | -0.052 | 0.044 | 4 | -0.017 | 0.013 | 4 | 0.354374565 |
| 4 | | -0.051 | 0.082 | 4 | -0.031 | 0.049 | 4 | -0.024 | 0.044 | 4 | 0.354606637 |
| 4 | | -0.003 | 0.006 | 4 | -0.039 | 0.030 | 4 | -0.007 | 0.038 | 4 | 0.35483871 |
| 4 | | -0.011 | 0.010 | 4 | -0.028 | 0.016 | 4 | -0.032 | 0.022 | 4 | 0.355070782 |
| 3 | | -0.041 | 0.012 | 4 | -0.025 | 0.061 | 4 | -0.030 | 0.039 | 4 | 0.355302854 |
| 4 | | -0.020 | 0.033 | 4 | -0.038 | 0.042 | 4 | -0.012 | 0.029 | 4 | 0.355534927 |
| 3 | | 0.002 | 0.038 | 3 | 0.010 | 0.009 | 3 | -0.017 | 0.026 | 3 | 0.355766999 |
| 4 | | -0.019 | 0.032 | 4 | 0.043 | 0.024 | 4 | -0.065 | 0.039 | 4 | 0.355999072 |
| 4 | | 0.008 | 0.029 | 4 | -0.043 | 0.062 | 4 | -0.001 | 0.021 | 4 | 0.356231144 |
| 4 | | -0.023 | 0.020 | 4 | -0.043 | 0.035 | 4 | -0.002 | 0.019 | 4 | 0.356463217 |
| 4 | | -0.014 | 0.026 | 4 | -0.030 | 0.025 | 4 | -0.025 | 0.010 | 4 | 0.356695289 |
| 4 | | 0.015 | 0.026 | 4 | -0.057 | 0.035 | 4 | -0.043 | 0.025 | 4 | 0.356927361 |
| 2 | | -0.004 | 0.008 | 2 | -0.050 | 0.052 | 2 | -0.018 | 0.032 | 2 | 0.357159434 |
| 2 | | -0.021 | 0.004 | 3 | -0.041 | 0.054 | 3 | -0.048 | 0.005 | 3 | 0.357391506 |
| 2 | | -0.047 | 0.046 | 3 | -0.086 | 0.024 | 3 | 0.045 | 0.060 | 3 | 0.357623579 |
| 4 | | -0.024 | 0.039 | 4 | -0.038 | 0.051 | 4 | -0.015 | 0.028 | 4 | 0.357855651 |
| 4 | | 0.012 | 0.080 | 4 | -0.111 | 0.062 | 4 | -0.008 | 0.078 | 4 | 0.358087723 |
| 4 | | -0.005 | 0.020 | 4 | -0.059 | 0.061 | 4 | -0.028 | 0.049 | 4 | 0.358319796 |
| 4 | | -0.025 | 0.033 | 4 | -0.068 | 0.033 | 4 | -0.027 | 0.014 | 4 | 0.358551868 |
| 4 | | -0.029 | 0.045 | 4 | -0.044 | 0.053 | 4 | -0.002 | 0.024 | 4 | 0.358783941 |
| 3 | | -0.002 | 0.017 | 4 | -0.024 | 0.064 | 4 | -0.028 | 0.013 | 4 | 0.359016013 |
| 4 | | -0.011 | 0.032 | 4 | -0.057 | 0.075 | 4 | -0.046 | 0.077 | 4 | 0.359248085 |
| 4 | | 0.001 | 0.018 | 4 | -0.022 | 0.053 | 4 | -0.035 | 0.034 | 4 | 0.359480158 |
| 4 | | -0.036 | 0.003 | 4 | 0.005 | 0.032 | 4 | -0.002 | 0.006 | 4 | 0.35971223 |
| 4 | | -0.018 | 0.045 | 4 | -0.039 | 0.035 | 4 | 0.014 | 0.039 | 4 | 0.359944303 |
| 4 | | -0.024 | 0.061 | 4 | -0.065 | 0.051 | 4 | -0.006 | 0.044 | 4 | 0.360176375 |
| 4 | | -0.009 | 0.020 | 4 | -0.039 | 0.033 | 4 | -0.014 | 0.036 | 4 | 0.360408447 |
| 4 | | -0.032 | 0.021 | 4 | -0.007 | 0.050 | 4 | -0.023 | 0.039 | 4 | 0.36064052 |
| 4 | | -0.016 | 0.026 | 4 | 0.007 | 0.035 | 4 | -0.011 | 0.016 | 4 | 0.360872592 |
| 4 | | -0.023 | 0.050 | 4 | -0.033 | 0.060 | 4 | -0.027 | 0.049 | 4 | 0.361104665 |
| 4 | | -0.003 | 0.025 | 4 | -0.027 | 0.035 | 4 | -0.077 | 0.058 | 4 | 0.361336737 |
| 4 | | -0.027 | 0.040 | 4 | 0.019 | 0.041 | 4 | -0.007 | 0.026 | 4 | 0.361568809 |
| 3 | | 0.004 | 0.046 | 3 | -0.015 | 0.027 | 3 | -0.021 | 0.045 | 3 | 0.361800882 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 2 | -0.092 | 0.044 | 2 | -0.086 | 0.007 | 2 | 0.042 | 0.003 | 2 | 0.362032954 |
| 4 | -0.014 | 0.054 | 4 | -0.029 | 0.037 | 4 | -0.036 | 0.027 | 4 | 0.362265027 |
| 4 | -0.070 | 0.039 | 4 | -0.095 | 0.035 | 4 | 0.043 | 0.021 | 4 | 0.362497099 |
| 4 | -0.005 | 0.038 | 4 | -0.054 | 0.033 | 4 | -0.024 | 0.031 | 4 | 0.362729172 |
| 4 | -0.003 | 0.034 | 4 | -0.022 | 0.028 | 4 | -0.022 | 0.026 | 4 | 0.362961244 |
| 4 | -0.022 | 0.027 | 4 | -0.010 | 0.063 | 4 | -0.002 | 0.052 | 4 | 0.363193316 |
| 4 | -0.014 | 0.034 | 4 | -0.026 | 0.048 | 4 | -0.002 | 0.068 | 4 | 0.363425389 |
| 4 | -0.032 | 0.017 | 4 | -0.039 | 0.043 | 4 | -0.038 | 0.036 | 4 | 0.363657461 |
| 4 | 0.001 | 0.033 | 4 | -0.014 | 0.054 | 4 | -0.055 | 0.058 | 4 | 0.363889534 |
| 2 | -0.080 | 0.008 | 2 | -0.022 | 0.049 | 2 | -0.015 | 0.027 | 2 | 0.364121606 |
| 4 | -0.015 | 0.032 | 4 | -0.040 | 0.044 | 4 | -0.016 | 0.029 | 4 | 0.364353678 |
| 4 | -0.014 | 0.063 | 4 | -0.034 | 0.032 | 4 | -0.023 | 0.044 | 4 | 0.364585751 |
| 4 | -0.007 | 0.045 | 4 | -0.041 | 0.079 | 4 | 0.007 | 0.043 | 4 | 0.364817823 |
| 4 | -0.023 | 0.022 | 4 | -0.013 | 0.042 | 4 | -0.006 | 0.005 | 4 | 0.365049896 |
| 4 | 0.002 | 0.009 | 4 | -0.008 | 0.044 | 4 | 0.000 | 0.026 | 4 | 0.365281968 |
| 4 | -0.013 | 0.033 | 4 | -0.023 | 0.069 | 4 | -0.043 | 0.023 | 4 | 0.36551404 |
| 4 | -0.046 | 0.013 | 4 | -0.044 | 0.035 | 4 | -0.024 | 0.004 | 4 | 0.365746113 |
| 3 | 0.004 | 0.009 | 3 | -0.051 | 0.052 | 3 | -0.034 | 0.037 | 3 | 0.365978185 |
| 4 | 0.007 | 0.042 | 4 | -0.051 | 0.042 | 4 | -0.031 | 0.032 | 4 | 0.366210258 |
| 4 | -0.128 | 0.006 | 4 | -0.093 | 0.033 | 4 | 0.011 | 0.022 | 4 | 0.36644233 |
| 3 | -0.019 | 0.011 | 3 | -0.049 | 0.023 | 3 | -0.035 | 0.032 | 3 | 0.366674402 |
| 3 | -0.042 | 0.041 | 4 | -0.034 | 0.050 | 4 | 0.016 | 0.016 | 4 | 0.366906475 |
| 4 | 0.023 | 0.026 | 4 | -0.039 | 0.027 | 4 | -0.006 | 0.068 | 4 | 0.367138547 |
| 4 | -0.049 | 0.011 | 4 | -0.058 | 0.037 | 4 | -0.021 | 0.022 | 4 | 0.36737062 |
| 4 | 0.003 | 0.012 | 4 | -0.044 | 0.054 | 4 | -0.013 | 0.022 | 4 | 0.367602692 |
| 4 | -0.005 | 0.028 | 4 | -0.094 | 0.036 | 4 | -0.057 | 0.024 | 4 | 0.367834764 |
| 4 | -0.021 | 0.041 | 4 | -0.045 | 0.019 | 4 | -0.030 | 0.004 | 4 | 0.368066837 |
| 4 | 0.017 | 0.016 | 4 | -0.006 | 0.042 | 4 | -0.008 | 0.026 | 4 | 0.368298909 |
| 4 | -0.020 | 0.019 | 4 | 0.013 | 0.047 | 4 | -0.059 | 0.089 | 4 | 0.368530982 |
| 4 | -0.025 | 0.017 | 4 | -0.008 | 0.015 | 4 | 0.000 | 0.021 | 4 | 0.368763054 |
| 4 | 0.018 | 0.032 | 4 | -0.016 | 0.062 | 4 | 0.070 | 0.046 | 4 | 0.368995126 |
| 4 | -0.001 | 0.020 | 4 | -0.024 | 0.053 | 4 | -0.039 | 0.053 | 4 | 0.369227199 |
| 4 | -0.002 | 0.033 | 4 | 0.013 | 0.042 | 4 | -0.015 | 0.016 | 4 | 0.369459271 |
| 4 | -0.034 | 0.020 | 4 | -0.073 | 0.033 | 4 | -0.028 | 0.023 | 4 | 0.369691344 |
| 4 | 0.001 | 0.003 | 4 | -0.090 | 0.030 | 4 | -0.018 | 0.025 | 4 | 0.369923416 |
| 4 | -0.033 | 0.021 | 4 | 0.011 | 0.030 | 4 | -0.004 | 0.014 | 4 | 0.370155489 |
| 4 | -0.039 | 0.013 | 4 | -0.045 | 0.069 | 4 | 0.027 | 0.059 | 4 | 0.370387561 |
| 4 | 0.019 | 0.034 | 4 | -0.012 | 0.020 | 4 | -0.033 | 0.018 | 4 | 0.370619633 |
| 4 | 0.000 | 0.026 | 4 | -0.055 | 0.073 | 4 | -0.035 | 0.055 | 4 | 0.370851706 |
| 3 | 0.007 | 0.028 | 3 | -0.028 | 0.051 | 3 | -0.029 | 0.039 | 3 | 0.371083778 |
| 2 | -0.028 | 0.079 | 2 | -0.067 | 0.010 | 2 | -0.053 | 0.041 | 2 | 0.371315851 |
| 4 | -0.044 | 0.037 | 4 | -0.005 | 0.025 | 4 | -0.062 | 0.026 | 4 | 0.371547923 |
| 2 | -0.060 | 0.027 | 2 | -0.026 | 0.043 | 2 | 0.003 | 0.024 | 2 | 0.371779995 |
| | -0.028 | 0.017 | 2 | -0.064 | 0.003 | 2 | 0.026 | 0.004 | 2 | 0.372012068 |
| 4 | -0.009 | 0.026 | 4 | -0.015 | 0.056 | 4 | -0.025 | 0.029 | 4 | 0.37224414 |
| 4 | -0.016 | 0.030 | 4 | -0.033 | 0.044 | 4 | -0.004 | 0.027 | 4 | 0.372476213 |
| 4 | -0.004 | 0.027 | 4 | -0.028 | 0.060 | 4 | -0.033 | 0.043 | 4 | 0.372708285 |
| 4 | -0.013 | 0.025 | 4 | -0.004 | 0.038 | 4 | -0.025 | 0.017 | 4 | 0.372940357 |
| 4 | -0.031 | 0.042 | 4 | -0.019 | 0.056 | 4 | -0.031 | 0.043 | 4 | 0.37317243 |
| 4 | -0.023 | 0.020 | 4 | -0.018 | 0.052 | 4 | -0.005 | 0.045 | 4 | 0.373404502 |
| 4 | 0.006 | 0.037 | 4 | -0.012 | 0.047 | 4 | -0.014 | 0.060 | 4 | 0.373636575 |
| 4 | -0.015 | 0.029 | 4 | -0.028 | 0.058 | 4 | -0.012 | 0.045 | 4 | 0.373868647 |

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|---|---|---|---|---|---|---|---|---|---|
| 4 | -0.023 | 0.034 | 4 | -0.029 | 0.053 | 4 | -0.003 | 0.049 | 4 | 0.374100719 |
| 4 | -0.029 | 0.031 | 4 | -0.001 | 0.025 | 4 | -0.024 | 0.010 | 4 | 0.374332792 |
| 2 | -0.008 | 0.043 | 2 | -0.046 | 0.043 | 2 | 0.000 | 0.020 | 2 | 0.374564864 |
| 3 | 0.046 | 0.054 | 3 | 0.043 | 0.063 | 3 | -0.108 | 0.089 | 3 | 0.374796937 |
| 4 | -0.018 | 0.010 | 4 | -0.050 | 0.045 | 4 | -0.004 | 0.016 | 4 | 0.375029009 |
| 4 | -0.053 | 0.021 | 4 | 0.009 | 0.020 | 4 | -0.024 | 0.034 | 4 | 0.375261081 |
| 4 | -0.021 | 0.022 | 4 | -0.008 | 0.018 | 4 | -0.012 | 0.013 | 4 | 0.375493154 |
| 4 | 0.017 | 0.016 | 4 | -0.017 | 0.018 | 4 | -0.033 | 0.014 | 4 | 0.375725226 |
| 4 | -0.022 | 0.048 | 4 | -0.036 | 0.071 | 4 | -0.044 | 0.050 | 4 | 0.375957299 |
| 4 | 0.025 | 0.015 | 4 | -0.009 | 0.022 | 4 | -0.016 | 0.010 | 4 | 0.376189371 |
| 4 | -0.018 | 0.020 | 4 | -0.015 | 0.038 | 4 | -0.014 | 0.017 | 4 | 0.376421443 |
| 4 | -0.009 | 0.017 | 4 | -0.039 | 0.053 | 4 | 0.004 | 0.026 | 4 | 0.376653516 |
| 4 | -0.008 | 0.020 | 4 | -0.029 | 0.050 | 4 | -0.021 | 0.025 | 4 | 0.376885588 |
| 4 | 0.011 | 0.046 | 4 | -0.015 | 0.067 | 4 | -0.012 | 0.043 | 4 | 0.377117661 |
| 4 | -0.003 | 0.024 | 4 | -0.040 | 0.015 | 4 | 0.008 | 0.010 | 4 | 0.377349733 |
| 4 | -0.013 | 0.027 | 4 | -0.076 | 0.070 | 4 | -0.028 | 0.026 | 4 | 0.377581806 |
| 2 | -0.033 | 0.016 | 3 | -0.104 | 0.019 | 3 | 0.121 | 0.028 | 3 | 0.377813878 |
| 4 | 0.021 | 0.031 | 4 | 0.007 | 0.039 | 4 | -0.007 | 0.019 | 4 | 0.37804595 |
| 4 | -0.036 | 0.020 | 4 | -0.038 | 0.039 | 4 | -0.006 | 0.023 | 4 | 0.378278023 |
| 4 | -0.003 | 0.012 | 4 | 0.074 | 0.038 | 4 | -0.159 | 0.173 | 4 | 0.378510095 |
| 4 | -0.016 | 0.012 | 4 | 0.012 | 0.029 | 4 | -0.003 | 0.011 | 4 | 0.378742168 |
| 4 | 0.004 | 0.025 | 4 | -0.036 | 0.044 | 4 | -0.039 | 0.022 | 4 | 0.37897424 |
| | -0.065 | 0.008 | 2 | -0.094 | 0.000 | 2 | 0.095 | 0.020 | 2 | 0.379206312 |
| 4 | 0.010 | 0.017 | 4 | 0.015 | 0.019 | 4 | 0.013 | 0.015 | 4 | 0.379438385 |
| 4 | -0.020 | 0.034 | 4 | -0.033 | 0.054 | 4 | -0.036 | 0.027 | 4 | 0.379670457 |
| 3 | -0.041 | 0.048 | 4 | -0.011 | 0.042 | 4 | -0.031 | 0.055 | 4 | 0.37990253 |
| 4 | 0.016 | 0.026 | 4 | -0.044 | 0.010 | 4 | -0.005 | 0.020 | 4 | 0.380134602 |
| 4 | -0.033 | 0.023 | 4 | 0.008 | 0.032 | 4 | 0.007 | 0.021 | 4 | 0.380366674 |
| 4 | -0.015 | 0.033 | 4 | -0.003 | 0.033 | 4 | -0.054 | 0.052 | 4 | 0.380598747 |
| 4 | -0.035 | 0.023 | 4 | 0.023 | 0.043 | 4 | -0.044 | 0.022 | 4 | 0.380830819 |
| 4 | 0.009 | 0.031 | 4 | -0.031 | 0.046 | 4 | -0.028 | 0.036 | 4 | 0.381062892 |
| 4 | 0.012 | 0.037 | 4 | -0.041 | 0.016 | 4 | -0.011 | 0.036 | 4 | 0.381294964 |
| 4 | -0.042 | 0.019 | 4 | -0.023 | 0.031 | 4 | 0.005 | 0.013 | 4 | 0.381527036 |
| 4 | -0.035 | 0.034 | 4 | -0.018 | 0.032 | 4 | 0.014 | 0.014 | 4 | 0.381759109 |
| 4 | -0.043 | 0.043 | 4 | -0.072 | 0.041 | 4 | -0.008 | 0.007 | 4 | 0.381991181 |
| 4 | 0.008 | 0.017 | 4 | -0.023 | 0.052 | 4 | 0.000 | 0.021 | 4 | 0.382223254 |
| 4 | -0.032 | 0.025 | 4 | 0.020 | 0.046 | 4 | -0.021 | 0.012 | 4 | 0.382455326 |
| 4 | 0.006 | 0.035 | 4 | -0.005 | 0.064 | 4 | 0.000 | 0.048 | 4 | 0.382687398 |
| 4 | -0.004 | 0.044 | 4 | -0.041 | 0.039 | 4 | -0.027 | 0.026 | 4 | 0.382919471 |
| 4 | 0.014 | 0.041 | 4 | -0.034 | 0.063 | 4 | -0.029 | 0.025 | 4 | 0.383151543 |
| 4 | -0.063 | 0.025 | 4 | -0.065 | 0.013 | 4 | -0.035 | 0.030 | 4 | 0.383383616 |
| 4 | 0.017 | 0.020 | 4 | -0.023 | 0.025 | 4 | -0.007 | 0.021 | 4 | 0.383615688 |
| 4 | 0.011 | 0.028 | 4 | -0.039 | 0.050 | 4 | -0.050 | 0.029 | 4 | 0.383847761 |
| 4 | -0.013 | 0.021 | 4 | -0.024 | 0.036 | 4 | -0.023 | 0.013 | 4 | 0.384079833 |
| 4 | 0.028 | 0.019 | 4 | -0.023 | 0.059 | 4 | -0.027 | 0.003 | 4 | 0.384311905 |
| 3 | -0.012 | 0.012 | 3 | 0.014 | 0.009 | 3 | -0.043 | 0.013 | 3 | 0.384543978 |
| 4 | -0.020 | 0.013 | 4 | -0.059 | 0.056 | 4 | -0.010 | 0.062 | 4 | 0.38477605 |
| 2 | 0.010 | 0.074 | 2 | -0.019 | 0.093 | 2 | -0.024 | 0.048 | 2 | 0.385008123 |
| 4 | -0.017 | 0.012 | 4 | -0.025 | 0.044 | 4 | 0.006 | 0.020 | 4 | 0.385240195 |
| 4 | -0.009 | 0.027 | 4 | -0.018 | 0.047 | 4 | -0.056 | 0.016 | 4 | 0.385472267 |
| 4 | -0.013 | 0.019 | 4 | -0.012 | 0.024 | 4 | -0.012 | 0.030 | 4 | 0.38570434 |
| 4 | -0.024 | 0.034 | 4 | -0.018 | 0.038 | 4 | -0.015 | 0.017 | 4 | 0.385936412 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 4 | -0.009 | 0.036 | 4 | -0.043 | 0.047 | 4 | -0.007 | 0.031 | 4 | 0.386168485 |
| 4 | -0.017 | 0.045 | 4 | -0.039 | 0.034 | 4 | -0.050 | 0.038 | 4 | 0.386400557 |
| 4 | -0.015 | 0.017 | 4 | -0.026 | 0.044 | 4 | 0.003 | 0.025 | 4 | 0.386632629 |
| 2 | -0.003 | 0.018 | 2 | -0.020 | 0.045 | 2 | -0.017 | 0.003 | 2 | 0.386864702 |
| 4 | -0.049 | 0.024 | 4 | -0.031 | 0.039 | 4 | -0.045 | 0.031 | 4 | 0.387096774 |
| 2 | 0.030 | 0.022 | 2 | 0.007 | 0.020 | 2 | -0.094 | 0.053 | 2 | 0.387328847 |
| 4 | -0.024 | 0.019 | 4 | -0.032 | 0.037 | 4 | -0.025 | 0.016 | 4 | 0.387560919 |
| 4 | 0.008 | 0.014 | 4 | -0.021 | 0.051 | 4 | -0.001 | 0.028 | 4 | 0.387792991 |
| | -0.067 | 0.001 | 2 | 0.017 | 0.041 | 2 | -0.012 | 0.011 | 2 | 0.388025064 |
| 4 | -0.028 | 0.034 | 4 | -0.034 | 0.046 | 4 | -0.015 | 0.011 | 4 | 0.388257136 |
| 4 | -0.044 | 0.028 | 4 | -0.023 | 0.028 | 4 | -0.021 | 0.019 | 4 | 0.388489209 |
| 4 | -0.005 | 0.028 | 4 | -0.004 | 0.036 | 4 | -0.017 | 0.038 | 4 | 0.388721281 |
| 3 | -0.014 | 0.026 | 4 | 0.004 | 0.036 | 4 | 0.009 | 0.010 | 4 | 0.388953353 |
| 4 | 0.010 | 0.054 | 4 | 0.022 | 0.069 | 4 | -0.034 | 0.017 | 4 | 0.389185426 |
| 4 | -0.008 | 0.020 | 4 | -0.004 | 0.015 | 4 | -0.015 | 0.020 | 4 | 0.389417498 |
| 2 | -0.080 | 0.031 | 3 | -0.088 | 0.082 | 3 | 0.078 | 0.072 | 3 | 0.389649571 |
| 4 | -0.086 | 0.009 | 4 | -0.023 | 0.062 | 4 | 0.032 | 0.052 | 4 | 0.389881643 |
| 2 | 0.064 | 0.027 | 2 | -0.090 | 0.005 | 2 | -0.052 | 0.017 | 2 | 0.390113715 |
| 4 | -0.019 | 0.028 | 4 | -0.026 | 0.047 | 4 | -0.016 | 0.027 | 4 | 0.390345788 |
| 4 | -0.042 | 0.029 | 4 | -0.071 | 0.015 | 4 | -0.064 | 0.025 | 4 | 0.39057786 |
| 4 | 0.000 | 0.011 | 4 | 0.012 | 0.037 | 4 | -0.038 | 0.042 | 4 | 0.390809933 |
| 4 | -0.030 | 0.024 | 4 | -0.029 | 0.032 | 4 | -0.028 | 0.029 | 4 | 0.391042005 |
| 3 | -0.001 | 0.043 | 3 | 0.048 | 0.046 | 3 | 0.030 | 0.024 | 3 | 0.391274078 |
| 2 | 0.014 | 0.063 | 2 | -0.061 | 0.016 | 2 | 0.041 | 0.056 | 2 | 0.39150615 |
| 3 | -0.039 | 0.046 | 4 | -0.054 | 0.024 | 4 | 0.001 | 0.020 | 4 | 0.391738222 |
| 4 | -0.030 | 0.009 | 4 | -0.027 | 0.040 | 4 | -0.005 | 0.033 | 4 | 0.391970295 |
| 4 | 0.010 | 0.006 | 4 | -0.022 | 0.046 | 4 | -0.011 | 0.032 | 4 | 0.392202367 |
| 4 | -0.070 | 0.024 | 4 | -0.049 | 0.041 | 4 | -0.034 | 0.037 | 4 | 0.39243444 |
| 4 | 0.006 | 0.016 | 4 | -0.039 | 0.046 | 4 | -0.011 | 0.022 | 4 | 0.392666512 |
| 4 | 0.026 | 0.022 | 4 | -0.018 | 0.059 | 4 | -0.001 | 0.073 | 4 | 0.392898584 |
| 4 | -0.018 | 0.059 | 4 | -0.015 | 0.050 | 4 | -0.038 | 0.038 | 4 | 0.393130657 |
| 4 | -0.022 | 0.016 | 4 | -0.006 | 0.026 | 4 | -0.026 | 0.013 | 4 | 0.393362729 |
| 4 | -0.005 | 0.043 | 4 | -0.073 | 0.062 | 4 | -0.007 | 0.045 | 4 | 0.393594802 |
| 2 | 0.006 | 0.019 | 2 | -0.041 | 0.022 | 2 | -0.028 | 0.009 | 2 | 0.393826874 |
| 4 | -0.029 | 0.009 | 4 | -0.052 | 0.074 | 4 | -0.012 | 0.039 | 4 | 0.394058946 |
| 4 | -0.016 | 0.034 | 4 | -0.022 | 0.019 | 4 | -0.015 | 0.006 | 4 | 0.394291019 |
| 4 | -0.028 | 0.017 | 4 | -0.019 | 0.043 | 4 | -0.052 | 0.032 | 4 | 0.394523091 |
| | -0.215 | 0.049 | 3 | 0.039 | 0.039 | 3 | 0.116 | 0.071 | 3 | 0.394755164 |
| 3 | 0.003 | 0.023 | 3 | -0.041 | 0.037 | 3 | 0.060 | 0.036 | 3 | 0.394987236 |
| 4 | -0.016 | 0.018 | 4 | -0.037 | 0.032 | 4 | -0.051 | 0.069 | 4 | 0.395219308 |
| 2 | -0.091 | 0.058 | 2 | -0.024 | 0.020 | 2 | -0.026 | 0.013 | 2 | 0.395451381 |
| 4 | -0.037 | 0.022 | 4 | -0.043 | 0.082 | 4 | -0.041 | 0.062 | 4 | 0.395683453 |
| 4 | -0.025 | 0.057 | 4 | -0.030 | 0.065 | 4 | -0.004 | 0.013 | 4 | 0.395915526 |
| 4 | -0.018 | 0.014 | 4 | -0.009 | 0.029 | 4 | -0.005 | 0.027 | 4 | 0.396147598 |
| 4 | 0.025 | 0.042 | 4 | -0.082 | 0.068 | 4 | 0.028 | 0.050 | 4 | 0.39637967 |
| 4 | -0.003 | 0.015 | 4 | -0.020 | 0.060 | 4 | -0.003 | 0.013 | 4 | 0.396611743 |
| 4 | 0.004 | 0.037 | 4 | -0.020 | 0.034 | 4 | -0.001 | 0.020 | 4 | 0.396843815 |
| 3 | 0.003 | 0.012 | 3 | 0.003 | 0.017 | 3 | -0.025 | 0.015 | 3 | 0.397075888 |
| 4 | -0.010 | 0.053 | 4 | -0.016 | 0.046 | 4 | -0.020 | 0.016 | 4 | 0.39730796 |
| 4 | 0.050 | 0.016 | 4 | -0.046 | 0.024 | 4 | -0.050 | 0.017 | 4 | 0.397540032 |
| 4 | -0.015 | 0.049 | 4 | -0.003 | 0.048 | 4 | -0.001 | 0.028 | 4 | 0.397772105 |
| 4 | -0.011 | 0.020 | 4 | 0.003 | 0.007 | 4 | -0.020 | 0.033 | 4 | 0.398004177 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 3 | -0.003 | 0.023 | 4 | -0.003 | 0.058 | 4 | -0.115 | 0.169 | 4 | 0.39823625 |
| 2 | -0.002 | 0.050 | 2 | 0.031 | 0.046 | 2 | -0.010 | 0.014 | 2 | 0.398468322 |
| 4 | -0.061 | 0.067 | 4 | -0.097 | 0.054 | 4 | 0.035 | 0.061 | 4 | 0.398700395 |
| 2 | -0.026 | 0.018 | 2 | -0.027 | 0.018 | 2 | -0.015 | 0.006 | 2 | 0.398932467 |
| | -0.044 | 0.015 | 2 | -0.013 | 0.011 | 2 | -0.002 | 0.016 | 2 | 0.399164539 |
| 2 | -0.036 | 0.016 | 2 | -0.035 | 0.021 | 2 | -0.037 | 0.019 | 2 | 0.399396612 |
| 4 | -0.009 | 0.037 | 4 | -0.046 | 0.034 | 4 | -0.040 | 0.020 | 4 | 0.399628684 |
| 4 | 0.001 | 0.027 | 4 | -0.047 | 0.033 | 4 | -0.009 | 0.018 | 4 | 0.399860757 |
| 4 | 0.009 | 0.005 | 4 | -0.047 | 0.043 | 4 | -0.028 | 0.044 | 4 | 0.400092829 |
| 4 | 0.000 | 0.024 | 4 | -0.012 | 0.065 | 4 | -0.027 | 0.045 | 4 | 0.400324901 |
| 4 | -0.036 | 0.006 | 4 | -0.029 | 0.036 | 4 | 0.010 | 0.011 | 4 | 0.400556974 |
| 4 | -0.024 | 0.023 | 4 | -0.040 | 0.011 | 4 | -0.021 | 0.026 | 4 | 0.400789046 |
| 4 | -0.021 | 0.032 | 4 | -0.031 | 0.033 | 4 | -0.010 | 0.013 | 4 | 0.401021119 |
| 2 | -0.007 | 0.031 | 2 | -0.020 | 0.041 | 2 | 0.003 | 0.021 | 2 | 0.401253191 |
| 4 | -0.007 | 0.008 | 4 | -0.044 | 0.062 | 4 | -0.033 | 0.040 | 4 | 0.401485263 |
| 4 | -0.010 | 0.030 | 4 | -0.045 | 0.044 | 4 | -0.023 | 0.036 | 4 | 0.401717336 |
| 4 | -0.019 | 0.016 | 4 | -0.017 | 0.037 | 4 | -0.008 | 0.020 | 4 | 0.401949408 |
| 4 | -0.011 | 0.021 | 4 | -0.036 | 0.037 | 4 | -0.028 | 0.021 | 4 | 0.402181481 |
| 2 | -0.007 | 0.015 | 2 | -0.020 | 0.039 | 2 | -0.011 | 0.042 | 2 | 0.402413553 |
| 4 | -0.040 | 0.034 | 4 | 0.003 | 0.050 | 4 | -0.035 | 0.015 | 4 | 0.402645625 |
| 4 | 0.034 | 0.029 | 4 | -0.006 | 0.031 | 4 | -0.064 | 0.025 | 4 | 0.402877698 |
| 4 | 0.008 | 0.022 | 4 | 0.000 | 0.030 | 4 | -0.030 | 0.027 | 4 | 0.40310977 |
| 4 | -0.042 | 0.032 | 4 | -0.017 | 0.100 | 4 | -0.021 | 0.076 | 4 | 0.403341843 |
| 4 | 0.000 | 0.037 | 4 | -0.025 | 0.064 | 4 | -0.013 | 0.013 | 4 | 0.403573915 |
| 4 | -0.011 | 0.020 | 4 | -0.070 | 0.040 | 4 | -0.024 | 0.024 | 4 | 0.403805987 |
| 4 | -0.005 | 0.026 | 4 | -0.011 | 0.078 | 4 | -0.051 | 0.042 | 4 | 0.40403806 |
| 4 | -0.023 | 0.034 | 4 | -0.025 | 0.055 | 4 | 0.002 | 0.034 | 4 | 0.404270132 |
| 4 | -0.028 | 0.051 | 4 | -0.037 | 0.074 | 4 | -0.012 | 0.028 | 4 | 0.404502205 |
| 4 | -0.026 | 0.039 | 4 | -0.042 | 0.096 | 4 | -0.008 | 0.076 | 4 | 0.404734277 |
| 4 | -0.039 | 0.027 | 4 | -0.038 | 0.051 | 4 | -0.003 | 0.043 | 4 | 0.40496635 |
| 4 | 0.011 | 0.025 | 4 | -0.022 | 0.013 | 4 | -0.005 | 0.040 | 4 | 0.405198422 |
| 3 | -0.040 | 0.036 | 4 | -0.040 | 0.047 | 4 | 0.004 | 0.021 | 4 | 0.405430494 |
| 4 | 0.000 | 0.025 | 4 | -0.034 | 0.067 | 4 | -0.030 | 0.048 | 4 | 0.405662567 |
| 4 | -0.022 | 0.031 | 4 | -0.048 | 0.052 | 4 | -0.019 | 0.018 | 4 | 0.405894639 |
| 3 | -0.025 | 0.031 | 4 | 0.020 | 0.019 | 4 | -0.001 | 0.009 | 4 | 0.406126712 |
| 4 | -0.025 | 0.012 | 4 | -0.033 | 0.029 | 4 | 0.011 | 0.015 | 4 | 0.406358784 |
| 4 | -0.014 | 0.012 | 4 | -0.017 | 0.043 | 4 | 0.013 | 0.024 | 4 | 0.406590856 |
| 4 | 0.012 | 0.033 | 4 | -0.035 | 0.052 | 4 | -0.041 | 0.058 | 4 | 0.406822929 |
| 3 | -0.013 | 0.056 | 4 | -0.044 | 0.053 | 4 | 0.000 | 0.059 | 4 | 0.407055001 |
| 2 | 0.021 | 0.012 | 2 | -0.040 | 0.040 | 2 | -0.005 | 0.008 | 2 | 0.407287074 |
| 4 | -0.053 | 0.018 | 4 | -0.040 | 0.039 | 4 | -0.030 | 0.023 | 4 | 0.407519146 |
| 4 | -0.018 | 0.030 | 4 | -0.015 | 0.044 | 4 | -0.013 | 0.050 | 4 | 0.407751218 |
| 4 | -0.025 | 0.020 | 4 | -0.143 | 0.050 | 4 | -0.029 | 0.025 | 4 | 0.407983291 |
| 3 | 0.020 | 0.032 | 4 | -0.077 | 0.072 | 4 | -0.009 | 0.054 | 4 | 0.408215363 |
| 4 | 0.007 | 0.008 | 4 | -0.030 | 0.060 | 4 | -0.052 | 0.044 | 4 | 0.408447436 |
| 4 | -0.010 | 0.042 | 4 | -0.012 | 0.063 | 4 | -0.016 | 0.036 | 4 | 0.408679508 |
| 4 | 0.018 | 0.034 | 4 | -0.042 | 0.053 | 4 | -0.029 | 0.046 | 4 | 0.40891158 |
| 4 | -0.022 | 0.036 | 4 | -0.022 | 0.028 | 4 | -0.020 | 0.030 | 4 | 0.409143653 |
| 4 | -0.013 | 0.033 | 4 | -0.036 | 0.044 | 4 | -0.026 | 0.031 | 4 | 0.409375725 |
| 4 | -0.003 | 0.030 | 4 | -0.033 | 0.052 | 4 | 0.003 | 0.035 | 4 | 0.409607798 |
| 4 | -0.040 | 0.020 | 4 | -0.033 | 0.029 | 4 | -0.035 | 0.038 | 4 | 0.40983987 |
| 4 | -0.024 | 0.038 | 4 | -0.043 | 0.046 | 4 | -0.047 | 0.032 | 4 | 0.410071942 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 4 | -0.007 | 0.050 | 4 | -0.033 | 0.052 | 4 | -0.035 | 0.067 | 4 | 0.410304015 |
| 4 | -0.039 | 0.036 | 4 | -0.056 | 0.053 | 4 | -0.032 | 0.025 | 4 | 0.410536087 |
| 4 | -0.005 | 0.012 | 4 | -0.054 | 0.030 | 4 | -0.033 | 0.027 | 4 | 0.41076816 |
| 4 | -0.024 | 0.012 | 4 | -0.015 | 0.039 | 4 | -0.029 | 0.036 | 4 | 0.411000232 |
| 2 | 0.019 | 0.018 | 2 | -0.063 | 0.025 | 2 | -0.071 | 0.002 | 2 | 0.411232304 |
| 4 | -0.036 | 0.029 | 4 | -0.039 | 0.054 | 4 | -0.038 | 0.031 | 4 | 0.411464377 |
| 4 | -0.008 | 0.038 | 4 | -0.049 | 0.068 | 4 | -0.009 | 0.048 | 4 | 0.411696449 |
| 4 | -0.021 | 0.029 | 4 | -0.037 | 0.101 | 4 | -0.050 | 0.067 | 4 | 0.411928522 |
| 4 | 0.005 | 0.024 | 4 | -0.041 | 0.045 | 4 | -0.020 | 0.025 | 4 | 0.412160594 |
| 4 | -0.022 | 0.035 | 4 | -0.043 | 0.049 | 4 | -0.045 | 0.028 | 4 | 0.412392667 |
| 4 | -0.019 | 0.041 | 4 | -0.011 | 0.059 | 4 | -0.004 | 0.045 | 4 | 0.412624739 |
| 4 | -0.005 | 0.007 | 4 | -0.002 | 0.033 | 4 | -0.026 | 0.012 | 4 | 0.412856811 |
| 4 | -0.016 | 0.028 | 4 | -0.015 | 0.028 | 4 | -0.013 | 0.014 | 4 | 0.413088884 |
| 3 | -0.036 | 0.011 | 3 | -0.051 | 0.030 | 3 | -0.038 | 0.024 | 3 | 0.413320956 |
| 4 | 0.054 | 0.045 | 4 | 0.008 | 0.021 | 4 | -0.030 | 0.023 | 4 | 0.413553029 |
| 4 | -0.018 | 0.026 | 4 | -0.053 | 0.047 | 4 | -0.027 | 0.025 | 4 | 0.413785101 |
| 3 | -0.011 | 0.007 | 4 | -0.009 | 0.011 | 4 | -0.046 | 0.042 | 4 | 0.414017173 |
| 3 | 0.023 | 0.033 | 3 | -0.054 | 0.073 | 3 | -0.022 | 0.010 | 3 | 0.414249246 |
| 3 | 0.001 | 0.032 | 3 | -0.050 | 0.024 | 3 | -0.022 | 0.025 | 3 | 0.414481318 |
| 4 | 0.019 | 0.016 | 4 | -0.017 | 0.066 | 4 | 0.007 | 0.028 | 4 | 0.414713391 |
| 4 | 0.013 | 0.019 | 4 | -0.021 | 0.051 | 4 | -0.020 | 0.050 | 4 | 0.414945463 |
| 2 | -0.023 | 0.032 | 4 | 0.008 | 0.044 | 4 | -0.022 | 0.030 | 4 | 0.415177535 |
| 4 | 0.003 | 0.028 | 4 | -0.027 | 0.047 | 4 | -0.018 | 0.025 | 4 | 0.415409608 |
| 2 | 0.020 | 0.010 | 2 | -0.102 | 0.046 | 2 | -0.036 | 0.033 | 2 | 0.41564168 |
| 3 | -0.020 | 0.005 | 3 | 0.004 | 0.039 | 3 | -0.023 | 0.058 | 3 | 0.415873753 |
| 4 | -0.047 | 0.010 | 4 | -0.034 | 0.033 | 4 | -0.028 | 0.019 | 4 | 0.416105825 |
| 4 | -0.042 | 0.027 | 4 | -0.020 | 0.052 | 4 | 0.010 | 0.039 | 4 | 0.416337897 |
| 4 | -0.049 | 0.009 | 4 | -0.097 | 0.039 | 4 | 0.091 | 0.025 | 4 | 0.41656997 |
| 4 | -0.027 | 0.021 | 4 | -0.033 | 0.038 | 4 | -0.023 | 0.033 | 4 | 0.416802042 |
| 4 | 0.001 | 0.016 | 4 | -0.017 | 0.037 | 4 | -0.028 | 0.039 | 4 | 0.417034115 |
| 4 | -0.037 | 0.036 | 4 | -0.037 | 0.058 | 4 | -0.044 | 0.043 | 4 | 0.417266187 |
| 3 | -0.099 | 0.049 | 4 | 0.003 | 0.018 | 4 | -0.033 | 0.021 | 4 | 0.417498259 |
| 4 | 0.056 | 0.031 | 4 | -0.045 | 0.030 | 4 | -0.066 | 0.025 | 4 | 0.417730332 |
| 2 | -0.005 | 0.027 | 2 | -0.044 | 0.040 | 2 | 0.017 | 0.030 | 2 | 0.417962404 |
| 3 | 0.011 | 0.054 | 3 | -0.050 | 0.006 | 3 | -0.028 | 0.016 | 3 | 0.418194477 |
| | -0.016 | 0.008 | 2 | 0.000 | 0.069 | 2 | -0.038 | 0.005 | 2 | 0.418426549 |
| 4 | -0.035 | 0.035 | 4 | -0.031 | 0.054 | 4 | -0.018 | 0.050 | 4 | 0.418658621 |
| 4 | -0.031 | 0.008 | 4 | -0.011 | 0.045 | 4 | -0.057 | 0.050 | 4 | 0.418890694 |
| 4 | 0.001 | 0.031 | 4 | -0.049 | 0.025 | 4 | -0.011 | 0.008 | 4 | 0.419122766 |
| 4 | -0.049 | 0.020 | 4 | 0.012 | 0.020 | 4 | 0.016 | 0.006 | 4 | 0.419354839 |
| 4 | -0.009 | 0.017 | 4 | 0.024 | 0.041 | 4 | -0.032 | 0.068 | 4 | 0.419586911 |
| 4 | -0.025 | 0.017 | 4 | 0.005 | 0.027 | 4 | -0.043 | 0.014 | 4 | 0.419818984 |
| 4 | -0.010 | 0.030 | 4 | -0.008 | 0.036 | 4 | -0.028 | 0.028 | 4 | 0.420051056 |
| 4 | -0.003 | 0.034 | 4 | -0.014 | 0.050 | 4 | -0.036 | 0.039 | 4 | 0.420283128 |
| 2 | -0.033 | 0.087 | 2 | -0.030 | 0.005 | 2 | -0.029 | 0.013 | 2 | 0.420515201 |
| 4 | -0.017 | 0.006 | 4 | -0.022 | 0.055 | 4 | -0.037 | 0.032 | 4 | 0.420747273 |
| 3 | 0.009 | 0.025 | 3 | -0.027 | 0.026 | 3 | -0.003 | 0.007 | 3 | 0.420979346 |
| 4 | 0.006 | 0.019 | 4 | -0.029 | 0.063 | 4 | -0.013 | 0.038 | 4 | 0.421211418 |
| 4 | -0.024 | 0.032 | 4 | 0.000 | 0.034 | 4 | -0.001 | 0.039 | 4 | 0.42144349 |
| 2 | -0.019 | 0.067 | 2 | -0.046 | 0.012 | 2 | -0.035 | 0.009 | 2 | 0.421675563 |
| 4 | -0.021 | 0.024 | 4 | -0.015 | 0.050 | 4 | -0.018 | 0.026 | 4 | 0.421907635 |
| 4 | -0.011 | 0.061 | 4 | -0.013 | 0.073 | 4 | -0.015 | 0.058 | 4 | 0.422139708 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 4 | -0.004 | 0.023 | 4 | -0.023 | 0.038 | 4 | -0.028 | 0.016 | 4 | 0.42237178 |
| 4 | -0.026 | 0.015 | 4 | -0.058 | 0.035 | 4 | -0.018 | 0.020 | 4 | 0.422603852 |
| 4 | 0.003 | 0.029 | 4 | -0.048 | 0.044 | 4 | -0.016 | 0.015 | 4 | 0.422835925 |
| 4 | -0.026 | 0.025 | 4 | -0.021 | 0.045 | 4 | -0.015 | 0.043 | 4 | 0.423067997 |
| 3 | -0.043 | 0.021 | 4 | -0.069 | 0.020 | 4 | -0.019 | 0.034 | 4 | 0.42330007 |
| 3 | -0.053 | 0.022 | 4 | -0.066 | 0.048 | 4 | 0.011 | 0.055 | 4 | 0.423532142 |
| 4 | -0.005 | 0.033 | 4 | 0.001 | 0.033 | 4 | -0.050 | 0.024 | 4 | 0.423764214 |
| 4 | -0.029 | 0.040 | 4 | 0.008 | 0.037 | 4 | 0.000 | 0.017 | 4 | 0.423996287 |
| 3 | 0.022 | 0.023 | 4 | 0.014 | 0.028 | 4 | -0.074 | 0.014 | 4 | 0.424228359 |
| 4 | -0.039 | 0.041 | 4 | -0.028 | 0.057 | 4 | -0.015 | 0.039 | 4 | 0.424460432 |
| 4 | 0.009 | 0.018 | 4 | -0.017 | 0.035 | 4 | -0.043 | 0.103 | 4 | 0.424692504 |
| 4 | -0.005 | 0.017 | 4 | -0.013 | 0.059 | 4 | -0.025 | 0.043 | 4 | 0.424924576 |
| 4 | -0.015 | 0.025 | 4 | -0.033 | 0.018 | 4 | -0.012 | 0.021 | 4 | 0.425156649 |
| 4 | -0.010 | 0.036 | 4 | -0.023 | 0.041 | 4 | -0.021 | 0.014 | 4 | 0.425388721 |
| 4 | -0.007 | 0.036 | 4 | -0.011 | 0.006 | 4 | 0.013 | 0.046 | 4 | 0.425620794 |
| 4 | -0.014 | 0.010 | 4 | -0.022 | 0.016 | 4 | -0.021 | 0.013 | 4 | 0.425852866 |
| 4 | -0.022 | 0.024 | 4 | -0.030 | 0.054 | 4 | -0.017 | 0.062 | 4 | 0.426084939 |
| 4 | 0.016 | 0.029 | 4 | -0.024 | 0.058 | 4 | -0.023 | 0.046 | 4 | 0.426317011 |
| 3 | -0.040 | 0.026 | 3 | -0.013 | 0.011 | 3 | -0.015 | 0.029 | 3 | 0.426549083 |
| 3 | -0.062 | 0.036 | 4 | -0.032 | 0.057 | 4 | 0.001 | 0.028 | 4 | 0.426781156 |
| 2 | -0.043 | 0.048 | 2 | -0.063 | 0.005 | 2 | -0.038 | 0.020 | 2 | 0.427013228 |
| 3 | 0.079 | 0.034 | 4 | -0.083 | 0.021 | 4 | -0.074 | 0.019 | 4 | 0.427245301 |
| 4 | -0.016 | 0.015 | 4 | -0.068 | 0.053 | 4 | -0.022 | 0.029 | 4 | 0.427477373 |
| 2 | -0.002 | 0.002 | 2 | -0.042 | 0.006 | 2 | -0.013 | 0.000 | 2 | 0.427709445 |
| 4 | 0.003 | 0.030 | 4 | -0.014 | 0.060 | 4 | -0.022 | 0.031 | 4 | 0.427941518 |
| 4 | -0.008 | 0.013 | 4 | 0.013 | 0.031 | 4 | 0.002 | 0.010 | 4 | 0.42817359 |
| 4 | 0.000 | 0.033 | 4 | -0.026 | 0.008 | 4 | -0.024 | 0.019 | 4 | 0.428405663 |
| 4 | -0.004 | 0.032 | 4 | -0.058 | 0.077 | 4 | 0.011 | 0.016 | 4 | 0.428637735 |
| 4 | -0.030 | 0.038 | 4 | 0.009 | 0.034 | 4 | -0.010 | 0.038 | 4 | 0.428869807 |
| 2 | -0.016 | 0.032 | 2 | -0.045 | 0.046 | 2 | -0.040 | 0.050 | 2 | 0.42910188 |
| 2 | -0.041 | 0.042 | 3 | -0.019 | 0.003 | 3 | -0.031 | 0.015 | 3 | 0.429333952 |
| 4 | -0.010 | 0.023 | 4 | -0.055 | 0.057 | 4 | -0.013 | 0.041 | 4 | 0.429566025 |
| 4 | -0.021 | 0.028 | 4 | -0.019 | 0.044 | 4 | 0.000 | 0.046 | 4 | 0.429798097 |
| 4 | -0.018 | 0.024 | 4 | -0.043 | 0.059 | 4 | -0.007 | 0.015 | 4 | 0.430030169 |
| 4 | -0.002 | 0.043 | 4 | -0.046 | 0.047 | 4 | 0.015 | 0.022 | 4 | 0.430262242 |
| 4 | -0.017 | 0.029 | 4 | -0.024 | 0.063 | 4 | 0.002 | 0.025 | 4 | 0.430494314 |
| 4 | -0.004 | 0.021 | 4 | -0.057 | 0.049 | 4 | 0.006 | 0.038 | 4 | 0.430726387 |
| 4 | 0.009 | 0.017 | 4 | 0.003 | 0.045 | 4 | -0.054 | 0.026 | 4 | 0.430958459 |
| 4 | -0.031 | 0.019 | 4 | 0.005 | 0.044 | 4 | -0.004 | 0.027 | 4 | 0.431190531 |
| 4 | -0.015 | 0.058 | 4 | -0.033 | 0.111 | 4 | -0.016 | 0.048 | 4 | 0.431422604 |
| 3 | -0.081 | 0.061 | 4 | -0.078 | 0.033 | 4 | 0.059 | 0.057 | 4 | 0.431654676 |
| 4 | -0.045 | 0.021 | 4 | 0.007 | 0.030 | 4 | -0.051 | 0.021 | 4 | 0.431886749 |
| 3 | 0.014 | 0.050 | 4 | -0.063 | 0.068 | 4 | -0.016 | 0.043 | 4 | 0.432118821 |
| 4 | -0.029 | 0.018 | 4 | -0.012 | 0.040 | 4 | -0.015 | 0.055 | 4 | 0.432350893 |
| 4 | 0.002 | 0.025 | 4 | -0.010 | 0.043 | 4 | -0.031 | 0.011 | 4 | 0.432582966 |
| 4 | 0.000 | 0.026 | 4 | 0.008 | 0.023 | 4 | 0.004 | 0.025 | 4 | 0.432815038 |
| 4 | 0.000 | 0.031 | 4 | -0.031 | 0.050 | 4 | -0.009 | 0.030 | 4 | 0.433047111 |
| 4 | 0.002 | 0.036 | 4 | -0.016 | 0.040 | 4 | -0.019 | 0.032 | 4 | 0.433279183 |
| 4 | -0.024 | 0.018 | 4 | -0.030 | 0.037 | 4 | -0.028 | 0.018 | 4 | 0.433511256 |
| 4 | -0.016 | 0.017 | 4 | -0.070 | 0.046 | 4 | -0.002 | 0.015 | 4 | 0.433743328 |
| 4 | -0.023 | 0.027 | 4 | -0.051 | 0.023 | 4 | -0.043 | 0.023 | 4 | 0.4339754 |
| 3 | 0.038 | 0.022 | 4 | -0.016 | 0.023 | 4 | -0.025 | 0.035 | 4 | 0.434207473 |

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|---|---|---|---|---|---|---|---|---|---|---|
| 4 | 0.000 | 0.038 | 4 | -0.049 | 0.054 | 4 | 0.006 | 0.039 | 4 | 0.434439545 |
| 4 | -0.018 | 0.009 | 4 | -0.048 | 0.033 | 4 | 0.007 | 0.015 | 4 | 0.434671618 |
| 4 | -0.030 | 0.029 | 4 | -0.017 | 0.027 | 4 | -0.014 | 0.030 | 4 | 0.43490369 |
| 4 | 0.009 | 0.022 | 4 | -0.019 | 0.022 | 4 | -0.001 | 0.021 | 4 | 0.435135762 |
| 4 | -0.004 | 0.017 | 4 | -0.014 | 0.046 | 4 | -0.019 | 0.033 | 4 | 0.435367835 |
| 4 | 0.006 | 0.017 | 4 | 0.007 | 0.029 | 4 | -0.016 | 0.036 | 4 | 0.435599907 |
| 3 | 0.006 | 0.033 | 4 | -0.028 | 0.053 | 4 | -0.050 | 0.031 | 4 | 0.43583198 |
| 4 | 0.000 | 0.039 | 4 | -0.028 | 0.075 | 4 | -0.020 | 0.042 | 4 | 0.436064052 |
| 4 | -0.100 | 0.061 | 4 | -0.042 | 0.033 | 4 | 0.102 | 0.045 | 4 | 0.436296124 |
| 4 | -0.015 | 0.021 | 4 | -0.005 | 0.046 | 4 | 0.007 | 0.015 | 4 | 0.436528197 |
| 3 | -0.048 | 0.020 | 3 | -0.010 | 0.038 | 3 | 0.125 | 0.027 | 3 | 0.436760269 |
| 4 | -0.001 | 0.043 | 4 | 0.012 | 0.052 | 4 | -0.079 | 0.019 | 4 | 0.436992342 |
| 4 | -0.049 | 0.029 | 4 | 0.009 | 0.043 | 4 | 0.005 | 0.014 | 4 | 0.437224414 |
| 4 | 0.025 | 0.021 | 4 | 0.040 | 0.028 | 4 | -0.033 | 0.058 | 4 | 0.437456486 |
| 4 | 0.005 | 0.024 | 4 | -0.045 | 0.053 | 4 | -0.007 | 0.026 | 4 | 0.437688559 |
| 4 | 0.013 | 0.017 | 4 | -0.034 | 0.032 | 4 | -0.015 | 0.029 | 4 | 0.437920631 |
| 4 | -0.005 | 0.010 | 4 | -0.066 | 0.049 | 4 | 0.062 | 0.013 | 4 | 0.438152704 |
| 4 | -0.019 | 0.045 | 4 | -0.040 | 0.065 | 4 | -0.019 | 0.032 | 4 | 0.438384776 |
| 4 | -0.004 | 0.045 | 4 | -0.026 | 0.049 | 4 | -0.016 | 0.063 | 4 | 0.438616848 |
| 4 | 0.003 | 0.012 | 4 | -0.025 | 0.066 | 4 | -0.068 | 0.044 | 4 | 0.438848921 |
| 4 | -0.017 | 0.013 | 4 | -0.001 | 0.026 | 4 | -0.005 | 0.009 | 4 | 0.439080993 |
| 4 | -0.015 | 0.041 | 4 | -0.059 | 0.040 | 4 | -0.052 | 0.023 | 4 | 0.439313066 |
| 4 | -0.037 | 0.062 | 4 | -0.066 | 0.082 | 4 | 0.001 | 0.034 | 4 | 0.439545138 |
| 4 | -0.026 | 0.051 | 4 | -0.003 | 0.041 | 4 | -0.022 | 0.029 | 4 | 0.43977721 |
| 4 | -0.013 | 0.036 | 4 | -0.044 | 0.039 | 4 | 0.019 | 0.030 | 4 | 0.440009283 |
| 4 | 0.003 | 0.045 | 4 | -0.039 | 0.061 | 4 | -0.024 | 0.086 | 4 | 0.440241355 |
| 4 | -0.016 | 0.019 | 4 | -0.013 | 0.038 | 4 | -0.048 | 0.077 | 4 | 0.440473428 |
| 4 | 0.011 | 0.018 | 4 | -0.002 | 0.039 | 4 | -0.005 | 0.015 | 4 | 0.4407055 |
| 4 | 0.021 | 0.016 | 4 | -0.033 | 0.051 | 4 | -0.001 | 0.013 | 4 | 0.440937573 |
| 4 | -0.065 | 0.025 | 4 | -0.008 | 0.035 | 4 | 0.044 | 0.023 | 4 | 0.441169645 |
| 4 | -0.041 | 0.026 | 4 | -0.036 | 0.069 | 4 | 0.007 | 0.057 | 4 | 0.441401717 |
| 2 | -0.009 | 0.010 | 2 | -0.054 | 0.035 | 2 | -0.008 | 0.027 | 2 | 0.44163379 |
| 4 | -0.006 | 0.022 | 4 | -0.004 | 0.026 | 4 | -0.023 | 0.008 | 4 | 0.441865862 |
| 4 | -0.009 | 0.015 | 4 | -0.013 | 0.038 | 4 | -0.005 | 0.012 | 4 | 0.442097935 |
| 4 | -0.008 | 0.037 | 4 | -0.002 | 0.042 | 4 | -0.038 | 0.019 | 4 | 0.442330007 |
| 4 | 0.003 | 0.013 | 4 | -0.023 | 0.049 | 4 | -0.028 | 0.029 | 4 | 0.442562079 |
| 4 | 0.003 | 0.042 | 4 | -0.025 | 0.056 | 4 | 0.018 | 0.032 | 4 | 0.442794152 |
| 4 | -0.015 | 0.015 | 4 | -0.005 | 0.016 | 4 | -0.024 | 0.011 | 4 | 0.443026224 |
| 4 | -0.007 | 0.021 | 4 | -0.027 | 0.035 | 4 | -0.004 | 0.017 | 4 | 0.443258297 |
| 4 | -0.020 | 0.034 | 4 | -0.027 | 0.068 | 4 | -0.005 | 0.021 | 4 | 0.443490369 |
| 4 | -0.008 | 0.049 | 4 | -0.009 | 0.026 | 4 | -0.064 | 0.032 | 4 | 0.443722441 |
| 4 | -0.018 | 0.021 | 4 | -0.014 | 0.058 | 4 | -0.023 | 0.038 | 4 | 0.443954514 |
| 4 | -0.006 | 0.034 | 4 | -0.012 | 0.061 | 4 | -0.030 | 0.026 | 4 | 0.444186586 |
| 4 | -0.018 | 0.040 | 4 | -0.001 | 0.022 | 4 | -0.008 | 0.017 | 4 | 0.444418659 |
| 4 | 0.015 | 0.024 | 4 | -0.072 | 0.021 | 4 | 0.037 | 0.018 | 4 | 0.444650731 |
| 4 | 0.008 | 0.016 | 4 | -0.028 | 0.047 | 4 | -0.016 | 0.030 | 4 | 0.444882803 |
| 3 | -0.044 | 0.019 | 3 | -0.050 | 0.038 | 3 | 0.010 | 0.035 | 3 | 0.445114876 |
| 4 | 0.015 | 0.039 | 4 | -0.040 | 0.072 | 4 | 0.030 | 0.048 | 4 | 0.445346948 |
| 4 | 0.001 | 0.025 | 4 | -0.020 | 0.085 | 4 | -0.023 | 0.053 | 4 | 0.445579021 |
| 3 | -0.037 | 0.024 | 4 | -0.001 | 0.036 | 4 | -0.035 | 0.019 | 4 | 0.445811093 |
| 4 | -0.010 | 0.018 | 4 | -0.022 | 0.032 | 4 | -0.011 | 0.031 | 4 | 0.446043165 |
| 4 | -0.029 | 0.033 | 4 | -0.028 | 0.043 | 4 | -0.055 | 0.034 | 4 | 0.446275238 |

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|---|---|---|---|---|---|---|---|---|---|---|
| 4 | -0.022 | 0.030 | 4 | -0.009 | 0.050 | 4 | -0.012 | 0.036 | 4 | 0.44650731 |
| 4 | 0.045 | 0.008 | 4 | -0.034 | 0.039 | 4 | -0.053 | 0.036 | 4 | 0.446739383 |
| 4 | -0.032 | 0.018 | 4 | -0.003 | 0.028 | 4 | 0.010 | 0.025 | 4 | 0.446971455 |
| 2 | 0.001 | 0.002 | 2 | -0.023 | 0.059 | 2 | -0.022 | 0.025 | 2 | 0.447203528 |
| 4 | 0.040 | 0.070 | 4 | 0.016 | 0.031 | 4 | -0.054 | 0.035 | 4 | 0.4474356 |
| 4 | 0.004 | 0.014 | 4 | -0.029 | 0.043 | 4 | -0.003 | 0.041 | 4 | 0.447667672 |
| 4 | -0.010 | 0.029 | 4 | -0.013 | 0.054 | 4 | -0.013 | 0.030 | 4 | 0.447899745 |
| 4 | 0.005 | 0.017 | 4 | -0.027 | 0.027 | 4 | -0.034 | 0.022 | 4 | 0.448131817 |
| 4 | 0.026 | 0.025 | 4 | 0.022 | 0.032 | 4 | 0.004 | 0.024 | 4 | 0.44836389 |
| 4 | -0.004 | 0.037 | 4 | -0.041 | 0.044 | 4 | -0.027 | 0.043 | 4 | 0.448595962 |
| 2 | -0.098 | 0.016 | 3 | -0.042 | 0.057 | 3 | -0.101 | 0.055 | 3 | 0.448828034 |
| 3 | 0.009 | 0.034 | 4 | 0.026 | 0.028 | 4 | -0.017 | 0.012 | 4 | 0.449060107 |
| 4 | -0.025 | 0.028 | 4 | -0.013 | 0.028 | 4 | -0.011 | 0.052 | 4 | 0.449292179 |
| 4 | 0.005 | 0.028 | 4 | 0.019 | 0.045 | 4 | 0.002 | 0.011 | 4 | 0.449524252 |
| 4 | -0.010 | 0.050 | 4 | -0.018 | 0.061 | 4 | 0.022 | 0.046 | 4 | 0.449756324 |
| 4 | 0.005 | 0.025 | 4 | -0.024 | 0.036 | 4 | 0.008 | 0.014 | 4 | 0.449988396 |
| 4 | -0.022 | 0.028 | 4 | -0.018 | 0.044 | 4 | -0.012 | 0.058 | 4 | 0.450220469 |
| 4 | 0.014 | 0.032 | 4 | -0.035 | 0.043 | 4 | -0.019 | 0.034 | 4 | 0.450452541 |
| 4 | -0.007 | 0.039 | 4 | 0.002 | 0.052 | 4 | -0.010 | 0.039 | 4 | 0.450684614 |
| 4 | -0.024 | 0.035 | 4 | -0.011 | 0.037 | 4 | -0.014 | 0.020 | 4 | 0.450916686 |
| 4 | -0.008 | 0.036 | 4 | -0.045 | 0.048 | 4 | -0.014 | 0.017 | 4 | 0.451148758 |
| 4 | -0.011 | 0.017 | 4 | 0.001 | 0.055 | 4 | 0.000 | 0.029 | 4 | 0.451380831 |
| 4 | 0.007 | 0.036 | 4 | -0.017 | 0.044 | 4 | 0.005 | 0.044 | 4 | 0.451612903 |
| 4 | -0.017 | 0.040 | 4 | -0.055 | 0.016 | 4 | -0.092 | 0.011 | 4 | 0.451844976 |
| 4 | 0.012 | 0.029 | 4 | 0.013 | 0.033 | 4 | -0.002 | 0.031 | 4 | 0.452077048 |
| 4 | -0.043 | 0.048 | 4 | 0.003 | 0.026 | 4 | -0.058 | 0.051 | 4 | 0.45230912 |
| 4 | 0.020 | 0.017 | 4 | -0.001 | 0.043 | 4 | -0.065 | 0.004 | 4 | 0.452541193 |
| 4 | -0.051 | 0.050 | 4 | -0.054 | 0.085 | 4 | -0.003 | 0.033 | 4 | 0.452773265 |
| 4 | -0.024 | 0.026 | 4 | -0.031 | 0.059 | 4 | -0.006 | 0.054 | 4 | 0.453005338 |
| 4 | -0.008 | 0.031 | 4 | -0.008 | 0.056 | 4 | -0.004 | 0.032 | 4 | 0.45323741 |
| 4 | 0.024 | 0.036 | 4 | -0.036 | 0.023 | 4 | 0.015 | 0.009 | 4 | 0.453469482 |
| 4 | -0.005 | 0.011 | 4 | -0.028 | 0.024 | 4 | -0.013 | 0.008 | 4 | 0.453701555 |
| 4 | -0.015 | 0.027 | 4 | -0.034 | 0.043 | 4 | -0.026 | 0.036 | 4 | 0.453933627 |
| 4 | -0.036 | 0.052 | 4 | 0.012 | 0.046 | 4 | 0.005 | 0.023 | 4 | 0.4541657 |
| 4 | -0.011 | 0.026 | 4 | -0.026 | 0.024 | 4 | -0.015 | 0.006 | 4 | 0.454397772 |
| 4 | -0.002 | 0.039 | 4 | 0.000 | 0.036 | 4 | 0.011 | 0.032 | 4 | 0.454629845 |
| 4 | 0.018 | 0.015 | 4 | -0.027 | 0.041 | 4 | -0.040 | 0.041 | 4 | 0.454861917 |
| 4 | -0.016 | 0.024 | 4 | -0.053 | 0.050 | 4 | 0.010 | 0.036 | 4 | 0.455093989 |
| 4 | 0.004 | 0.063 | 4 | -0.045 | 0.062 | 4 | -0.050 | 0.041 | 4 | 0.455326062 |
| 4 | 0.003 | 0.019 | 4 | -0.021 | 0.031 | 4 | 0.004 | 0.039 | 4 | 0.455558134 |
| 4 | 0.020 | 0.034 | 4 | -0.032 | 0.014 | 4 | 0.046 | 0.022 | 4 | 0.455790207 |
| 4 | -0.009 | 0.033 | 4 | -0.013 | 0.016 | 4 | -0.065 | 0.026 | 4 | 0.456022279 |
| 4 | 0.009 | 0.037 | 4 | 0.067 | 0.017 | 4 | -0.058 | 0.051 | 4 | 0.456254351 |
| 2 | 0.002 | 0.005 | 2 | -0.052 | 0.005 | 2 | -0.032 | 0.003 | 2 | 0.456486424 |
| 3 | -0.073 | 0.076 | 4 | -0.065 | 0.080 | 4 | 0.007 | 0.067 | 4 | 0.456718496 |
| 4 | 0.017 | 0.009 | 4 | 0.011 | 0.022 | 4 | -0.010 | 0.034 | 4 | 0.456950569 |
| 4 | 0.039 | 0.050 | 4 | 0.021 | 0.043 | 4 | -0.025 | 0.029 | 4 | 0.457182641 |
| 4 | 0.000 | 0.033 | 4 | -0.006 | 0.014 | 4 | -0.009 | 0.040 | 4 | 0.457414713 |
| 4 | 0.005 | 0.046 | 4 | -0.037 | 0.045 | 4 | -0.028 | 0.025 | 4 | 0.457646786 |
| 4 | 0.034 | 0.051 | 4 | -0.006 | 0.056 | 4 | 0.031 | 0.032 | 4 | 0.457878858 |
| 4 | 0.016 | 0.018 | 4 | -0.080 | 0.054 | 4 | -0.014 | 0.018 | 4 | 0.458110931 |
| 4 | 0.004 | 0.030 | 4 | -0.069 | 0.060 | 4 | 0.005 | 0.041 | 4 | 0.458343003 |

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|---|---|---|---|---|---|---|---|---|---|
| 4 | -0.009 | 0.019 | 4 | 0.002 | 0.038 | 4 | -0.001 | 0.022 | 4 | 0.458575075 |
| 4 | 0.009 | 0.054 | 4 | -0.032 | 0.039 | 4 | -0.025 | 0.017 | 4 | 0.458807148 |
| 4 | 0.045 | 0.033 | 4 | -0.011 | 0.058 | 4 | -0.011 | 0.023 | 4 | 0.45903922 |
| 4 | -0.024 | 0.024 | 4 | -0.020 | 0.016 | 4 | 0.027 | 0.012 | 4 | 0.459271293 |
| 4 | -0.022 | 0.039 | 4 | 0.038 | 0.048 | 4 | -0.027 | 0.033 | 4 | 0.459503365 |
| 3 | 0.053 | 0.041 | 3 | 0.023 | 0.108 | 3 | -0.089 | 0.132 | 3 | 0.459735437 |
| 4 | -0.008 | 0.020 | 4 | -0.032 | 0.022 | 4 | 0.007 | 0.020 | 4 | 0.45996751 |
| 4 | -0.029 | 0.052 | 4 | 0.003 | 0.017 | 4 | 0.009 | 0.017 | 4 | 0.460199582 |
| 4 | 0.023 | 0.033 | 4 | -0.022 | 0.067 | 4 | -0.030 | 0.054 | 4 | 0.460431655 |
| 4 | -0.026 | 0.050 | 4 | -0.027 | 0.041 | 4 | -0.028 | 0.029 | 4 | 0.460663727 |
| 4 | -0.034 | 0.042 | 4 | -0.026 | 0.053 | 4 | 0.010 | 0.023 | 4 | 0.460895799 |
| 4 | -0.019 | 0.029 | 4 | -0.013 | 0.021 | 4 | 0.001 | 0.006 | 4 | 0.461127872 |
| 3 | 0.017 | 0.054 | 4 | -0.114 | 0.086 | 4 | 0.019 | 0.086 | 4 | 0.461359944 |
| 4 | -0.019 | 0.024 | 4 | -0.034 | 0.033 | 4 | -0.017 | 0.024 | 4 | 0.461592017 |
| 4 | 0.000 | 0.038 | 4 | -0.010 | 0.040 | 4 | 0.000 | 0.023 | 4 | 0.461824089 |
| 4 | -0.010 | 0.019 | 4 | -0.015 | 0.048 | 4 | 0.002 | 0.027 | 4 | 0.462056162 |
| 3 | -0.018 | 0.011 | 3 | 0.008 | 0.049 | 3 | -0.013 | 0.026 | 3 | 0.462288234 |
| 3 | -0.003 | 0.024 | 3 | 0.009 | 0.023 | 3 | -0.029 | 0.047 | 3 | 0.462520306 |
| 2 | -0.077 | 0.029 | 4 | -0.032 | 0.037 | 4 | 0.004 | 0.050 | 4 | 0.462752379 |
| 4 | 0.017 | 0.032 | 4 | -0.015 | 0.050 | 4 | 0.015 | 0.028 | 4 | 0.462984451 |
| 2 | 0.004 | 0.026 | 2 | -0.007 | 0.039 | 2 | -0.014 | 0.006 | 2 | 0.463216524 |
| 4 | 0.001 | 0.014 | 4 | -0.062 | 0.054 | 4 | -0.056 | 0.026 | 4 | 0.463448596 |
| 4 | 0.003 | 0.008 | 4 | 0.005 | 0.036 | 4 | -0.037 | 0.014 | 4 | 0.463680668 |
| 4 | 0.003 | 0.033 | 4 | -0.005 | 0.043 | 4 | 0.002 | 0.032 | 4 | 0.463912741 |
| 4 | -0.005 | 0.003 | 4 | 0.008 | 0.036 | 4 | 0.037 | 0.034 | 4 | 0.464144813 |
| 2 | 0.039 | 0.000 | 2 | -0.116 | 0.005 | 2 | 0.119 | 0.005 | 2 | 0.464376886 |
| 4 | -0.020 | 0.049 | 4 | -0.013 | 0.043 | 4 | 0.003 | 0.026 | 4 | 0.464608958 |
| 4 | -0.007 | 0.008 | 4 | -0.057 | 0.059 | 4 | -0.012 | 0.026 | 4 | 0.46484103 |
| 4 | 0.010 | 0.031 | 4 | -0.047 | 0.028 | 4 | 0.015 | 0.022 | 4 | 0.465073103 |
| 3 | -0.014 | 0.032 | 3 | -0.022 | 0.046 | 3 | -0.002 | 0.037 | 3 | 0.465305175 |
| 4 | -0.041 | 0.041 | 4 | -0.031 | 0.053 | 4 | -0.026 | 0.029 | 4 | 0.465537248 |
| 3 | -0.005 | 0.008 | 3 | -0.032 | 0.042 | 3 | -0.078 | 0.009 | 3 | 0.46576932 |
| 4 | 0.008 | 0.032 | 4 | -0.049 | 0.055 | 4 | -0.008 | 0.064 | 4 | 0.466001392 |
| 4 | 0.035 | 0.033 | 4 | 0.037 | 0.044 | 4 | -0.100 | 0.250 | 4 | 0.466233465 |
| 2 | -0.031 | 0.010 | 2 | -0.042 | 0.028 | 2 | 0.005 | 0.004 | 2 | 0.466465537 |
| 4 | 0.001 | 0.031 | 4 | -0.021 | 0.030 | 4 | -0.018 | 0.019 | 4 | 0.46669761 |
| 4 | 0.007 | 0.022 | 4 | -0.043 | 0.041 | 4 | -0.030 | 0.029 | 4 | 0.466929682 |
| 4 | 0.014 | 0.022 | 4 | -0.015 | 0.049 | 4 | -0.054 | 0.025 | 4 | 0.467161754 |
| 4 | -0.041 | 0.032 | 4 | -0.015 | 0.058 | 4 | -0.035 | 0.035 | 4 | 0.467393827 |
| 4 | -0.004 | 0.019 | 4 | -0.010 | 0.059 | 4 | -0.057 | 0.053 | 4 | 0.467625899 |
| 4 | -0.023 | 0.022 | 4 | -0.014 | 0.030 | 4 | -0.041 | 0.030 | 4 | 0.467857972 |
| 3 | 0.015 | 0.034 | 4 | -0.037 | 0.053 | 4 | 0.005 | 0.025 | 4 | 0.468090044 |
| 4 | -0.006 | 0.018 | 4 | 0.011 | 0.018 | 4 | 0.004 | 0.017 | 4 | 0.468322117 |
| 4 | -0.003 | 0.009 | 4 | -0.052 | 0.042 | 4 | -0.007 | 0.012 | 4 | 0.468554189 |
| 4 | -0.016 | 0.017 | 4 | -0.024 | 0.031 | 4 | -0.024 | 0.022 | 4 | 0.468786261 |
| 4 | 0.004 | 0.015 | 4 | -0.038 | 0.047 | 4 | -0.041 | 0.028 | 4 | 0.469018334 |
| 4 | -0.006 | 0.015 | 4 | -0.040 | 0.059 | 4 | -0.013 | 0.054 | 4 | 0.469250406 |
| 4 | -0.005 | 0.006 | 4 | -0.052 | 0.030 | 4 | -0.055 | 0.008 | 4 | 0.469482479 |
| 4 | -0.007 | 0.011 | 4 | -0.072 | 0.017 | 4 | 0.022 | 0.023 | 4 | 0.469714551 |
| 4 | 0.009 | 0.036 | 4 | 0.013 | 0.042 | 4 | -0.029 | 0.032 | 4 | 0.469946623 |
| 3 | 0.006 | 0.024 | 3 | 0.048 | 0.043 | 3 | -0.096 | 0.229 | 3 | 0.470178696 |
| 4 | 0.015 | 0.025 | 4 | 0.001 | 0.044 | 4 | -0.040 | 0.069 | 4 | 0.470410768 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 4 | 0.004 | 0.020 | 4 | -0.011 | 0.034 | 4 | -0.002 | 0.021 | 4 | 0.470642841 |
| 4 | -0.023 | 0.036 | 4 | -0.016 | 0.052 | 4 | -0.001 | 0.046 | 4 | 0.470874913 |
| 4 | 0.006 | 0.038 | 4 | -0.056 | 0.050 | 4 | -0.009 | 0.045 | 4 | 0.471106985 |
| 4 | 0.051 | 0.025 | 4 | 0.017 | 0.030 | 4 | -0.026 | 0.033 | 4 | 0.471339058 |
| | -0.098 | 0.073 | 2 | 0.003 | 0.077 | 2 | 0.055 | 0.088 | 2 | 0.47157113 |
| 4 | 0.010 | 0.019 | 4 | -0.032 | 0.047 | 4 | -0.019 | 0.013 | 4 | 0.471803203 |
| 4 | 0.053 | 0.037 | 4 | 0.011 | 0.052 | 4 | -0.013 | 0.041 | 4 | 0.472035275 |
| 4 | 0.000 | 0.032 | 4 | -0.057 | 0.031 | 4 | -0.008 | 0.044 | 4 | 0.472267347 |
| 2 | 0.016 | 0.010 | 2 | 0.016 | 0.043 | 2 | -0.030 | 0.029 | 2 | 0.47249942 |
| 4 | -0.009 | 0.015 | 4 | 0.011 | 0.042 | 4 | -0.029 | 0.020 | 4 | 0.472731492 |
| 4 | -0.067 | 0.008 | 4 | -0.058 | 0.044 | 4 | 0.021 | 0.035 | 4 | 0.472963565 |
| 4 | 0.045 | 0.053 | 4 | -0.023 | 0.033 | 4 | -0.036 | 0.011 | 4 | 0.473195637 |
| 4 | -0.006 | 0.046 | 4 | -0.008 | 0.066 | 4 | -0.011 | 0.024 | 4 | 0.473427709 |
| 4 | 0.001 | 0.028 | 4 | -0.006 | 0.037 | 4 | -0.027 | 0.018 | 4 | 0.473659782 |
| 4 | -0.045 | 0.024 | 4 | -0.021 | 0.028 | 4 | -0.004 | 0.035 | 4 | 0.473891854 |
| 4 | -0.017 | 0.025 | 4 | -0.022 | 0.035 | 4 | -0.018 | 0.011 | 4 | 0.474123927 |
| 4 | -0.011 | 0.019 | 4 | -0.001 | 0.084 | 4 | -0.003 | 0.044 | 4 | 0.474355999 |
| 4 | -0.014 | 0.014 | 4 | 0.009 | 0.046 | 4 | 0.000 | 0.029 | 4 | 0.474588071 |
| 4 | -0.007 | 0.035 | 4 | -0.024 | 0.034 | 4 | -0.008 | 0.047 | 4 | 0.474820144 |
| 4 | 0.001 | 0.024 | 4 | 0.013 | 0.019 | 4 | -0.018 | 0.011 | 4 | 0.475052216 |
| 4 | 0.033 | 0.037 | 4 | 0.003 | 0.034 | 4 | 0.001 | 0.023 | 4 | 0.475284289 |
| 3 | -0.009 | 0.039 | 4 | -0.072 | 0.041 | 4 | 0.019 | 0.064 | 4 | 0.475516361 |
| 2 | -0.012 | 0.013 | 2 | -0.014 | 0.065 | 2 | -0.013 | 0.018 | 2 | 0.475748434 |
| 4 | 0.037 | 0.024 | 4 | 0.038 | 0.052 | 4 | -0.051 | 0.043 | 4 | 0.475980506 |
| 4 | 0.005 | 0.037 | 4 | -0.027 | 0.046 | 4 | -0.074 | 0.016 | 4 | 0.476212578 |
| 4 | -0.022 | 0.020 | 4 | -0.026 | 0.037 | 4 | -0.032 | 0.015 | 4 | 0.476444651 |
| 4 | 0.006 | 0.039 | 4 | -0.054 | 0.039 | 4 | -0.005 | 0.041 | 4 | 0.476676723 |
| 4 | -0.020 | 0.020 | 4 | -0.022 | 0.044 | 4 | 0.002 | 0.026 | 4 | 0.476908796 |
| 2 | -0.009 | 0.017 | 3 | 0.007 | 0.023 | 3 | 0.009 | 0.061 | 3 | 0.477140868 |
| 4 | -0.011 | 0.029 | 4 | -0.035 | 0.024 | 4 | -0.013 | 0.025 | 4 | 0.47737294 |
| 4 | 0.016 | 0.059 | 4 | -0.028 | 0.048 | 4 | -0.013 | 0.034 | 4 | 0.477605013 |
| 4 | -0.006 | 0.038 | 4 | -0.031 | 0.069 | 4 | 0.021 | 0.057 | 4 | 0.477837085 |
| 2 | -0.061 | 0.081 | 2 | -0.034 | 0.003 | 2 | -0.026 | 0.034 | 2 | 0.478069158 |
| 4 | -0.026 | 0.024 | 4 | -0.026 | 0.047 | 4 | 0.008 | 0.029 | 4 | 0.47830123 |
| 4 | -0.020 | 0.041 | 4 | -0.026 | 0.046 | 4 | 0.017 | 0.045 | 4 | 0.478533302 |
| 4 | -0.004 | 0.010 | 4 | -0.038 | 0.046 | 4 | -0.028 | 0.031 | 4 | 0.478765375 |
| 3 | -0.071 | 0.027 | 3 | -0.039 | 0.072 | 3 | 0.035 | 0.054 | 3 | 0.478997447 |
| 4 | -0.051 | 0.080 | 4 | -0.077 | 0.101 | 4 | -0.002 | 0.037 | 4 | 0.47922952 |
| 2 | 0.023 | 0.006 | 2 | 0.024 | 0.016 | 2 | -0.039 | 0.012 | 2 | 0.479461592 |
| 4 | 0.019 | 0.029 | 4 | -0.026 | 0.029 | 4 | -0.012 | 0.025 | 4 | 0.479693664 |
| 4 | 0.009 | 0.011 | 4 | 0.013 | 0.047 | 4 | -0.023 | 0.025 | 4 | 0.479925737 |
| 4 | -0.006 | 0.024 | 4 | -0.024 | 0.081 | 4 | -0.013 | 0.046 | 4 | 0.480157809 |
| 4 | -0.011 | 0.016 | 4 | -0.007 | 0.037 | 4 | 0.000 | 0.013 | 4 | 0.480389882 |
| 4 | -0.012 | 0.027 | 4 | 0.003 | 0.014 | 4 | 0.040 | 0.028 | 4 | 0.480621954 |
| 4 | 0.021 | 0.024 | 4 | -0.028 | 0.027 | 4 | -0.034 | 0.048 | 4 | 0.480854026 |
| 4 | 0.005 | 0.023 | 4 | 0.033 | 0.035 | 4 | 0.002 | 0.014 | 4 | 0.481086099 |
| 4 | 0.011 | 0.009 | 4 | -0.025 | 0.033 | 4 | -0.015 | 0.010 | 4 | 0.481318171 |
| 4 | -0.005 | 0.024 | 4 | 0.015 | 0.050 | 4 | -0.054 | 0.029 | 4 | 0.481550244 |
| 4 | 0.003 | 0.035 | 4 | -0.005 | 0.049 | 4 | 0.009 | 0.047 | 4 | 0.481782316 |
| 4 | -0.008 | 0.011 | 4 | -0.050 | 0.094 | 4 | -0.004 | 0.036 | 4 | 0.482014388 |
| 4 | -0.045 | 0.024 | 4 | -0.026 | 0.039 | 4 | -0.026 | 0.023 | 4 | 0.482246461 |
| 4 | 0.029 | 0.031 | 4 | -0.053 | 0.050 | 4 | 0.015 | 0.022 | 4 | 0.482478533 |

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|---|---|---|---|---|---|---|---|---|---|---|
| 4 | -0.023 | 0.017 | 4 | -0.011 | 0.029 | 4 | -0.010 | 0.017 | 4 | 0.482710606 |
| 4 | 0.003 | 0.040 | 4 | -0.022 | 0.050 | 4 | -0.016 | 0.028 | 4 | 0.482942678 |
| 4 | -0.006 | 0.030 | 4 | -0.032 | 0.023 | 4 | 0.030 | 0.040 | 4 | 0.483174751 |
| | -0.027 | 0.010 | 2 | -0.029 | 0.000 | 2 | 0.019 | 0.009 | 2 | 0.483406823 |
| 4 | 0.002 | 0.046 | 4 | -0.036 | 0.046 | 4 | 0.016 | 0.035 | 4 | 0.483638895 |
| 4 | -0.009 | 0.039 | 4 | 0.022 | 0.038 | 4 | -0.028 | 0.045 | 4 | 0.483870968 |
| 4 | -0.016 | 0.012 | 4 | -0.025 | 0.027 | 4 | -0.019 | 0.023 | 4 | 0.48410304 |
| 4 | -0.007 | 0.024 | 4 | -0.035 | 0.043 | 4 | 0.000 | 0.012 | 4 | 0.484335113 |
| 4 | -0.016 | 0.021 | 4 | -0.087 | 0.094 | 4 | -0.042 | 0.052 | 4 | 0.484567185 |
| 3 | -0.014 | 0.042 | 4 | -0.015 | 0.053 | 4 | -0.043 | 0.085 | 4 | 0.484799257 |
| 4 | 0.002 | 0.032 | 4 | -0.015 | 0.033 | 4 | 0.037 | 0.036 | 4 | 0.48503133 |
| 4 | 0.018 | 0.037 | 4 | 0.075 | 0.020 | 4 | -0.199 | 0.288 | 4 | 0.485263402 |
| 4 | -0.045 | 0.052 | 4 | -0.005 | 0.026 | 4 | 0.021 | 0.006 | 4 | 0.485495475 |
| 4 | 0.000 | 0.007 | 4 | -0.004 | 0.027 | 4 | -0.028 | 0.012 | 4 | 0.485727547 |
| 4 | 0.007 | 0.023 | 4 | -0.037 | 0.022 | 4 | -0.004 | 0.013 | 4 | 0.485959619 |
| 3 | -0.019 | 0.015 | 3 | 0.003 | 0.006 | 3 | -0.021 | 0.033 | 3 | 0.486191692 |
| 4 | 0.010 | 0.017 | 4 | 0.054 | 0.036 | 4 | -0.056 | 0.031 | 4 | 0.486423764 |
| 4 | -0.006 | 0.024 | 4 | -0.011 | 0.034 | 4 | -0.024 | 0.056 | 4 | 0.486655837 |
| 4 | -0.020 | 0.024 | 4 | -0.008 | 0.044 | 4 | 0.008 | 0.022 | 4 | 0.486887909 |
| 4 | 0.000 | 0.016 | 4 | -0.024 | 0.092 | 4 | -0.013 | 0.056 | 4 | 0.487119981 |
| 4 | 0.008 | 0.012 | 4 | -0.028 | 0.081 | 4 | -0.004 | 0.028 | 4 | 0.487352054 |
| 4 | -0.022 | 0.010 | 4 | -0.010 | 0.042 | 4 | -0.007 | 0.023 | 4 | 0.487584126 |
| 4 | -0.077 | 0.039 | 4 | -0.057 | 0.029 | 4 | 0.052 | 0.035 | 4 | 0.487816199 |
| 4 | -0.008 | 0.013 | 4 | -0.013 | 0.043 | 4 | 0.006 | 0.021 | 4 | 0.488048271 |
| 4 | -0.018 | 0.025 | 4 | -0.066 | 0.042 | 4 | 0.021 | 0.051 | 4 | 0.488280343 |
| 4 | -0.010 | 0.033 | 4 | 0.021 | 0.059 | 4 | 0.004 | 0.027 | 4 | 0.488512416 |
| 4 | 0.017 | 0.036 | 4 | 0.022 | 0.034 | 4 | -0.024 | 0.021 | 4 | 0.488744488 |
| 4 | -0.012 | 0.025 | 4 | -0.008 | 0.041 | 4 | 0.019 | 0.044 | 4 | 0.488976561 |
| 4 | 0.000 | 0.037 | 4 | -0.015 | 0.036 | 4 | -0.030 | 0.028 | 4 | 0.489208633 |
| 4 | 0.005 | 0.014 | 4 | -0.006 | 0.024 | 4 | -0.030 | 0.039 | 4 | 0.489440706 |
| 4 | -0.040 | 0.020 | 4 | -0.033 | 0.054 | 4 | 0.035 | 0.045 | 4 | 0.489672778 |
| 4 | -0.012 | 0.031 | 4 | -0.035 | 0.026 | 4 | 0.005 | 0.038 | 4 | 0.48990485 |
| 4 | -0.003 | 0.019 | 4 | -0.038 | 0.060 | 4 | -0.009 | 0.063 | 4 | 0.490136923 |
| 4 | -0.012 | 0.050 | 4 | 0.012 | 0.038 | 4 | 0.017 | 0.041 | 4 | 0.490368995 |
| 4 | 0.025 | 0.030 | 4 | 0.040 | 0.038 | 4 | 0.018 | 0.027 | 4 | 0.490601068 |
| 4 | -0.012 | 0.010 | 4 | -0.020 | 0.018 | 4 | 0.028 | 0.013 | 4 | 0.49083314 |
| 4 | 0.015 | 0.028 | 4 | 0.016 | 0.036 | 4 | -0.025 | 0.024 | 4 | 0.491065212 |
| 4 | -0.015 | 0.043 | 4 | 0.009 | 0.038 | 4 | 0.018 | 0.021 | 4 | 0.491297285 |
| 4 | -0.042 | 0.057 | 4 | 0.003 | 0.064 | 4 | 0.004 | 0.026 | 4 | 0.491529357 |
| 4 | 0.006 | 0.033 | 4 | 0.024 | 0.042 | 4 | -0.051 | 0.026 | 4 | 0.49176143 |
| 4 | -0.005 | 0.009 | 4 | -0.019 | 0.023 | 4 | -0.008 | 0.014 | 4 | 0.491993502 |
| 4 | 0.005 | 0.033 | 4 | -0.023 | 0.051 | 4 | -0.032 | 0.038 | 4 | 0.492225574 |
| 4 | -0.025 | 0.031 | 4 | -0.067 | 0.031 | 4 | -0.013 | 0.041 | 4 | 0.492457647 |
| 2 | -0.005 | 0.023 | 2 | -0.014 | 0.032 | 2 | -0.002 | 0.006 | 2 | 0.492689719 |
| 4 | 0.011 | 0.026 | 4 | -0.004 | 0.045 | 4 | -0.023 | 0.103 | 4 | 0.492921792 |
| 4 | 0.027 | 0.028 | 4 | 0.001 | 0.068 | 4 | -0.022 | 0.032 | 4 | 0.493153864 |
| 4 | 0.009 | 0.026 | 4 | -0.034 | 0.058 | 4 | -0.014 | 0.028 | 4 | 0.493385936 |
| 3 | -0.029 | 0.033 | 4 | -0.073 | 0.023 | 4 | -0.015 | 0.027 | 4 | 0.493618009 |
| 4 | 0.045 | 0.015 | 4 | -0.003 | 0.044 | 4 | 0.023 | 0.028 | 4 | 0.493850081 |
| 4 | -0.012 | 0.015 | 4 | -0.024 | 0.042 | 4 | -0.009 | 0.041 | 4 | 0.494082154 |
| 4 | -0.009 | 0.015 | 4 | -0.048 | 0.049 | 4 | -0.041 | 0.052 | 4 | 0.494314226 |
| 4 | 0.025 | 0.032 | 4 | -0.032 | 0.065 | 4 | -0.009 | 0.104 | 4 | 0.494546298 |

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|---|---|---|---|---|---|---|---|---|---|---|
| 4 | -0.032 | 0.029 | 4 | -0.019 | 0.040 | 4 | 0.010 | 0.027 | 4 | 0.494778371 |
| 4 | 0.010 | 0.037 | 4 | -0.009 | 0.059 | 4 | -0.004 | 0.069 | 4 | 0.495010443 |
| 4 | -0.016 | 0.086 | 4 | 0.038 | 0.061 | 4 | 0.001 | 0.045 | 4 | 0.495242516 |
| 4 | 0.006 | 0.018 | 4 | -0.039 | 0.054 | 4 | 0.003 | 0.054 | 4 | 0.495474588 |
| 4 | -0.018 | 0.029 | 4 | -0.006 | 0.036 | 4 | 0.008 | 0.029 | 4 | 0.49570666 |
| 4 | 0.036 | 0.037 | 4 | 0.064 | 0.069 | 4 | 0.037 | 0.046 | 4 | 0.495938733 |
| 3 | -0.015 | 0.028 | 3 | -0.032 | 0.079 | 3 | -0.007 | 0.024 | 3 | 0.496170805 |
| 4 | 0.017 | 0.034 | 4 | 0.021 | 0.044 | 4 | -0.020 | 0.053 | 4 | 0.496402878 |
| 4 | -0.007 | 0.041 | 4 | -0.043 | 0.044 | 4 | 0.000 | 0.032 | 4 | 0.49663495 |
| 2 | -0.013 | 0.008 | 2 | -0.011 | 0.026 | 2 | -0.010 | 0.013 | 2 | 0.496867023 |
| 4 | -0.016 | 0.032 | 4 | -0.020 | 0.032 | 4 | -0.004 | 0.027 | 4 | 0.497099095 |
| 2 | -0.032 | 0.005 | 2 | 0.002 | 0.003 | 2 | -0.023 | 0.003 | 2 | 0.497331167 |
| 2 | -0.006 | 0.020 | 2 | -0.026 | 0.039 | 2 | 0.002 | 0.022 | 2 | 0.49756324 |
| 4 | -0.024 | 0.033 | 4 | -0.031 | 0.032 | 4 | -0.015 | 0.033 | 4 | 0.497795312 |
| 4 | -0.004 | 0.022 | 4 | -0.009 | 0.028 | 4 | 0.001 | 0.036 | 4 | 0.498027385 |
| 4 | 0.024 | 0.021 | 4 | 0.005 | 0.019 | 4 | -0.077 | 0.110 | 4 | 0.498259457 |
| 4 | 0.003 | 0.032 | 4 | -0.057 | 0.051 | 4 | -0.004 | 0.026 | 4 | 0.498491529 |
| 4 | 0.004 | 0.013 | 4 | 0.011 | 0.058 | 4 | 0.002 | 0.019 | 4 | 0.498723602 |
| 4 | 0.015 | 0.039 | 4 | 0.003 | 0.039 | 4 | 0.018 | 0.017 | 4 | 0.498955674 |
| 4 | -0.012 | 0.028 | 4 | -0.022 | 0.045 | 4 | 0.001 | 0.022 | 4 | 0.499187747 |
| 4 | -0.015 | 0.020 | 4 | -0.037 | 0.036 | 4 | -0.015 | 0.028 | 4 | 0.499419819 |
| 4 | -0.033 | 0.040 | 4 | 0.003 | 0.034 | 4 | 0.030 | 0.012 | 4 | 0.499651891 |
| 2 | -0.053 | 0.003 | 2 | 0.052 | 0.017 | 2 | 0.021 | 0.001 | 2 | 0.499883964 |
| 4 | -0.020 | 0.057 | 4 | -0.067 | 0.079 | 4 | -0.010 | 0.027 | 4 | 0.500116036 |
| 4 | 0.014 | 0.027 | 4 | -0.012 | 0.030 | 4 | -0.009 | 0.028 | 4 | 0.500348109 |
| 4 | -0.032 | 0.024 | 4 | -0.001 | 0.030 | 4 | -0.023 | 0.038 | 4 | 0.500580181 |
| 2 | -0.061 | 0.047 | 2 | 0.004 | 0.066 | 2 | 0.036 | 0.021 | 2 | 0.500812253 |
| 4 | -0.066 | 0.015 | 4 | 0.024 | 0.079 | 4 | 0.002 | 0.031 | 4 | 0.501044326 |
| 4 | -0.016 | 0.034 | 4 | -0.020 | 0.029 | 4 | -0.021 | 0.038 | 4 | 0.501276398 |
| 4 | -0.003 | 0.035 | 4 | -0.033 | 0.065 | 4 | -0.045 | 0.051 | 4 | 0.501508471 |
| 4 | -0.023 | 0.015 | 4 | 0.013 | 0.051 | 4 | 0.004 | 0.028 | 4 | 0.501740543 |
| 4 | 0.013 | 0.034 | 4 | -0.057 | 0.038 | 4 | -0.022 | 0.009 | 4 | 0.501972615 |
| 4 | -0.016 | 0.034 | 4 | -0.030 | 0.042 | 4 | -0.022 | 0.060 | 4 | 0.502204688 |
| 4 | 0.005 | 0.053 | 4 | -0.025 | 0.064 | 4 | 0.005 | 0.075 | 4 | 0.50243676 |
| 4 | 0.021 | 0.014 | 4 | -0.010 | 0.019 | 4 | -0.012 | 0.024 | 4 | 0.502668833 |
| 4 | 0.006 | 0.036 | 4 | -0.032 | 0.056 | 4 | -0.046 | 0.031 | 4 | 0.502900905 |
| 4 | -0.006 | 0.013 | 4 | 0.011 | 0.024 | 4 | 0.003 | 0.004 | 4 | 0.503132977 |
| 4 | -0.022 | 0.026 | 4 | -0.005 | 0.029 | 4 | 0.030 | 0.033 | 4 | 0.50336505 |
| 2 | -0.004 | 0.048 | 2 | -0.070 | 0.027 | 2 | -0.024 | 0.003 | 2 | 0.503597122 |
| 4 | -0.183 | 0.066 | 4 | -0.028 | 0.022 | 4 | 0.192 | 0.034 | 4 | 0.503829195 |
| 4 | 0.002 | 0.040 | 4 | -0.028 | 0.033 | 4 | 0.022 | 0.040 | 4 | 0.504061267 |
| 4 | 0.012 | 0.045 | 4 | -0.049 | 0.048 | 4 | -0.017 | 0.028 | 4 | 0.50429334 |
| 4 | -0.011 | 0.044 | 4 | -0.037 | 0.052 | 4 | -0.041 | 0.029 | 4 | 0.504525412 |
| 3 | -0.112 | 0.087 | 3 | 0.057 | 0.038 | 3 | 0.228 | 0.039 | 3 | 0.504757484 |
| 4 | -0.011 | 0.039 | 4 | -0.036 | 0.044 | 4 | -0.027 | 0.037 | 4 | 0.504989557 |
| 4 | 0.064 | 0.028 | 4 | -0.034 | 0.036 | 4 | -0.014 | 0.048 | 4 | 0.505221629 |
| 4 | 0.030 | 0.011 | 4 | -0.033 | 0.041 | 4 | -0.015 | 0.031 | 4 | 0.505453702 |
| 4 | -0.025 | 0.029 | 4 | -0.011 | 0.053 | 4 | 0.017 | 0.031 | 4 | 0.505685774 |
| 4 | 0.015 | 0.043 | 4 | -0.026 | 0.046 | 4 | -0.027 | 0.030 | 4 | 0.505917846 |
| 4 | 0.007 | 0.040 | 4 | 0.030 | 0.076 | 4 | 0.007 | 0.042 | 4 | 0.506149919 |
| 4 | 0.009 | 0.014 | 4 | 0.013 | 0.027 | 4 | -0.025 | 0.027 | 4 | 0.506381991 |
| 4 | -0.021 | 0.029 | 4 | -0.001 | 0.042 | 4 | 0.005 | 0.044 | 4 | 0.506614064 |

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|---|---|---|---|---|---|---|---|---|---|---|
| 4 | -0.004 | 0.047 | 4 | -0.029 | 0.054 | 4 | -0.008 | 0.039 | 4 | 0.506846136 |
| 4 | 0.016 | 0.041 | 4 | -0.003 | 0.068 | 4 | -0.027 | 0.048 | 4 | 0.507078208 |
| 4 | -0.002 | 0.024 | 4 | -0.017 | 0.037 | 4 | -0.024 | 0.006 | 4 | 0.507310281 |
| 4 | -0.008 | 0.009 | 4 | -0.011 | 0.037 | 4 | 0.019 | 0.018 | 4 | 0.507542353 |
| 4 | -0.020 | 0.024 | 4 | -0.023 | 0.047 | 4 | 0.003 | 0.058 | 4 | 0.507774426 |
| 4 | 0.004 | 0.032 | 4 | -0.023 | 0.029 | 4 | -0.007 | 0.032 | 4 | 0.508006498 |
| 4 | -0.010 | 0.036 | 4 | -0.029 | 0.028 | 4 | -0.020 | 0.032 | 4 | 0.50823857 |
| 3 | -0.014 | 0.045 | 4 | -0.028 | 0.065 | 4 | -0.020 | 0.064 | 4 | 0.508470643 |
| 4 | 0.002 | 0.038 | 4 | -0.042 | 0.034 | 4 | -0.010 | 0.037 | 4 | 0.508702715 |
| 4 | -0.029 | 0.015 | 4 | -0.021 | 0.047 | 4 | 0.002 | 0.012 | 4 | 0.508934788 |
| 4 | 0.025 | 0.031 | 4 | 0.037 | 0.029 | 4 | -0.134 | 0.176 | 4 | 0.50916686 |
| 4 | 0.013 | 0.027 | 4 | 0.006 | 0.044 | 4 | -0.010 | 0.033 | 4 | 0.509398932 |
| 4 | 0.005 | 0.048 | 4 | -0.042 | 0.062 | 4 | 0.013 | 0.054 | 4 | 0.509631005 |
| 4 | 0.000 | 0.027 | 4 | 0.007 | 0.053 | 4 | 0.015 | 0.026 | 4 | 0.509863077 |
| 4 | -0.031 | 0.023 | 4 | 0.007 | 0.020 | 4 | -0.004 | 0.009 | 4 | 0.51009515 |
| 4 | 0.009 | 0.029 | 4 | -0.017 | 0.049 | 4 | -0.026 | 0.030 | 4 | 0.510327222 |
| 3 | -0.017 | 0.035 | 4 | -0.030 | 0.032 | 4 | -0.025 | 0.025 | 4 | 0.510559294 |
| 4 | -0.035 | 0.049 | 4 | 0.017 | 0.045 | 4 | -0.001 | 0.016 | 4 | 0.510791367 |
| 4 | -0.020 | 0.049 | 4 | 0.001 | 0.058 | 4 | 0.018 | 0.034 | 4 | 0.511023439 |
| 4 | -0.008 | 0.039 | 4 | -0.001 | 0.049 | 4 | 0.014 | 0.034 | 4 | 0.511255512 |
| | -0.004 | 0.005 | 2 | -0.011 | 0.015 | 2 | -0.015 | 0.026 | 2 | 0.511487584 |
| 4 | -0.044 | 0.027 | 4 | -0.051 | 0.017 | 4 | -0.017 | 0.013 | 4 | 0.511719657 |
| 2 | -0.011 | 0.014 | 2 | -0.028 | 0.020 | 2 | 0.000 | 0.004 | 2 | 0.511951729 |
| 4 | -0.021 | 0.057 | 4 | -0.012 | 0.047 | 4 | 0.004 | 0.031 | 4 | 0.512183801 |
| 4 | -0.019 | 0.059 | 4 | 0.008 | 0.070 | 4 | -0.011 | 0.069 | 4 | 0.512415874 |
| 4 | -0.017 | 0.032 | 4 | -0.025 | 0.040 | 4 | 0.001 | 0.019 | 4 | 0.512647946 |
| 4 | -0.012 | 0.006 | 4 | -0.033 | 0.045 | 4 | -0.038 | 0.023 | 4 | 0.512880019 |
| 4 | -0.002 | 0.022 | 4 | -0.029 | 0.057 | 4 | -0.010 | 0.017 | 4 | 0.513112091 |
| 2 | 0.005 | 0.005 | 2 | 0.005 | 0.019 | 2 | -0.016 | 0.018 | 2 | 0.513344163 |
| 4 | 0.030 | 0.025 | 4 | 0.003 | 0.042 | 4 | -0.048 | 0.035 | 4 | 0.513576236 |
| 4 | 0.006 | 0.015 | 4 | 0.006 | 0.038 | 4 | -0.013 | 0.030 | 4 | 0.513808308 |
| 4 | -0.012 | 0.058 | 4 | -0.020 | 0.030 | 4 | -0.014 | 0.015 | 4 | 0.514040381 |
| 4 | -0.001 | 0.030 | 4 | 0.003 | 0.048 | 4 | -0.022 | 0.015 | 4 | 0.514272453 |
| 4 | -0.015 | 0.030 | 4 | -0.013 | 0.038 | 4 | -0.011 | 0.032 | 4 | 0.514504525 |
| 2 | -0.021 | 0.047 | 4 | -0.074 | 0.022 | 4 | 0.025 | 0.022 | 4 | 0.514736598 |
| 4 | 0.006 | 0.032 | 4 | -0.051 | 0.049 | 4 | 0.033 | 0.050 | 4 | 0.51496867 |
| 4 | -0.003 | 0.026 | 4 | -0.039 | 0.049 | 4 | -0.002 | 0.024 | 4 | 0.515200743 |
| 4 | 0.004 | 0.043 | 4 | -0.028 | 0.063 | 4 | -0.022 | 0.065 | 4 | 0.515432815 |
| 4 | -0.004 | 0.016 | 4 | 0.022 | 0.051 | 4 | -0.024 | 0.031 | 4 | 0.515664887 |
| 4 | -0.013 | 0.047 | 4 | -0.049 | 0.038 | 4 | -0.025 | 0.034 | 4 | 0.51589696 |
| 4 | 0.013 | 0.037 | 4 | 0.050 | 0.020 | 4 | -0.079 | 0.111 | 4 | 0.516129032 |
| 4 | -0.054 | 0.010 | 4 | -0.050 | 0.026 | 4 | 0.003 | 0.013 | 4 | 0.516361105 |
| 4 | 0.023 | 0.024 | 4 | -0.033 | 0.050 | 4 | 0.016 | 0.063 | 4 | 0.516593177 |
| 4 | -0.020 | 0.027 | 4 | 0.000 | 0.027 | 4 | -0.019 | 0.027 | 4 | 0.516825249 |
| 2 | -0.017 | 0.025 | 2 | -0.033 | 0.032 | 2 | -0.005 | 0.033 | 2 | 0.517057322 |
| 4 | 0.009 | 0.019 | 4 | 0.022 | 0.020 | 4 | -0.015 | 0.047 | 4 | 0.517289394 |
| 4 | -0.017 | 0.043 | 4 | 0.001 | 0.042 | 4 | -0.022 | 0.043 | 4 | 0.517521467 |
| 4 | -0.025 | 0.027 | 4 | -0.008 | 0.017 | 4 | 0.003 | 0.040 | 4 | 0.517753539 |
| 4 | -0.021 | 0.024 | 4 | -0.032 | 0.011 | 4 | 0.004 | 0.044 | 4 | 0.517985612 |
| 2 | -0.055 | 0.014 | 2 | -0.027 | 0.036 | 2 | -0.039 | 0.034 | 2 | 0.518217684 |
| 4 | 0.001 | 0.022 | 4 | -0.011 | 0.045 | 4 | 0.000 | 0.022 | 4 | 0.518449756 |
| 3 | -0.019 | 0.048 | 4 | -0.037 | 0.101 | 4 | 0.048 | 0.029 | 4 | 0.518681829 |

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|---|---|---|---|---|---|---|---|---|---|---|
| 4 | 0.015 | 0.074 | 4 | -0.020 | 0.014 | 4 | -0.021 | 0.035 | 4 | 0.518913901 |
| 4 | -0.013 | 0.029 | 4 | 0.003 | 0.029 | 4 | -0.023 | 0.034 | 4 | 0.519145974 |
| 4 | -0.007 | 0.043 | 4 | -0.021 | 0.030 | 4 | -0.030 | 0.032 | 4 | 0.519378046 |
| 4 | -0.009 | 0.018 | 4 | -0.033 | 0.035 | 4 | 0.011 | 0.024 | 4 | 0.519610118 |
| 4 | 0.019 | 0.039 | 4 | 0.041 | 0.040 | 4 | -0.042 | 0.047 | 4 | 0.519842191 |
| 3 | 0.007 | 0.041 | 4 | -0.018 | 0.068 | 4 | 0.027 | 0.022 | 4 | 0.520074263 |
| 4 | 0.015 | 0.019 | 4 | -0.006 | 0.045 | 4 | 0.016 | 0.006 | 4 | 0.520306336 |
| 4 | 0.002 | 0.024 | 4 | 0.011 | 0.041 | 4 | 0.013 | 0.034 | 4 | 0.520538408 |
| 4 | 0.014 | 0.016 | 4 | 0.046 | 0.041 | 4 | -0.005 | 0.027 | 4 | 0.52077048 |
| 3 | -0.041 | 0.018 | 4 | -0.033 | 0.042 | 4 | -0.026 | 0.015 | 4 | 0.521002553 |
| 4 | -0.030 | 0.035 | 4 | 0.008 | 0.037 | 4 | 0.017 | 0.015 | 4 | 0.521234625 |
| 4 | -0.012 | 0.022 | 4 | -0.010 | 0.025 | 4 | -0.023 | 0.035 | 4 | 0.521466698 |
| 4 | 0.044 | 0.031 | 4 | 0.003 | 0.047 | 4 | -0.011 | 0.017 | 4 | 0.52169877 |
| 4 | -0.028 | 0.050 | 4 | -0.043 | 0.027 | 4 | 0.003 | 0.022 | 4 | 0.521930842 |
| 4 | -0.012 | 0.010 | 4 | -0.039 | 0.051 | 4 | -0.002 | 0.039 | 4 | 0.522162915 |
| 3 | -0.042 | 0.017 | 3 | -0.038 | 0.065 | 3 | -0.010 | 0.071 | 3 | 0.522394987 |
| 4 | -0.038 | 0.050 | 4 | -0.028 | 0.072 | 4 | -0.005 | 0.033 | 4 | 0.52262706 |
| 4 | -0.011 | 0.040 | 4 | -0.014 | 0.032 | 4 | -0.017 | 0.020 | 4 | 0.522859132 |
| 4 | 0.013 | 0.019 | 4 | -0.037 | 0.034 | 4 | -0.050 | 0.039 | 4 | 0.523091204 |
| 3 | -0.040 | 0.073 | 4 | -0.051 | 0.050 | 4 | 0.016 | 0.027 | 4 | 0.523323277 |
| 4 | -0.010 | 0.033 | 4 | -0.004 | 0.051 | 4 | -0.008 | 0.024 | 4 | 0.523555349 |
| 4 | -0.012 | 0.023 | 4 | -0.017 | 0.044 | 4 | -0.007 | 0.027 | 4 | 0.523787422 |
| 4 | -0.011 | 0.040 | 4 | 0.007 | 0.038 | 4 | 0.001 | 0.016 | 4 | 0.524019494 |
| 4 | 0.020 | 0.029 | 4 | -0.024 | 0.059 | 4 | 0.004 | 0.037 | 4 | 0.524251566 |
| 4 | 0.010 | 0.019 | 4 | -0.024 | 0.028 | 4 | -0.019 | 0.015 | 4 | 0.524483639 |
| 4 | 0.013 | 0.026 | 4 | -0.021 | 0.049 | 4 | 0.016 | 0.028 | 4 | 0.524715711 |
| 4 | 0.007 | 0.028 | 4 | 0.000 | 0.065 | 4 | -0.001 | 0.048 | 4 | 0.524947784 |
| 4 | -0.023 | 0.017 | 4 | -0.048 | 0.056 | 4 | -0.034 | 0.030 | 4 | 0.525179856 |
| 4 | 0.015 | 0.015 | 4 | 0.009 | 0.041 | 4 | -0.005 | 0.025 | 4 | 0.525411929 |
| 4 | -0.010 | 0.042 | 4 | -0.011 | 0.064 | 4 | 0.002 | 0.033 | 4 | 0.525644001 |
| 2 | -0.036 | 0.004 | 2 | 0.024 | 0.021 | 2 | -0.057 | 0.011 | 2 | 0.525876073 |
| 4 | -0.016 | 0.013 | 4 | -0.002 | 0.037 | 4 | 0.016 | 0.024 | 4 | 0.526108146 |
| 4 | 0.015 | 0.024 | 4 | -0.020 | 0.020 | 4 | -0.008 | 0.018 | 4 | 0.526340218 |
| 4 | -0.017 | 0.059 | 4 | -0.002 | 0.057 | 4 | 0.000 | 0.049 | 4 | 0.526572291 |
| 4 | 0.011 | 0.036 | 4 | 0.015 | 0.023 | 4 | 0.003 | 0.023 | 4 | 0.526804363 |
| 4 | 0.006 | 0.040 | 4 | -0.064 | 0.048 | 4 | -0.024 | 0.048 | 4 | 0.527036435 |
| 4 | -0.001 | 0.049 | 4 | -0.019 | 0.059 | 4 | -0.009 | 0.043 | 4 | 0.527268508 |
| 2 | -0.011 | 0.009 | 2 | -0.008 | 0.032 | 2 | -0.026 | 0.066 | 2 | 0.52750058 |
| 4 | -0.011 | 0.026 | 4 | 0.010 | 0.028 | 4 | 0.027 | 0.019 | 4 | 0.527732653 |
| 4 | -0.005 | 0.047 | 4 | -0.011 | 0.020 | 4 | -0.017 | 0.013 | 4 | 0.527964725 |
| 4 | -0.012 | 0.039 | 4 | -0.049 | 0.036 | 4 | 0.006 | 0.015 | 4 | 0.528196797 |
| 2 | 0.015 | 0.046 | 2 | 0.038 | 0.010 | 2 | -0.022 | 0.010 | 2 | 0.52842887 |
| 3 | -0.131 | 0.017 | 4 | -0.014 | 0.060 | 4 | -0.020 | 0.045 | 4 | 0.528660942 |
| 4 | -0.008 | 0.017 | 4 | -0.038 | 0.038 | 4 | 0.054 | 0.016 | 4 | 0.528893015 |
| 4 | 0.035 | 0.081 | 4 | -0.018 | 0.053 | 4 | -0.014 | 0.069 | 4 | 0.529125087 |
| 4 | 0.018 | 0.013 | 4 | -0.029 | 0.050 | 4 | -0.064 | 0.042 | 4 | 0.529357159 |
| 4 | -0.038 | 0.032 | 4 | -0.010 | 0.038 | 4 | -0.016 | 0.024 | 4 | 0.529589232 |
| 4 | -0.034 | 0.017 | 4 | -0.009 | 0.047 | 4 | -0.004 | 0.027 | 4 | 0.529821304 |
| 4 | 0.023 | 0.042 | 4 | 0.001 | 0.026 | 4 | -0.021 | 0.027 | 4 | 0.530053377 |
| 4 | -0.015 | 0.038 | 4 | -0.006 | 0.040 | 4 | 0.007 | 0.027 | 4 | 0.530285449 |
| 4 | -0.009 | 0.035 | 4 | -0.039 | 0.033 | 4 | -0.023 | 0.031 | 4 | 0.530517521 |
| 4 | -0.005 | 0.008 | 4 | 0.001 | 0.022 | 4 | 0.016 | 0.021 | 4 | 0.530749594 |

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|---|---|---|---|---|---|---|---|---|---|---|
| 4 | 0.088 | 0.027 | 4 | 0.028 | 0.033 | 4 | -0.002 | 0.036 | 4 | 0.530981666 |
| 4 | -0.007 | 0.020 | 4 | -0.003 | 0.032 | 4 | 0.014 | 0.033 | 4 | 0.531213739 |
| 4 | -0.021 | 0.048 | 4 | 0.006 | 0.063 | 4 | 0.015 | 0.022 | 4 | 0.531445811 |
| 3 | 0.001 | 0.019 | 3 | -0.032 | 0.030 | 3 | 0.028 | 0.058 | 3 | 0.531677883 |
| 4 | -0.018 | 0.049 | 4 | 0.030 | 0.013 | 4 | -0.002 | 0.016 | 4 | 0.531909956 |
| 4 | -0.022 | 0.031 | 4 | -0.013 | 0.016 | 4 | -0.005 | 0.010 | 4 | 0.532142028 |
| 4 | 0.080 | 0.045 | 4 | -0.032 | 0.032 | 4 | 0.040 | 0.037 | 4 | 0.532374101 |
| 4 | 0.012 | 0.015 | 4 | -0.004 | 0.034 | 4 | 0.019 | 0.015 | 4 | 0.532606173 |
| 4 | -0.022 | 0.028 | 4 | -0.052 | 0.070 | 4 | -0.012 | 0.037 | 4 | 0.532838246 |
| 3 | -0.029 | 0.029 | 3 | 0.030 | 0.021 | 3 | -0.002 | 0.027 | 3 | 0.533070318 |
| 4 | 0.015 | 0.023 | 4 | -0.021 | 0.026 | 4 | -0.005 | 0.010 | 4 | 0.53330239 |
| 4 | 0.018 | 0.031 | 4 | -0.011 | 0.071 | 4 | 0.014 | 0.054 | 4 | 0.533534463 |
| 4 | -0.015 | 0.021 | 4 | -0.039 | 0.028 | 4 | 0.002 | 0.008 | 4 | 0.533766535 |
| 4 | -0.025 | 0.016 | 4 | -0.010 | 0.069 | 4 | 0.030 | 0.065 | 4 | 0.533998608 |
| 3 | -0.025 | 0.027 | 3 | 0.001 | 0.033 | 3 | 0.057 | 0.048 | 3 | 0.53423068 |
| 4 | -0.040 | 0.062 | 4 | -0.050 | 0.093 | 4 | -0.019 | 0.048 | 4 | 0.534462752 |
| 4 | -0.014 | 0.021 | 4 | 0.015 | 0.035 | 4 | -0.001 | 0.031 | 4 | 0.534694825 |
| 4 | -0.021 | 0.045 | 4 | 0.009 | 0.052 | 4 | 0.001 | 0.036 | 4 | 0.534926897 |
| 4 | -0.015 | 0.014 | 4 | -0.020 | 0.038 | 4 | -0.014 | 0.058 | 4 | 0.53515897 |
| 4 | -0.005 | 0.030 | 4 | -0.005 | 0.061 | 4 | 0.019 | 0.041 | 4 | 0.535391042 |
| 3 | 0.011 | 0.029 | 4 | 0.012 | 0.017 | 4 | 0.009 | 0.021 | 4 | 0.535623114 |
| 4 | 0.024 | 0.022 | 4 | -0.012 | 0.056 | 4 | -0.033 | 0.033 | 4 | 0.535855187 |
| 4 | 0.000 | 0.011 | 4 | -0.025 | 0.043 | 4 | -0.015 | 0.013 | 4 | 0.536087259 |
| 4 | -0.005 | 0.028 | 4 | -0.030 | 0.056 | 4 | -0.026 | 0.032 | 4 | 0.536319332 |
| 4 | 0.024 | 0.044 | 4 | -0.015 | 0.071 | 4 | -0.004 | 0.030 | 4 | 0.536551404 |
| 4 | -0.003 | 0.020 | 4 | 0.016 | 0.038 | 4 | 0.004 | 0.015 | 4 | 0.536783476 |
| 4 | -0.013 | 0.024 | 4 | -0.021 | 0.050 | 4 | 0.002 | 0.029 | 4 | 0.537015549 |
| 2 | -0.032 | 0.005 | 2 | -0.011 | 0.030 | 2 | 0.000 | 0.019 | 2 | 0.537247621 |
| 4 | -0.002 | 0.051 | 4 | -0.024 | 0.047 | 4 | -0.019 | 0.041 | 4 | 0.537479694 |
| 3 | -0.021 | 0.031 | 4 | -0.015 | 0.038 | 4 | 0.074 | 0.028 | 4 | 0.537711766 |
| 3 | 0.028 | 0.022 | 3 | 0.005 | 0.001 | 3 | -0.038 | 0.018 | 3 | 0.537943838 |
| 4 | 0.000 | 0.027 | 4 | -0.051 | 0.053 | 4 | -0.037 | 0.028 | 4 | 0.538175911 |
| 4 | 0.004 | 0.034 | 4 | 0.040 | 0.043 | 4 | 0.030 | 0.045 | 4 | 0.538407983 |
| 4 | 0.031 | 0.028 | 4 | -0.054 | 0.042 | 4 | 0.014 | 0.007 | 4 | 0.538640056 |
| 4 | -0.012 | 0.028 | 4 | -0.011 | 0.042 | 4 | 0.003 | 0.032 | 4 | 0.538872128 |
| 4 | -0.006 | 0.031 | 4 | -0.033 | 0.061 | 4 | -0.008 | 0.040 | 4 | 0.539104201 |
| 3 | -0.096 | 0.075 | 4 | -0.046 | 0.097 | 4 | 0.033 | 0.026 | 4 | 0.539336273 |
| 4 | -0.011 | 0.016 | 4 | 0.003 | 0.034 | 4 | 0.002 | 0.028 | 4 | 0.539568345 |
| 3 | -0.016 | 0.012 | 4 | -0.050 | 0.040 | 4 | -0.006 | 0.038 | 4 | 0.539800418 |
| 3 | -0.099 | 0.016 | 3 | -0.094 | 0.032 | 3 | 0.211 | 0.037 | 3 | 0.54003249 |
| 4 | -0.020 | 0.027 | 4 | -0.002 | 0.028 | 4 | -0.017 | 0.015 | 4 | 0.540264563 |
| 4 | 0.017 | 0.028 | 4 | -0.014 | 0.061 | 4 | -0.035 | 0.037 | 4 | 0.540496635 |
| 2 | 0.018 | 0.027 | 2 | -0.015 | 0.008 | 2 | 0.022 | 0.020 | 2 | 0.540728707 |
| 2 | 0.037 | 0.035 | 2 | -0.108 | 0.074 | 2 | -0.057 | 0.048 | 2 | 0.54096078 |
| 4 | -0.041 | 0.029 | 4 | -0.023 | 0.040 | 4 | -0.037 | 0.025 | 4 | 0.541192852 |
| 4 | 0.036 | 0.044 | 4 | -0.049 | 0.068 | 4 | -0.018 | 0.032 | 4 | 0.541424925 |
| 4 | -0.018 | 0.032 | 4 | -0.041 | 0.023 | 4 | 0.029 | 0.014 | 4 | 0.541656997 |
| 4 | -0.001 | 0.022 | 4 | 0.046 | 0.011 | 4 | -0.031 | 0.032 | 4 | 0.541889069 |
| 3 | -0.002 | 0.022 | 4 | -0.007 | 0.025 | 4 | -0.011 | 0.037 | 4 | 0.542121142 |
| 3 | -0.065 | 0.014 | 3 | 0.003 | 0.022 | 3 | 0.122 | 0.026 | 3 | 0.542353214 |
| 2 | 0.020 | 0.021 | 2 | -0.020 | 0.007 | 2 | 0.005 | 0.008 | 2 | 0.542585287 |
| 4 | -0.025 | 0.004 | 4 | -0.002 | 0.049 | 4 | -0.070 | 0.026 | 4 | 0.542817359 |

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|---|---|---|---|---|---|---|---|---|---|---|
| 2 | 0.007 | 0.011 | 2 | -0.039 | 0.029 | 2 | -0.013 | 0.004 | 2 | 0.543049431 |
| 2 | 0.045 | 0.007 | 2 | -0.024 | 0.046 | 2 | 0.003 | 0.035 | 2 | 0.543281504 |
| 4 | -0.006 | 0.049 | 4 | -0.025 | 0.037 | 4 | -0.011 | 0.046 | 4 | 0.543513576 |
| 4 | -0.018 | 0.016 | 4 | 0.003 | 0.026 | 4 | 0.031 | 0.033 | 4 | 0.543745649 |
| 2 | -0.038 | 0.030 | 2 | -0.044 | 0.003 | 2 | -0.025 | 0.008 | 2 | 0.543977721 |
| 4 | -0.004 | 0.014 | 4 | -0.026 | 0.038 | 4 | -0.018 | 0.023 | 4 | 0.544209793 |
| 4 | -0.005 | 0.030 | 4 | 0.005 | 0.027 | 4 | 0.014 | 0.021 | 4 | 0.544441866 |
| 3 | 0.015 | 0.045 | 3 | -0.033 | 0.042 | 3 | 0.002 | 0.082 | 3 | 0.544673938 |
| 4 | 0.005 | 0.018 | 4 | 0.007 | 0.027 | 4 | 0.005 | 0.028 | 4 | 0.544906011 |
| 4 | -0.010 | 0.032 | 4 | -0.020 | 0.033 | 4 | -0.004 | 0.014 | 4 | 0.545138083 |
| 4 | 0.030 | 0.011 | 4 | -0.017 | 0.046 | 4 | -0.011 | 0.009 | 4 | 0.545370155 |
| 4 | -0.065 | 0.028 | 4 | 0.005 | 0.026 | 4 | -0.023 | 0.016 | 4 | 0.545602228 |
| 4 | -0.035 | 0.031 | 4 | -0.013 | 0.055 | 4 | -0.007 | 0.060 | 4 | 0.5458343 |
| 4 | -0.015 | 0.032 | 4 | 0.009 | 0.046 | 4 | -0.001 | 0.030 | 4 | 0.546066373 |
| 4 | -0.010 | 0.019 | 4 | -0.032 | 0.039 | 4 | -0.012 | 0.035 | 4 | 0.546298445 |
| 2 | -0.029 | 0.010 | 2 | 0.030 | 0.010 | 2 | 0.010 | 0.009 | 2 | 0.546530518 |
| 4 | -0.007 | 0.013 | 4 | -0.009 | 0.039 | 4 | -0.015 | 0.030 | 4 | 0.54676259 |
| 4 | 0.010 | 0.015 | 4 | 0.001 | 0.038 | 4 | 0.009 | 0.017 | 4 | 0.546994662 |
| 4 | 0.014 | 0.014 | 4 | 0.009 | 0.025 | 4 | -0.021 | 0.035 | 4 | 0.547226735 |
| 4 | 0.001 | 0.028 | 4 | -0.040 | 0.097 | 4 | -0.025 | 0.066 | 4 | 0.547458807 |
| 4 | -0.001 | 0.013 | 4 | -0.029 | 0.056 | 4 | -0.003 | 0.027 | 4 | 0.54769088 |
| 2 | 0.010 | 0.018 | 4 | -0.055 | 0.057 | 4 | -0.002 | 0.032 | 4 | 0.547922952 |
| 4 | -0.038 | 0.028 | 4 | 0.054 | 0.034 | 4 | -0.076 | 0.037 | 4 | 0.548155024 |
| 4 | -0.033 | 0.029 | 4 | -0.034 | 0.034 | 4 | 0.006 | 0.011 | 4 | 0.548387097 |
| 3 | 0.000 | 0.025 | 3 | -0.041 | 0.062 | 3 | -0.007 | 0.082 | 3 | 0.548619169 |
| 4 | 0.007 | 0.029 | 4 | -0.048 | 0.065 | 4 | -0.001 | 0.044 | 4 | 0.548851242 |
| 2 | -0.007 | 0.039 | 2 | 0.002 | 0.018 | 2 | 0.012 | 0.016 | 2 | 0.549083314 |
| 3 | 0.000 | 0.062 | 3 | -0.039 | 0.041 | 3 | -0.006 | 0.026 | 3 | 0.549315386 |
| 4 | -0.012 | 0.027 | 4 | -0.010 | 0.020 | 4 | -0.009 | 0.009 | 4 | 0.549547459 |
| 4 | -0.004 | 0.032 | 4 | -0.048 | 0.047 | 4 | -0.004 | 0.046 | 4 | 0.549779531 |
| 4 | -0.019 | 0.022 | 4 | -0.007 | 0.032 | 4 | 0.015 | 0.040 | 4 | 0.550011604 |
| 4 | 0.035 | 0.020 | 4 | -0.006 | 0.023 | 4 | 0.020 | 0.043 | 4 | 0.550243676 |
| 4 | 0.023 | 0.019 | 4 | -0.014 | 0.028 | 4 | -0.040 | 0.019 | 4 | 0.550475748 |
| 2 | -0.031 | 0.000 | 2 | -0.044 | 0.017 | 2 | 0.001 | 0.039 | 2 | 0.550707821 |
| 2 | 0.022 | 0.037 | 2 | -0.017 | 0.051 | 2 | -0.004 | 0.023 | 2 | 0.550939893 |
| 4 | -0.024 | 0.043 | 4 | -0.013 | 0.026 | 4 | 0.002 | 0.028 | 4 | 0.551171966 |
| 4 | -0.001 | 0.031 | 4 | -0.024 | 0.040 | 4 | -0.017 | 0.018 | 4 | 0.551404038 |
| 4 | 0.005 | 0.018 | 4 | -0.018 | 0.039 | 4 | 0.006 | 0.023 | 4 | 0.55163611 |
| 4 | -0.001 | 0.021 | 4 | -0.022 | 0.043 | 4 | 0.021 | 0.037 | 4 | 0.551868183 |
| 4 | -0.030 | 0.013 | 4 | -0.035 | 0.031 | 4 | 0.034 | 0.025 | 4 | 0.552100255 |
| 4 | -0.016 | 0.016 | 4 | -0.014 | 0.043 | 4 | -0.011 | 0.042 | 4 | 0.552332328 |
| 4 | -0.013 | 0.014 | 4 | -0.006 | 0.054 | 4 | -0.006 | 0.042 | 4 | 0.5525644 |
| 4 | 0.002 | 0.028 | 4 | -0.041 | 0.063 | 4 | -0.018 | 0.036 | 4 | 0.552796472 |
| 4 | 0.023 | 0.037 | 4 | -0.035 | 0.068 | 4 | -0.023 | 0.034 | 4 | 0.553028545 |
| 4 | 0.003 | 0.024 | 4 | -0.031 | 0.041 | 4 | 0.014 | 0.039 | 4 | 0.553260617 |
| 4 | -0.003 | 0.058 | 4 | -0.009 | 0.025 | 4 | -0.003 | 0.038 | 4 | 0.55349269 |
| 4 | 0.006 | 0.022 | 4 | 0.016 | 0.054 | 4 | -0.014 | 0.077 | 4 | 0.553724762 |
| 3 | -0.011 | 0.015 | 4 | -0.010 | 0.036 | 4 | 0.001 | 0.017 | 4 | 0.553956835 |
| 4 | -0.037 | 0.010 | 4 | -0.013 | 0.034 | 4 | 0.014 | 0.045 | 4 | 0.554188907 |
| 4 | -0.030 | 0.043 | 4 | 0.027 | 0.069 | 4 | -0.015 | 0.037 | 4 | 0.554420979 |
| 2 | -0.045 | 0.055 | 3 | -0.033 | 0.023 | 3 | 0.023 | 0.033 | 3 | 0.554653052 |
| 4 | 0.027 | 0.031 | 4 | -0.035 | 0.034 | 4 | -0.029 | 0.048 | 4 | 0.554885124 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 4 | -0.022 | 0.038 | 4 | -0.011 | 0.037 | 4 | 0.022 | 0.016 | 4 | 0.555117197 |
| 4 | 0.025 | 0.030 | 4 | -0.037 | 0.022 | 4 | -0.014 | 0.021 | 4 | 0.555349269 |
| 4 | 0.037 | 0.027 | 4 | -0.014 | 0.046 | 4 | -0.006 | 0.039 | 4 | 0.555581341 |
| 4 | -0.006 | 0.034 | 4 | -0.038 | 0.040 | 4 | -0.041 | 0.017 | 4 | 0.555813414 |
| 4 | 0.004 | 0.038 | 4 | -0.009 | 0.027 | 4 | -0.015 | 0.032 | 4 | 0.556045486 |
| 4 | 0.026 | 0.011 | 4 | -0.038 | 0.063 | 4 | -0.032 | 0.024 | 4 | 0.556277559 |
| 4 | -0.056 | 0.012 | 4 | 0.027 | 0.016 | 4 | 0.024 | 0.012 | 4 | 0.556509631 |
| 2 | -0.013 | 0.006 | 2 | -0.011 | 0.007 | 2 | -0.014 | 0.009 | 2 | 0.556741703 |
| 4 | -0.056 | 0.041 | 4 | -0.012 | 0.072 | 4 | 0.022 | 0.037 | 4 | 0.556973776 |
| 4 | 0.049 | 0.048 | 4 | -0.057 | 0.018 | 4 | -0.091 | 0.014 | 4 | 0.557205848 |
| 3 | -0.013 | 0.051 | 4 | -0.012 | 0.043 | 4 | -0.029 | 0.040 | 4 | 0.557437921 |
| 4 | 0.008 | 0.024 | 4 | -0.019 | 0.037 | 4 | -0.003 | 0.035 | 4 | 0.557669993 |
| 4 | -0.020 | 0.026 | 4 | 0.009 | 0.035 | 4 | 0.030 | 0.011 | 4 | 0.557902065 |
| 4 | 0.004 | 0.005 | 4 | -0.051 | 0.041 | 4 | -0.014 | 0.021 | 4 | 0.558134138 |
| 3 | -0.009 | 0.009 | 4 | 0.005 | 0.057 | 4 | -0.001 | 0.034 | 4 | 0.55836621 |
| 2 | -0.003 | 0.049 | 4 | 0.036 | 0.054 | 4 | -0.007 | 0.014 | 4 | 0.558598283 |
| 4 | -0.002 | 0.039 | 4 | -0.039 | 0.052 | 4 | 0.019 | 0.023 | 4 | 0.558830355 |
| 4 | -0.022 | 0.039 | 4 | 0.001 | 0.060 | 4 | -0.014 | 0.036 | 4 | 0.559062427 |
| 4 | 0.004 | 0.023 | 4 | 0.000 | 0.037 | 4 | 0.011 | 0.029 | 4 | 0.5592945 |
| 4 | 0.072 | 0.013 | 4 | 0.030 | 0.035 | 4 | 0.018 | 0.013 | 4 | 0.559526572 |
| 2 | 0.030 | 0.022 | 2 | 0.053 | 0.022 | 2 | -0.007 | 0.013 | 2 | 0.559758645 |
| 4 | -0.026 | 0.039 | 4 | -0.039 | 0.050 | 4 | 0.031 | 0.019 | 4 | 0.559990717 |
| 4 | -0.024 | 0.027 | 4 | 0.048 | 0.055 | 4 | 0.009 | 0.010 | 4 | 0.56022279 |
| 4 | -0.014 | 0.026 | 4 | -0.033 | 0.050 | 4 | 0.007 | 0.021 | 4 | 0.560454862 |
| 4 | -0.014 | 0.035 | 4 | -0.009 | 0.058 | 4 | 0.018 | 0.031 | 4 | 0.560686934 |
| 4 | 0.000 | 0.047 | 4 | 0.005 | 0.066 | 4 | 0.018 | 0.063 | 4 | 0.560919007 |
| 4 | 0.004 | 0.019 | 4 | -0.005 | 0.056 | 4 | 0.026 | 0.017 | 4 | 0.561151079 |
| 4 | 0.001 | 0.038 | 4 | -0.004 | 0.046 | 4 | 0.013 | 0.033 | 4 | 0.561383152 |
| 4 | -0.008 | 0.034 | 4 | 0.025 | 0.035 | 4 | 0.007 | 0.027 | 4 | 0.561615224 |
| 4 | 0.022 | 0.014 | 4 | 0.005 | 0.046 | 4 | -0.028 | 0.025 | 4 | 0.561847296 |
| 4 | 0.001 | 0.020 | 4 | 0.001 | 0.029 | 4 | -0.025 | 0.032 | 4 | 0.562079369 |
| 4 | -0.005 | 0.010 | 4 | 0.054 | 0.012 | 4 | -0.071 | 0.122 | 4 | 0.562311441 |
| 4 | -0.018 | 0.018 | 4 | -0.019 | 0.035 | 4 | 0.038 | 0.028 | 4 | 0.562543514 |
| 4 | -0.018 | 0.037 | 4 | -0.001 | 0.025 | 4 | -0.019 | 0.039 | 4 | 0.562775586 |
| 4 | -0.011 | 0.026 | 4 | -0.047 | 0.128 | 4 | 0.009 | 0.098 | 4 | 0.563007658 |
| 4 | 0.009 | 0.021 | 4 | -0.017 | 0.065 | 4 | 0.012 | 0.024 | 4 | 0.563239731 |
| 4 | 0.005 | 0.025 | 4 | 0.027 | 0.010 | 4 | -0.001 | 0.025 | 4 | 0.563471803 |
| 4 | 0.047 | 0.023 | 4 | 0.004 | 0.061 | 4 | -0.031 | 0.028 | 4 | 0.563703876 |
| 4 | 0.017 | 0.034 | 4 | -0.024 | 0.037 | 4 | -0.009 | 0.025 | 4 | 0.563935948 |
| 3 | -0.060 | 0.027 | 3 | 0.028 | 0.006 | 3 | 0.034 | 0.004 | 3 | 0.56416802 |
| 4 | -0.003 | 0.044 | 4 | 0.005 | 0.035 | 4 | 0.002 | 0.019 | 4 | 0.564400093 |
| 4 | 0.041 | 0.036 | 4 | -0.029 | 0.019 | 4 | 0.011 | 0.037 | 4 | 0.564632165 |
| 4 | -0.022 | 0.028 | 4 | 0.003 | 0.041 | 4 | 0.017 | 0.010 | 4 | 0.564864238 |
| 2 | 0.009 | 0.021 | 2 | -0.034 | 0.035 | 2 | 0.003 | 0.016 | 2 | 0.56509631 |
| 4 | 0.003 | 0.020 | 4 | -0.033 | 0.012 | 4 | 0.009 | 0.007 | 4 | 0.565328382 |
| 4 | -0.011 | 0.032 | 4 | 0.003 | 0.037 | 4 | -0.003 | 0.022 | 4 | 0.565560455 |
| 4 | -0.020 | 0.034 | 4 | -0.011 | 0.050 | 4 | -0.028 | 0.032 | 4 | 0.565792527 |
| 4 | 0.020 | 0.026 | 4 | 0.040 | 0.022 | 4 | 0.012 | 0.025 | 4 | 0.5660246 |
| 4 | -0.046 | 0.086 | 4 | -0.005 | 0.072 | 4 | -0.031 | 0.054 | 4 | 0.566256672 |
| 4 | 0.011 | 0.032 | 4 | -0.055 | 0.067 | 4 | -0.055 | 0.045 | 4 | 0.566488744 |
| 4 | -0.001 | 0.023 | 4 | 0.009 | 0.032 | 4 | -0.010 | 0.012 | 4 | 0.566720817 |
| 4 | 0.013 | 0.040 | 4 | 0.035 | 0.036 | 4 | -0.055 | 0.050 | 4 | 0.566952889 |

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|---|---|---|---|---|---|---|---|---|---|---|
| 3 | -0.008 | 0.016 | 3 | 0.023 | 0.038 | 3 | -0.007 | 0.036 | 3 | 0.567184962 |
| 4 | 0.029 | 0.015 | 4 | -0.011 | 0.017 | 4 | 0.001 | 0.036 | 4 | 0.567417034 |
| 4 | 0.018 | 0.032 | 4 | -0.014 | 0.043 | 4 | -0.006 | 0.034 | 4 | 0.567649107 |
| 4 | 0.004 | 0.023 | 4 | -0.043 | 0.036 | 4 | 0.017 | 0.028 | 4 | 0.567881179 |
| 4 | -0.019 | 0.013 | 4 | -0.019 | 0.048 | 4 | 0.021 | 0.064 | 4 | 0.568113251 |
| 4 | -0.056 | 0.031 | 4 | 0.011 | 0.018 | 4 | 0.008 | 0.007 | 4 | 0.568345324 |
| 4 | 0.008 | 0.063 | 4 | 0.003 | 0.068 | 4 | 0.026 | 0.080 | 4 | 0.568577396 |
| 4 | -0.020 | 0.034 | 4 | -0.023 | 0.037 | 4 | 0.028 | 0.021 | 4 | 0.568809469 |
| | -0.136 | 0.018 | 2 | 0.012 | 0.035 | 2 | 0.111 | 0.042 | 2 | 0.569041541 |
| 4 | 0.003 | 0.020 | 4 | -0.014 | 0.029 | 4 | -0.007 | 0.015 | 4 | 0.569273613 |
| 4 | 0.030 | 0.014 | 4 | -0.009 | 0.039 | 4 | -0.003 | 0.025 | 4 | 0.569505686 |
| 4 | 0.012 | 0.019 | 4 | 0.030 | 0.024 | 4 | 0.007 | 0.011 | 4 | 0.569737758 |
| 4 | 0.026 | 0.025 | 4 | 0.013 | 0.033 | 4 | -0.022 | 0.022 | 4 | 0.569969831 |
| 4 | -0.011 | 0.020 | 4 | -0.003 | 0.050 | 4 | 0.002 | 0.031 | 4 | 0.570201903 |
| 3 | 0.023 | 0.008 | 3 | -0.010 | 0.048 | 3 | -0.024 | 0.025 | 3 | 0.570433975 |
| 4 | -0.007 | 0.037 | 4 | -0.059 | 0.039 | 4 | -0.062 | 0.018 | 4 | 0.570666048 |
| 3 | 0.034 | 0.046 | 4 | -0.028 | 0.041 | 4 | 0.006 | 0.028 | 4 | 0.57089812 |
| 4 | -0.034 | 0.026 | 4 | -0.006 | 0.049 | 4 | -0.051 | 0.019 | 4 | 0.571130193 |
| 4 | 0.039 | 0.016 | 4 | -0.047 | 0.036 | 4 | -0.005 | 0.019 | 4 | 0.571362265 |
| 3 | -0.010 | 0.019 | 3 | -0.016 | 0.039 | 3 | 0.001 | 0.012 | 3 | 0.571594337 |
| 4 | 0.015 | 0.050 | 4 | -0.018 | 0.054 | 4 | 0.016 | 0.050 | 4 | 0.57182641 |
| 4 | 0.009 | 0.052 | 4 | 0.035 | 0.043 | 4 | 0.023 | 0.033 | 4 | 0.572058482 |
| 4 | 0.011 | 0.026 | 4 | 0.023 | 0.040 | 4 | -0.014 | 0.017 | 4 | 0.572290555 |
| 4 | 0.042 | 0.033 | 4 | -0.019 | 0.041 | 4 | -0.054 | 0.135 | 4 | 0.572522627 |
| 4 | -0.005 | 0.029 | 4 | -0.002 | 0.050 | 4 | -0.030 | 0.021 | 4 | 0.572754699 |
| 4 | 0.047 | 0.015 | 4 | -0.025 | 0.040 | 4 | -0.005 | 0.017 | 4 | 0.572986772 |
| 4 | 0.044 | 0.042 | 4 | -0.020 | 0.040 | 4 | -0.042 | 0.033 | 4 | 0.573218844 |
| 4 | 0.004 | 0.027 | 4 | 0.006 | 0.068 | 4 | -0.028 | 0.051 | 4 | 0.573450917 |
| 4 | 0.005 | 0.047 | 4 | -0.008 | 0.032 | 4 | 0.031 | 0.022 | 4 | 0.573682989 |
| 4 | 0.026 | 0.034 | 4 | -0.013 | 0.050 | 4 | 0.006 | 0.054 | 4 | 0.573915061 |
| 4 | -0.015 | 0.016 | 4 | -0.006 | 0.048 | 4 | -0.009 | 0.045 | 4 | 0.574147134 |
| 4 | -0.065 | 0.034 | 4 | -0.018 | 0.052 | 4 | 0.013 | 0.050 | 4 | 0.574379206 |
| 4 | 0.012 | 0.035 | 4 | -0.052 | 0.072 | 4 | 0.006 | 0.043 | 4 | 0.574611279 |
| 4 | -0.045 | 0.040 | 4 | -0.025 | 0.025 | 4 | 0.000 | 0.013 | 4 | 0.574843351 |
| 4 | -0.016 | 0.032 | 4 | -0.020 | 0.052 | 4 | 0.001 | 0.062 | 4 | 0.575075424 |
| 3 | -0.132 | 0.025 | 4 | 0.095 | 0.036 | 4 | 0.124 | 0.029 | 4 | 0.575307496 |
| 4 | -0.004 | 0.021 | 4 | -0.017 | 0.018 | 4 | 0.024 | 0.005 | 4 | 0.575539568 |
| 4 | 0.019 | 0.015 | 4 | -0.014 | 0.032 | 4 | 0.004 | 0.028 | 4 | 0.575771641 |
| 3 | -0.111 | 0.062 | 3 | -0.008 | 0.080 | 3 | 0.005 | 0.071 | 3 | 0.576003713 |
| 4 | 0.011 | 0.029 | 4 | -0.019 | 0.033 | 4 | 0.000 | 0.024 | 4 | 0.576235786 |
| 4 | 0.004 | 0.017 | 4 | 0.000 | 0.041 | 4 | 0.007 | 0.033 | 4 | 0.576467858 |
| 4 | -0.071 | 0.064 | 4 | -0.009 | 0.040 | 4 | 0.028 | 0.025 | 4 | 0.57669993 |
| 4 | 0.043 | 0.019 | 4 | -0.036 | 0.046 | 4 | -0.008 | 0.066 | 4 | 0.576932003 |
| 4 | -0.020 | 0.022 | 4 | -0.023 | 0.036 | 4 | 0.016 | 0.036 | 4 | 0.577164075 |
| 4 | 0.003 | 0.022 | 4 | 0.006 | 0.066 | 4 | -0.054 | 0.082 | 4 | 0.577396148 |
| 4 | 0.033 | 0.018 | 4 | -0.008 | 0.026 | 4 | 0.025 | 0.023 | 4 | 0.57762822 |
| 4 | 0.005 | 0.059 | 4 | -0.006 | 0.021 | 4 | -0.020 | 0.044 | 4 | 0.577860292 |
| 4 | -0.009 | 0.035 | 4 | -0.015 | 0.084 | 4 | -0.008 | 0.041 | 4 | 0.578092365 |
| 4 | 0.031 | 0.061 | 4 | -0.010 | 0.020 | 4 | 0.031 | 0.009 | 4 | 0.578324437 |
| 2 | 0.002 | 0.000 | 2 | 0.029 | 0.031 | 2 | 0.003 | 0.030 | 2 | 0.57855651 |
| 4 | 0.004 | 0.025 | 4 | 0.033 | 0.036 | 4 | 0.002 | 0.025 | 4 | 0.578788582 |
| 4 | 0.018 | 0.024 | 4 | -0.003 | 0.055 | 4 | 0.021 | 0.036 | 4 | 0.579020654 |

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|---|---|---|---|---|---|---|---|---|---|---|
| 4 | 0.011 | 0.014 | 4 | -0.008 | 0.040 | 4 | 0.042 | 0.011 | 4 | 0.579252727 |
| 4 | -0.088 | 0.038 | 4 | -0.017 | 0.058 | 4 | -0.061 | 0.037 | 4 | 0.579484799 |
| 3 | 0.040 | 0.030 | 4 | -0.023 | 0.058 | 4 | -0.020 | 0.051 | 4 | 0.579716872 |
| 4 | -0.004 | 0.012 | 4 | 0.049 | 0.016 | 4 | -0.006 | 0.026 | 4 | 0.579948944 |
| 4 | -0.009 | 0.018 | 4 | 0.027 | 0.046 | 4 | 0.022 | 0.044 | 4 | 0.580181016 |
| 4 | 0.000 | 0.036 | 4 | 0.045 | 0.045 | 4 | -0.030 | 0.020 | 4 | 0.580413089 |
| 4 | -0.013 | 0.039 | 4 | -0.020 | 0.027 | 4 | -0.038 | 0.018 | 4 | 0.580645161 |
| 4 | 0.019 | 0.024 | 4 | 0.014 | 0.061 | 4 | -0.036 | 0.061 | 4 | 0.580877234 |
| 4 | -0.019 | 0.044 | 4 | -0.014 | 0.067 | 4 | 0.001 | 0.023 | 4 | 0.581109306 |
| 4 | -0.008 | 0.020 | 4 | -0.031 | 0.024 | 4 | 0.019 | 0.015 | 4 | 0.581341379 |
| 4 | 0.009 | 0.026 | 4 | -0.024 | 0.065 | 4 | 0.012 | 0.041 | 4 | 0.581573451 |
| 3 | 0.002 | 0.059 | 4 | 0.021 | 0.022 | 4 | 0.078 | 0.015 | 4 | 0.581805523 |
| 4 | 0.035 | 0.024 | 4 | 0.025 | 0.062 | 4 | 0.007 | 0.058 | 4 | 0.582037596 |
| 4 | -0.008 | 0.024 | 4 | -0.045 | 0.029 | 4 | -0.016 | 0.017 | 4 | 0.582269668 |
| 2 | -0.007 | 0.011 | 2 | 0.010 | 0.046 | 2 | -0.025 | 0.043 | 2 | 0.582501741 |
| 4 | 0.022 | 0.007 | 4 | 0.002 | 0.041 | 4 | 0.013 | 0.034 | 4 | 0.582733813 |
| 4 | -0.013 | 0.036 | 4 | -0.013 | 0.032 | 4 | 0.050 | 0.038 | 4 | 0.582965885 |
| 4 | 0.052 | 0.033 | 4 | 0.004 | 0.038 | 4 | -0.057 | 0.050 | 4 | 0.583197958 |
| 4 | 0.015 | 0.012 | 4 | -0.027 | 0.041 | 4 | 0.009 | 0.014 | 4 | 0.58343003 |
| 4 | 0.002 | 0.056 | 4 | -0.011 | 0.043 | 4 | -0.014 | 0.038 | 4 | 0.583662103 |
| 4 | -0.031 | 0.012 | 4 | -0.054 | 0.033 | 4 | 0.006 | 0.044 | 4 | 0.583894175 |
| 3 | -0.010 | 0.006 | 3 | 0.022 | 0.047 | 3 | -0.026 | 0.019 | 3 | 0.584126247 |
| 4 | -0.003 | 0.014 | 4 | -0.024 | 0.032 | 4 | 0.005 | 0.018 | 4 | 0.58435832 |
| 4 | 0.002 | 0.028 | 4 | -0.016 | 0.029 | 4 | 0.000 | 0.030 | 4 | 0.584590392 |
| 3 | -0.019 | 0.045 | 3 | 0.004 | 0.056 | 3 | -0.008 | 0.019 | 3 | 0.584822465 |
| 2 | 0.005 | 0.001 | 2 | 0.002 | 0.076 | 2 | 0.018 | 0.050 | 2 | 0.585054537 |
| 4 | 0.007 | 0.045 | 4 | 0.011 | 0.048 | 4 | 0.009 | 0.041 | 4 | 0.585286609 |
| 4 | 0.012 | 0.024 | 4 | -0.001 | 0.036 | 4 | -0.007 | 0.022 | 4 | 0.585518682 |
| 4 | 0.016 | 0.011 | 4 | -0.037 | 0.076 | 4 | 0.008 | 0.045 | 4 | 0.585750754 |
| 4 | -0.008 | 0.021 | 4 | -0.017 | 0.025 | 4 | -0.007 | 0.028 | 4 | 0.585982827 |
| 4 | 0.002 | 0.056 | 4 | 0.026 | 0.035 | 4 | 0.024 | 0.012 | 4 | 0.586214899 |
| 2 | -0.018 | 0.008 | 2 | -0.039 | 0.056 | 2 | 0.007 | 0.036 | 2 | 0.586446971 |
| 4 | -0.040 | 0.009 | 4 | 0.013 | 0.034 | 4 | 0.002 | 0.026 | 4 | 0.586679044 |
| 4 | -0.010 | 0.028 | 4 | -0.009 | 0.032 | 4 | 0.011 | 0.155 | 4 | 0.586911116 |
| 4 | 0.009 | 0.080 | 4 | 0.021 | 0.041 | 4 | 0.015 | 0.042 | 4 | 0.587143189 |
| 3 | -0.020 | 0.006 | 3 | -0.052 | 0.050 | 3 | -0.007 | 0.027 | 3 | 0.587375261 |
| 3 | -0.030 | 0.011 | 4 | -0.067 | 0.025 | 4 | 0.063 | 0.016 | 4 | 0.587607333 |
| 3 | -0.049 | 0.052 | 4 | -0.007 | 0.096 | 4 | 0.040 | 0.007 | 4 | 0.587839406 |
| 4 | -0.014 | 0.022 | 4 | -0.043 | 0.050 | 4 | 0.019 | 0.030 | 4 | 0.588071478 |
| 3 | -0.001 | 0.058 | 3 | 0.006 | 0.073 | 3 | -0.010 | 0.038 | 3 | 0.588303551 |
| 4 | -0.055 | 0.028 | 4 | -0.025 | 0.054 | 4 | 0.043 | 0.053 | 4 | 0.588535623 |
| 4 | -0.008 | 0.035 | 4 | -0.019 | 0.038 | 4 | -0.051 | 0.030 | 4 | 0.588767696 |
| 2 | 0.035 | 0.012 | 2 | -0.047 | 0.034 | 2 | -0.015 | 0.002 | 2 | 0.588999768 |
| 4 | -0.004 | 0.010 | 4 | -0.076 | 0.036 | 4 | -0.016 | 0.022 | 4 | 0.58923184 |
| 4 | -0.003 | 0.013 | 4 | -0.028 | 0.024 | 4 | 0.006 | 0.016 | 4 | 0.589463913 |
| 3 | -0.035 | 0.031 | 4 | -0.012 | 0.039 | 4 | -0.015 | 0.025 | 4 | 0.589695985 |
| 4 | 0.041 | 0.008 | 4 | 0.047 | 0.034 | 4 | -0.172 | 0.243 | 4 | 0.589928058 |
| 4 | -0.013 | 0.034 | 4 | -0.017 | 0.044 | 4 | 0.012 | 0.021 | 4 | 0.59016013 |
| 4 | 0.025 | 0.015 | 4 | -0.010 | 0.035 | 4 | -0.023 | 0.013 | 4 | 0.590392202 |
| 4 | 0.006 | 0.010 | 4 | 0.009 | 0.051 | 4 | -0.005 | 0.039 | 4 | 0.590624275 |
| 4 | 0.021 | 0.037 | 4 | -0.034 | 0.027 | 4 | -0.051 | 0.025 | 4 | 0.590856347 |
| 4 | 0.037 | 0.014 | 4 | -0.029 | 0.079 | 4 | 0.002 | 0.062 | 4 | 0.59108842 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 4 | 0.020 | 0.020 | 4 | -0.018 | 0.052 | 4 | 0.006 | 0.028 | 4 | 0.591320492 |
| 4 | -0.045 | 0.011 | 4 | -0.012 | 0.038 | 4 | 0.004 | 0.020 | 4 | 0.591552564 |
| 4 | 0.005 | 0.037 | 4 | -0.014 | 0.026 | 4 | -0.003 | 0.032 | 4 | 0.591784637 |
| 4 | 0.045 | 0.015 | 4 | 0.012 | 0.046 | 4 | -0.005 | 0.044 | 4 | 0.592016709 |
| 4 | 0.022 | 0.016 | 4 | 0.027 | 0.032 | 4 | -0.047 | 0.143 | 4 | 0.592248782 |
| 4 | -0.018 | 0.017 | 4 | -0.014 | 0.048 | 4 | -0.004 | 0.035 | 4 | 0.592480854 |
| 4 | 0.002 | 0.013 | 4 | 0.008 | 0.034 | 4 | 0.010 | 0.012 | 4 | 0.592712926 |
| 2 | -0.016 | 0.049 | 3 | -0.008 | 0.032 | 3 | -0.015 | 0.023 | 3 | 0.592944999 |
| 4 | 0.007 | 0.025 | 4 | -0.015 | 0.029 | 4 | -0.018 | 0.017 | 4 | 0.593177071 |
| | -0.226 | 0.038 | 2 | 0.049 | 0.025 | 2 | 0.170 | 0.029 | 2 | 0.593409144 |
| 4 | -0.001 | 0.037 | 4 | 0.000 | 0.025 | 4 | -0.009 | 0.051 | 4 | 0.593641216 |
| 4 | 0.017 | 0.053 | 4 | -0.049 | 0.043 | 4 | 0.023 | 0.034 | 4 | 0.593873288 |
| 4 | 0.011 | 0.046 | 4 | -0.015 | 0.021 | 4 | -0.024 | 0.014 | 4 | 0.594105361 |
| 4 | 0.001 | 0.029 | 4 | 0.015 | 0.034 | 4 | -0.010 | 0.017 | 4 | 0.594337433 |
| 4 | 0.008 | 0.050 | 4 | -0.005 | 0.027 | 4 | 0.024 | 0.042 | 4 | 0.594569506 |
| 4 | -0.018 | 0.011 | 4 | 0.033 | 0.033 | 4 | 0.010 | 0.031 | 4 | 0.594801578 |
| 4 | 0.042 | 0.069 | 4 | -0.015 | 0.055 | 4 | -0.017 | 0.038 | 4 | 0.59503365 |
| 4 | 0.025 | 0.051 | 4 | 0.008 | 0.037 | 4 | 0.003 | 0.043 | 4 | 0.595265723 |
| | -0.111 | 0.021 | 4 | -0.021 | 0.027 | 4 | 0.125 | 0.019 | 4 | 0.595497795 |
| 4 | -0.003 | 0.032 | 4 | 0.000 | 0.059 | 4 | 0.038 | 0.033 | 4 | 0.595729868 |
| 4 | 0.003 | 0.033 | 4 | 0.008 | 0.057 | 4 | -0.027 | 0.042 | 4 | 0.59596194 |
| 4 | 0.026 | 0.018 | 4 | 0.031 | 0.045 | 4 | 0.010 | 0.026 | 4 | 0.596194013 |
| 4 | 0.015 | 0.022 | 4 | -0.022 | 0.051 | 4 | 0.017 | 0.026 | 4 | 0.596426085 |
| 4 | -0.007 | 0.018 | 4 | 0.004 | 0.033 | 4 | 0.025 | 0.016 | 4 | 0.596658157 |
| 3 | -0.004 | 0.017 | 4 | 0.000 | 0.029 | 4 | 0.025 | 0.018 | 4 | 0.59689023 |
| 4 | 0.013 | 0.034 | 4 | -0.010 | 0.042 | 4 | 0.011 | 0.041 | 4 | 0.597122302 |
| 4 | -0.002 | 0.026 | 4 | 0.000 | 0.025 | 4 | -0.005 | 0.026 | 4 | 0.597354375 |
| 2 | 0.036 | 0.004 | 2 | -0.017 | 0.027 | 2 | 0.026 | 0.000 | 2 | 0.597586447 |
| 4 | 0.001 | 0.021 | 4 | -0.011 | 0.052 | 4 | 0.001 | 0.038 | 4 | 0.597818519 |
| 4 | -0.010 | 0.038 | 4 | 0.011 | 0.033 | 4 | 0.031 | 0.028 | 4 | 0.598050592 |
| 4 | 0.023 | 0.015 | 4 | -0.003 | 0.037 | 4 | -0.157 | 0.210 | 4 | 0.598282664 |
| 4 | -0.033 | 0.022 | 4 | -0.015 | 0.065 | 4 | 0.030 | 0.094 | 4 | 0.598514737 |
| 4 | -0.019 | 0.027 | 4 | -0.022 | 0.064 | 4 | -0.002 | 0.057 | 4 | 0.598746809 |
| 4 | -0.010 | 0.034 | 4 | 0.005 | 0.051 | 4 | -0.009 | 0.038 | 4 | 0.598978881 |
| 4 | -0.011 | 0.015 | 4 | -0.030 | 0.043 | 4 | 0.014 | 0.045 | 4 | 0.599210954 |
| 4 | 0.004 | 0.017 | 4 | -0.006 | 0.044 | 4 | -0.010 | 0.023 | 4 | 0.599443026 |
| 4 | -0.015 | 0.078 | 4 | -0.046 | 0.047 | 4 | 0.025 | 0.029 | 4 | 0.599675099 |
| 4 | -0.025 | 0.064 | 4 | 0.007 | 0.037 | 4 | -0.001 | 0.034 | 4 | 0.599907171 |
| 3 | -0.015 | 0.016 | 3 | -0.030 | 0.027 | 3 | 0.009 | 0.044 | 3 | 0.600139243 |
| 3 | -0.007 | 0.021 | 4 | -0.040 | 0.082 | 4 | 0.018 | 0.082 | 4 | 0.600371316 |
| 4 | 0.007 | 0.028 | 4 | 0.010 | 0.029 | 4 | -0.016 | 0.052 | 4 | 0.600603388 |
| 4 | -0.018 | 0.013 | 4 | -0.024 | 0.037 | 4 | -0.002 | 0.054 | 4 | 0.600835461 |
| 4 | -0.050 | 0.014 | 4 | -0.026 | 0.032 | 4 | 0.002 | 0.021 | 4 | 0.601067533 |
| 4 | 0.031 | 0.041 | 4 | 0.049 | 0.061 | 4 | -0.016 | 0.046 | 4 | 0.601299605 |
| 2 | -0.028 | 0.019 | 2 | -0.026 | 0.029 | 2 | -0.039 | 0.006 | 2 | 0.601531678 |
| 4 | -0.041 | 0.014 | 4 | 0.037 | 0.033 | 4 | 0.026 | 0.011 | 4 | 0.60176375 |
| 4 | 0.039 | 0.033 | 4 | -0.035 | 0.027 | 4 | -0.008 | 0.013 | 4 | 0.601995823 |
| 4 | 0.054 | 0.049 | 4 | 0.065 | 0.062 | 4 | -0.011 | 0.040 | 4 | 0.602227895 |
| 4 | -0.008 | 0.035 | 4 | -0.024 | 0.048 | 4 | 0.007 | 0.023 | 4 | 0.602459968 |
| 4 | 0.049 | 0.035 | 4 | -0.045 | 0.081 | 4 | 0.019 | 0.013 | 4 | 0.60269204 |
| 4 | -0.016 | 0.024 | 4 | 0.026 | 0.022 | 4 | 0.016 | 0.029 | 4 | 0.602924112 |
| 4 | -0.023 | 0.012 | 4 | -0.013 | 0.023 | 4 | 0.025 | 0.008 | 4 | 0.603156185 |

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|---|---|---|---|---|---|---|---|---|---|---|
| 4 | 0.028 | 0.038 | 4 | -0.027 | 0.050 | 4 | -0.022 | 0.010 | 4 | 0.603388257 |
| 4 | -0.018 | 0.041 | 4 | -0.018 | 0.077 | 4 | -0.011 | 0.049 | 4 | 0.60362033 |
| 4 | 0.003 | 0.019 | 4 | 0.019 | 0.032 | 4 | -0.003 | 0.028 | 4 | 0.603852402 |
| 4 | 0.022 | 0.028 | 4 | -0.011 | 0.067 | 4 | 0.010 | 0.064 | 4 | 0.604084474 |
| 4 | -0.011 | 0.022 | 4 | -0.023 | 0.017 | 4 | -0.012 | 0.012 | 4 | 0.604316547 |
| 4 | -0.023 | 0.021 | 4 | -0.018 | 0.017 | 4 | -0.009 | 0.022 | 4 | 0.604548619 |
| 4 | 0.034 | 0.030 | 4 | -0.061 | 0.083 | 4 | 0.031 | 0.017 | 4 | 0.604780692 |
| 4 | 0.001 | 0.018 | 4 | 0.010 | 0.042 | 4 | 0.007 | 0.022 | 4 | 0.605012764 |
| 4 | 0.023 | 0.029 | 4 | 0.028 | 0.031 | 4 | -0.007 | 0.022 | 4 | 0.605244836 |
| 4 | -0.020 | 0.018 | 4 | 0.008 | 0.033 | 4 | 0.019 | 0.014 | 4 | 0.605476909 |
| 4 | 0.004 | 0.025 | 4 | 0.003 | 0.050 | 4 | 0.001 | 0.023 | 4 | 0.605708981 |
| 4 | -0.012 | 0.031 | 4 | -0.007 | 0.033 | 4 | 0.018 | 0.017 | 4 | 0.605941054 |
| 3 | 0.025 | 0.021 | 3 | -0.007 | 0.050 | 3 | -0.026 | 0.041 | 3 | 0.606173126 |
| 4 | -0.008 | 0.023 | 4 | 0.027 | 0.027 | 4 | -0.007 | 0.021 | 4 | 0.606405198 |
| 2 | -0.048 | 0.091 | 3 | 0.041 | 0.095 | 3 | 0.093 | 0.026 | 3 | 0.606637271 |
| 4 | 0.000 | 0.026 | 4 | 0.030 | 0.030 | 4 | 0.018 | 0.011 | 4 | 0.606869343 |
| 4 | -0.012 | 0.014 | 4 | -0.027 | 0.033 | 4 | 0.006 | 0.010 | 4 | 0.607101416 |
| 4 | 0.028 | 0.005 | 4 | 0.007 | 0.030 | 4 | -0.001 | 0.028 | 4 | 0.607333488 |
| 4 | 0.028 | 0.013 | 4 | 0.008 | 0.047 | 4 | -0.009 | 0.023 | 4 | 0.60756556 |
| 4 | 0.019 | 0.015 | 4 | 0.000 | 0.031 | 4 | 0.005 | 0.019 | 4 | 0.607797633 |
| 4 | 0.032 | 0.024 | 4 | 0.000 | 0.040 | 4 | -0.012 | 0.058 | 4 | 0.608029705 |
| 4 | 0.024 | 0.049 | 4 | -0.026 | 0.059 | 4 | 0.001 | 0.052 | 4 | 0.608261778 |
| 4 | 0.000 | 0.034 | 4 | 0.000 | 0.063 | 4 | 0.005 | 0.044 | 4 | 0.60849385 |
| 4 | -0.026 | 0.007 | 4 | 0.029 | 0.064 | 4 | 0.006 | 0.051 | 4 | 0.608725922 |
| 4 | -0.007 | 0.039 | 4 | 0.006 | 0.053 | 4 | 0.006 | 0.038 | 4 | 0.608957995 |
| 3 | 0.001 | 0.045 | 3 | 0.032 | 0.031 | 3 | -0.011 | 0.031 | 3 | 0.609190067 |
| 4 | -0.009 | 0.022 | 4 | -0.019 | 0.023 | 4 | -0.005 | 0.008 | 4 | 0.60942214 |
| 2 | 0.000 | 0.027 | 2 | -0.016 | 0.027 | 2 | 0.019 | 0.003 | 2 | 0.609654212 |
| 4 | 0.006 | 0.007 | 4 | -0.009 | 0.061 | 4 | -0.061 | 0.032 | 4 | 0.609886285 |
| 4 | -0.002 | 0.027 | 4 | 0.030 | 0.027 | 4 | 0.031 | 0.026 | 4 | 0.610118357 |
| 4 | -0.004 | 0.045 | 4 | 0.013 | 0.034 | 4 | 0.017 | 0.032 | 4 | 0.610350429 |
| 4 | 0.010 | 0.035 | 4 | 0.011 | 0.046 | 4 | -0.001 | 0.010 | 4 | 0.610582502 |
| 3 | -0.010 | 0.036 | 3 | 0.003 | 0.033 | 3 | -0.048 | 0.087 | 3 | 0.610814574 |
| 3 | 0.011 | 0.015 | 4 | -0.055 | 0.049 | 4 | 0.005 | 0.026 | 4 | 0.611046647 |
| 4 | -0.008 | 0.033 | 4 | -0.002 | 0.037 | 4 | 0.029 | 0.028 | 4 | 0.611278719 |
| 4 | -0.012 | 0.035 | 4 | -0.019 | 0.029 | 4 | -0.002 | 0.022 | 4 | 0.611510791 |
| 4 | 0.045 | 0.023 | 4 | -0.008 | 0.027 | 4 | 0.002 | 0.012 | 4 | 0.611742864 |
| 4 | -0.002 | 0.028 | 4 | -0.001 | 0.054 | 4 | 0.001 | 0.054 | 4 | 0.611974936 |
| 4 | 0.036 | 0.027 | 4 | 0.002 | 0.038 | 4 | 0.025 | 0.034 | 4 | 0.612207009 |
| 4 | -0.031 | 0.046 | 4 | 0.041 | 0.025 | 4 | 0.017 | 0.024 | 4 | 0.612439081 |
| 4 | 0.003 | 0.027 | 4 | 0.008 | 0.049 | 4 | 0.011 | 0.043 | 4 | 0.612671153 |
| 4 | -0.010 | 0.031 | 4 | -0.022 | 0.046 | 4 | -0.033 | 0.013 | 4 | 0.612903226 |
| 4 | -0.004 | 0.011 | 4 | 0.002 | 0.030 | 4 | 0.029 | 0.028 | 4 | 0.613135298 |
| 4 | 0.014 | 0.018 | 4 | 0.011 | 0.019 | 4 | -0.017 | 0.014 | 4 | 0.613367371 |
| 4 | -0.037 | 0.052 | 4 | -0.036 | 0.034 | 4 | -0.005 | 0.028 | 4 | 0.613599443 |
| 4 | 0.010 | 0.031 | 4 | 0.007 | 0.045 | 4 | 0.033 | 0.051 | 4 | 0.613831515 |
| 4 | 0.012 | 0.034 | 4 | 0.008 | 0.028 | 4 | 0.007 | 0.014 | 4 | 0.614063588 |
| 2 | -0.010 | 0.021 | 2 | -0.033 | 0.028 | 2 | 0.009 | 0.002 | 2 | 0.61429566 |
| 4 | -0.005 | 0.021 | 4 | 0.035 | 0.045 | 4 | -0.007 | 0.035 | 4 | 0.614527733 |
| 4 | 0.001 | 0.036 | 4 | 0.003 | 0.041 | 4 | 0.011 | 0.038 | 4 | 0.614759805 |
| 4 | 0.008 | 0.026 | 4 | 0.003 | 0.045 | 4 | -0.002 | 0.029 | 4 | 0.614991877 |
| 4 | -0.003 | 0.051 | 4 | 0.008 | 0.035 | 4 | -0.035 | 0.012 | 4 | 0.61522395 |

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|---|---|---|---|---|---|---|---|---|---|---|
| 4 | 0.002 | 0.014 | 4 | -0.031 | 0.024 | 4 | -0.042 | 0.017 | 4 | 0.615456022 |
| 4 | 0.027 | 0.030 | 4 | -0.004 | 0.039 | 4 | -0.052 | 0.117 | 4 | 0.615688095 |
| 2 | -0.040 | 0.064 | 3 | -0.003 | 0.119 | 3 | 0.033 | 0.032 | 3 | 0.615920167 |
| 2 | -0.001 | 0.014 | 2 | -0.013 | 0.009 | 2 | 0.000 | 0.014 | 2 | 0.616152239 |
| 4 | 0.012 | 0.009 | 4 | -0.042 | 0.031 | 4 | 0.029 | 0.026 | 4 | 0.616384312 |
| 3 | -0.004 | 0.031 | 3 | 0.030 | 0.008 | 3 | 0.021 | 0.043 | 3 | 0.616616384 |
| 4 | 0.002 | 0.049 | 4 | 0.004 | 0.068 | 4 | -0.004 | 0.078 | 4 | 0.616848457 |
| 4 | 0.022 | 0.014 | 4 | -0.045 | 0.034 | 4 | 0.006 | 0.025 | 4 | 0.617080529 |
| | 0.086 | 0.090 | 2 | 0.091 | 0.022 | 2 | -0.177 | 0.024 | 2 | 0.617312602 |
| 4 | 0.001 | 0.028 | 4 | 0.005 | 0.058 | 4 | -0.003 | 0.029 | 4 | 0.617544674 |
| 2 | 0.013 | 0.055 | 2 | -0.069 | 0.059 | 2 | -0.038 | 0.020 | 2 | 0.617776746 |
| 4 | -0.019 | 0.022 | 4 | 0.010 | 0.033 | 4 | 0.010 | 0.045 | 4 | 0.618008819 |
| 4 | 0.012 | 0.044 | 4 | 0.001 | 0.025 | 4 | 0.007 | 0.042 | 4 | 0.618240891 |
| 4 | -0.001 | 0.011 | 4 | -0.020 | 0.026 | 4 | -0.002 | 0.018 | 4 | 0.618472964 |
| 4 | 0.000 | 0.043 | 4 | 0.000 | 0.053 | 4 | 0.001 | 0.055 | 4 | 0.618705036 |
| 4 | -0.016 | 0.028 | 4 | -0.038 | 0.032 | 4 | -0.022 | 0.025 | 4 | 0.618937108 |
| 4 | -0.015 | 0.029 | 4 | 0.001 | 0.071 | 4 | 0.009 | 0.049 | 4 | 0.619169181 |
| 4 | 0.022 | 0.008 | 4 | -0.008 | 0.026 | 4 | -0.026 | 0.009 | 4 | 0.619401253 |
| 4 | -0.016 | 0.064 | 4 | -0.027 | 0.068 | 4 | 0.014 | 0.046 | 4 | 0.619633326 |
| 4 | -0.019 | 0.052 | 4 | -0.035 | 0.092 | 4 | 0.005 | 0.064 | 4 | 0.619865398 |
| 3 | -0.014 | 0.048 | 4 | -0.046 | 0.009 | 4 | -0.001 | 0.015 | 4 | 0.62009747 |
| 3 | 0.017 | 0.028 | 4 | -0.006 | 0.045 | 4 | 0.006 | 0.068 | 4 | 0.620329543 |
| 2 | -0.011 | 0.035 | 3 | 0.030 | 0.026 | 3 | -0.001 | 0.016 | 3 | 0.620561615 |
| 4 | 0.046 | 0.024 | 4 | 0.021 | 0.047 | 4 | -0.032 | 0.006 | 4 | 0.620793688 |
| 4 | 0.017 | 0.033 | 4 | -0.038 | 0.024 | 4 | -0.005 | 0.058 | 4 | 0.62102576 |
| 4 | 0.038 | 0.021 | 4 | -0.049 | 0.066 | 4 | 0.023 | 0.044 | 4 | 0.621257832 |
| 4 | -0.005 | 0.006 | 4 | -0.016 | 0.032 | 4 | -0.011 | 0.028 | 4 | 0.621489905 |
| 4 | 0.024 | 0.018 | 4 | -0.013 | 0.032 | 4 | -0.032 | 0.020 | 4 | 0.621721977 |
| 4 | 0.003 | 0.019 | 4 | -0.047 | 0.032 | 4 | 0.009 | 0.027 | 4 | 0.62195405 |
| 2 | -0.004 | 0.034 | 2 | -0.051 | 0.050 | 2 | -0.020 | 0.019 | 2 | 0.622186122 |
| 2 | 0.037 | 0.037 | 3 | -0.043 | 0.024 | 3 | 0.010 | 0.040 | 3 | 0.622418194 |
| 4 | 0.006 | 0.028 | 4 | -0.034 | 0.064 | 4 | 0.003 | 0.023 | 4 | 0.622650267 |
| 4 | 0.000 | 0.030 | 4 | -0.004 | 0.042 | 4 | -0.016 | 0.026 | 4 | 0.622882339 |
| 4 | 0.001 | 0.034 | 4 | -0.011 | 0.060 | 4 | -0.002 | 0.024 | 4 | 0.623114412 |
| 4 | 0.030 | 0.023 | 4 | -0.012 | 0.017 | 4 | 0.014 | 0.013 | 4 | 0.623346484 |
| 4 | -0.015 | 0.013 | 4 | -0.037 | 0.008 | 4 | 0.023 | 0.016 | 4 | 0.623578557 |
| 4 | -0.016 | 0.019 | 4 | -0.055 | 0.079 | 4 | 0.022 | 0.042 | 4 | 0.623810629 |
| 4 | 0.021 | 0.016 | 4 | -0.018 | 0.054 | 4 | -0.009 | 0.033 | 4 | 0.624042701 |
| 2 | -0.016 | 0.022 | 2 | 0.042 | 0.005 | 2 | -0.031 | 0.003 | 2 | 0.624274774 |
| 4 | 0.001 | 0.060 | 4 | -0.001 | 0.064 | 4 | -0.011 | 0.039 | 4 | 0.624506846 |
| 4 | 0.004 | 0.030 | 4 | -0.014 | 0.031 | 4 | 0.014 | 0.022 | 4 | 0.624738919 |
| 4 | -0.002 | 0.040 | 4 | 0.018 | 0.030 | 4 | 0.021 | 0.018 | 4 | 0.624970991 |
| 4 | -0.030 | 0.017 | 4 | -0.001 | 0.018 | 4 | -0.007 | 0.020 | 4 | 0.625203063 |
| 4 | 0.015 | 0.023 | 4 | 0.012 | 0.052 | 4 | -0.018 | 0.028 | 4 | 0.625435136 |
| 4 | 0.008 | 0.052 | 4 | 0.018 | 0.030 | 4 | 0.018 | 0.025 | 4 | 0.625667208 |
| 4 | 0.000 | 0.002 | 4 | 0.025 | 0.023 | 4 | -0.003 | 0.034 | 4 | 0.625899281 |
| 4 | 0.010 | 0.016 | 4 | 0.029 | 0.034 | 4 | 0.018 | 0.009 | 4 | 0.626131353 |
| 4 | 0.040 | 0.018 | 4 | -0.031 | 0.054 | 4 | 0.036 | 0.032 | 4 | 0.626363425 |
| 2 | 0.043 | 0.050 | 3 | 0.040 | 0.023 | 3 | 0.013 | 0.040 | 3 | 0.626595498 |
| 4 | 0.007 | 0.004 | 4 | -0.005 | 0.040 | 4 | -0.020 | 0.018 | 4 | 0.62682757 |
| 4 | -0.007 | 0.026 | 4 | -0.007 | 0.031 | 4 | -0.013 | 0.029 | 4 | 0.627059643 |
| 4 | -0.014 | 0.018 | 4 | 0.016 | 0.053 | 4 | -0.044 | 0.018 | 4 | 0.627291715 |

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|---|---|---|---|---|---|---|---|---|---|---|
| 2 | 0.064 | 0.016 | 2 | -0.001 | 0.047 | 2 | 0.026 | 0.009 | 2 | 0.627523787 |
| 4 | -0.005 | 0.027 | 4 | -0.014 | 0.018 | 4 | 0.016 | 0.029 | 4 | 0.62775586 |
| 4 | -0.007 | 0.028 | 4 | -0.002 | 0.041 | 4 | 0.001 | 0.030 | 4 | 0.627987932 |
| 4 | 0.012 | 0.016 | 4 | 0.019 | 0.079 | 4 | 0.016 | 0.056 | 4 | 0.628220005 |
| 4 | 0.018 | 0.013 | 4 | -0.011 | 0.037 | 4 | 0.016 | 0.009 | 4 | 0.628452077 |
| 4 | -0.069 | 0.042 | 4 | -0.034 | 0.093 | 4 | 0.025 | 0.068 | 4 | 0.628684149 |
| 4 | 0.008 | 0.030 | 4 | -0.018 | 0.046 | 4 | 0.022 | 0.026 | 4 | 0.628916222 |
| 4 | -0.006 | 0.034 | 4 | -0.036 | 0.056 | 4 | -0.011 | 0.036 | 4 | 0.629148294 |
| 4 | 0.012 | 0.006 | 4 | -0.011 | 0.041 | 4 | -0.009 | 0.025 | 4 | 0.629380367 |
| 2 | -0.010 | 0.016 | 2 | -0.034 | 0.006 | 2 | -0.001 | 0.004 | 2 | 0.629612439 |
| 4 | -0.002 | 0.031 | 4 | 0.004 | 0.083 | 4 | 0.005 | 0.049 | 4 | 0.629844511 |
| 4 | 0.032 | 0.052 | 4 | -0.003 | 0.031 | 4 | 0.001 | 0.010 | 4 | 0.630076584 |
| 4 | 0.041 | 0.038 | 4 | 0.020 | 0.062 | 4 | 0.014 | 0.034 | 4 | 0.630308656 |
| 4 | 0.013 | 0.039 | 4 | 0.012 | 0.047 | 4 | -0.032 | 0.032 | 4 | 0.630540729 |
| 2 | -0.101 | 0.050 | 2 | -0.022 | 0.025 | 2 | -0.030 | 0.038 | 2 | 0.630772801 |
| 4 | -0.005 | 0.019 | 4 | -0.010 | 0.048 | 4 | 0.003 | 0.030 | 4 | 0.631004874 |
| 4 | 0.017 | 0.024 | 4 | 0.036 | 0.053 | 4 | 0.007 | 0.049 | 4 | 0.631236946 |
| 4 | 0.042 | 0.032 | 4 | -0.030 | 0.046 | 4 | -0.023 | 0.031 | 4 | 0.631469018 |
| 4 | 0.003 | 0.030 | 4 | 0.032 | 0.045 | 4 | -0.006 | 0.017 | 4 | 0.631701091 |
| 4 | 0.068 | 0.039 | 4 | 0.011 | 0.047 | 4 | -0.070 | 0.019 | 4 | 0.631933163 |
| 4 | 0.005 | 0.019 | 4 | 0.003 | 0.065 | 4 | -0.013 | 0.015 | 4 | 0.632165236 |
| 2 | -0.067 | 0.030 | 3 | 0.031 | 0.030 | 3 | 0.004 | 0.025 | 3 | 0.632397308 |
| 4 | 0.001 | 0.023 | 4 | 0.004 | 0.029 | 4 | -0.005 | 0.020 | 4 | 0.63262938 |
| 4 | 0.014 | 0.017 | 4 | 0.041 | 0.018 | 4 | -0.021 | 0.035 | 4 | 0.632861453 |
| 3 | 0.079 | 0.045 | 4 | -0.050 | 0.054 | 4 | -0.030 | 0.061 | 4 | 0.633093525 |
| 3 | 0.043 | 0.024 | 3 | 0.014 | 0.045 | 3 | -0.039 | 0.025 | 3 | 0.633325598 |
| 3 | 0.041 | 0.026 | 3 | -0.009 | 0.058 | 3 | -0.051 | 0.033 | 3 | 0.63355767 |
| 2 | -0.026 | 0.014 | 3 | 0.000 | 0.019 | 3 | 0.024 | 0.010 | 3 | 0.633789742 |
| 4 | 0.001 | 0.027 | 4 | -0.005 | 0.052 | 4 | 0.032 | 0.024 | 4 | 0.634021815 |
| | -0.112 | 0.003 | 2 | -0.022 | 0.035 | 2 | 0.138 | 0.057 | 2 | 0.634253887 |
| 4 | -0.017 | 0.022 | 4 | 0.008 | 0.025 | 4 | 0.050 | 0.027 | 4 | 0.63448596 |
| 4 | 0.035 | 0.030 | 4 | 0.010 | 0.014 | 4 | 0.011 | 0.016 | 4 | 0.634718032 |
| 4 | 0.004 | 0.007 | 4 | 0.045 | 0.044 | 4 | -0.017 | 0.020 | 4 | 0.634950104 |
| 4 | -0.065 | 0.071 | 4 | 0.001 | 0.052 | 4 | 0.047 | 0.017 | 4 | 0.635182177 |
| 4 | -0.002 | 0.034 | 4 | -0.008 | 0.052 | 4 | 0.006 | 0.031 | 4 | 0.635414249 |
| 4 | 0.009 | 0.047 | 4 | 0.027 | 0.057 | 4 | -0.006 | 0.018 | 4 | 0.635646322 |
| 4 | 0.011 | 0.011 | 4 | -0.008 | 0.042 | 4 | 0.015 | 0.021 | 4 | 0.635878394 |
| 4 | -0.007 | 0.024 | 4 | -0.007 | 0.034 | 4 | -0.010 | 0.041 | 4 | 0.636110466 |
| 2 | 0.010 | 0.032 | 2 | 0.023 | 0.002 | 2 | 0.013 | 0.027 | 2 | 0.636342539 |
| 4 | -0.007 | 0.008 | 4 | 0.011 | 0.029 | 4 | 0.006 | 0.025 | 4 | 0.636574611 |
| 4 | -0.002 | 0.010 | 4 | 0.004 | 0.042 | 4 | 0.031 | 0.029 | 4 | 0.636806684 |
| 4 | 0.064 | 0.011 | 4 | 0.009 | 0.043 | 4 | -0.125 | 0.166 | 4 | 0.637038756 |
| 4 | 0.048 | 0.022 | 4 | -0.015 | 0.052 | 4 | 0.010 | 0.036 | 4 | 0.637270828 |
| 4 | 0.000 | 0.017 | 4 | 0.006 | 0.041 | 4 | 0.014 | 0.038 | 4 | 0.637502901 |
| 2 | -0.014 | 0.058 | 3 | -0.015 | 0.065 | 3 | 0.008 | 0.037 | 3 | 0.637734973 |
| 2 | 0.002 | 0.063 | 3 | -0.021 | 0.037 | 3 | 0.041 | 0.030 | 3 | 0.637967046 |
| | -0.203 | 0.005 | 2 | 0.023 | 0.017 | 2 | 0.186 | 0.006 | 2 | 0.638199118 |
| 3 | 0.026 | 0.029 | 4 | -0.022 | 0.026 | 4 | 0.014 | 0.040 | 4 | 0.638431191 |
| 4 | 0.017 | 0.028 | 4 | 0.014 | 0.048 | 4 | 0.040 | 0.033 | 4 | 0.638663263 |
| 4 | 0.010 | 0.028 | 4 | 0.030 | 0.021 | 4 | 0.037 | 0.016 | 4 | 0.638895335 |
| 4 | 0.025 | 0.037 | 4 | 0.012 | 0.046 | 4 | 0.011 | 0.032 | 4 | 0.639127408 |
| 4 | -0.035 | 0.031 | 4 | -0.003 | 0.050 | 4 | 0.027 | 0.054 | 4 | 0.63935948 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 4 | -0.009 | 0.050 | 4 | -0.033 | 0.060 | 4 | -0.018 | 0.038 | 4 | 0.639591553 |
| 3 | -0.015 | 0.002 | 3 | 0.021 | 0.093 | 3 | 0.072 | 0.058 | 3 | 0.639823625 |
| 3 | -0.018 | 0.010 | 3 | 0.012 | 0.020 | 3 | 0.012 | 0.028 | 3 | 0.640055697 |
| 4 | 0.004 | 0.007 | 4 | 0.028 | 0.033 | 4 | 0.011 | 0.020 | 4 | 0.64028777 |
| 4 | 0.018 | 0.059 | 4 | -0.018 | 0.055 | 4 | 0.033 | 0.063 | 4 | 0.640519842 |
| 4 | 0.014 | 0.032 | 4 | -0.028 | 0.045 | 4 | 0.016 | 0.037 | 4 | 0.640751915 |
| 4 | 0.038 | 0.026 | 4 | 0.044 | 0.041 | 4 | 0.020 | 0.045 | 4 | 0.640983987 |
| 4 | -0.031 | 0.017 | 4 | -0.010 | 0.031 | 4 | 0.055 | 0.016 | 4 | 0.641216059 |
| 4 | 0.015 | 0.028 | 4 | -0.004 | 0.049 | 4 | 0.048 | 0.037 | 4 | 0.641448132 |
| 4 | 0.011 | 0.027 | 4 | 0.016 | 0.027 | 4 | -0.011 | 0.019 | 4 | 0.641680204 |
| 2 | 0.017 | 0.012 | 2 | -0.019 | 0.008 | 2 | -0.009 | 0.002 | 2 | 0.641912277 |
| 4 | 0.018 | 0.043 | 4 | -0.010 | 0.027 | 4 | -0.030 | 0.018 | 4 | 0.642144349 |
| 4 | 0.034 | 0.017 | 4 | 0.009 | 0.036 | 4 | -0.029 | 0.023 | 4 | 0.642376421 |
| 4 | -0.003 | 0.033 | 4 | -0.013 | 0.026 | 4 | 0.024 | 0.024 | 4 | 0.642608494 |
| 4 | 0.002 | 0.030 | 4 | -0.017 | 0.062 | 4 | 0.011 | 0.039 | 4 | 0.642840566 |
| 4 | 0.000 | 0.010 | 4 | -0.005 | 0.035 | 4 | -0.039 | 0.008 | 4 | 0.643072639 |
| 4 | 0.017 | 0.015 | 4 | 0.007 | 0.024 | 4 | 0.003 | 0.015 | 4 | 0.643304711 |
| 4 | -0.018 | 0.029 | 4 | 0.005 | 0.039 | 4 | 0.015 | 0.022 | 4 | 0.643536783 |
| 4 | -0.028 | 0.028 | 4 | -0.003 | 0.065 | 4 | 0.007 | 0.053 | 4 | 0.643768856 |
| 4 | 0.009 | 0.031 | 4 | 0.034 | 0.020 | 4 | -0.041 | 0.062 | 4 | 0.644000928 |
| 3 | 0.015 | 0.031 | 4 | -0.073 | 0.027 | 4 | -0.053 | 0.025 | 4 | 0.644233001 |
| 3 | -0.015 | 0.015 | 3 | 0.012 | 0.008 | 3 | 0.015 | 0.006 | 3 | 0.644465073 |
| 4 | -0.030 | 0.050 | 4 | 0.012 | 0.033 | 4 | 0.009 | 0.043 | 4 | 0.644697146 |
| 4 | 0.007 | 0.015 | 4 | 0.019 | 0.026 | 4 | 0.002 | 0.025 | 4 | 0.644929218 |
| 4 | 0.006 | 0.012 | 4 | -0.036 | 0.080 | 4 | 0.025 | 0.050 | 4 | 0.64516129 |
| 2 | 0.033 | 0.000 | 2 | 0.042 | 0.051 | 2 | 0.030 | 0.028 | 2 | 0.645393363 |
| 4 | -0.003 | 0.026 | 4 | 0.019 | 0.054 | 4 | -0.014 | 0.039 | 4 | 0.645625435 |
| 4 | 0.020 | 0.016 | 4 | 0.016 | 0.027 | 4 | 0.028 | 0.043 | 4 | 0.645857508 |
| 2 | -0.062 | 0.023 | 2 | 0.013 | 0.005 | 2 | -0.004 | 0.000 | 2 | 0.64608958 |
| 3 | 0.012 | 0.027 | 3 | 0.049 | 0.035 | 3 | -0.029 | 0.022 | 3 | 0.646321652 |
| 4 | -0.020 | 0.007 | 4 | -0.003 | 0.050 | 4 | -0.012 | 0.023 | 4 | 0.646553725 |
| 4 | 0.015 | 0.020 | 4 | 0.031 | 0.053 | 4 | 0.002 | 0.022 | 4 | 0.646785797 |
| 4 | -0.009 | 0.044 | 4 | -0.031 | 0.025 | 4 | -0.024 | 0.018 | 4 | 0.64701787 |
| 4 | 0.002 | 0.032 | 4 | -0.012 | 0.053 | 4 | 0.006 | 0.049 | 4 | 0.647249942 |
| 4 | 0.030 | 0.049 | 4 | 0.016 | 0.046 | 4 | 0.025 | 0.053 | 4 | 0.647482014 |
| 4 | 0.028 | 0.029 | 4 | 0.007 | 0.035 | 4 | -0.001 | 0.020 | 4 | 0.647714087 |
| 4 | 0.010 | 0.027 | 4 | -0.011 | 0.020 | 4 | 0.015 | 0.017 | 4 | 0.647946159 |
| 4 | 0.021 | 0.020 | 4 | 0.026 | 0.045 | 4 | 0.014 | 0.030 | 4 | 0.648178232 |
| 4 | -0.022 | 0.023 | 4 | 0.017 | 0.019 | 4 | 0.027 | 0.006 | 4 | 0.648410304 |
| 3 | 0.017 | 0.047 | 4 | 0.016 | 0.060 | 4 | 0.020 | 0.038 | 4 | 0.648642376 |
| 4 | -0.110 | 0.058 | 4 | -0.055 | 0.061 | 4 | 0.055 | 0.063 | 4 | 0.648874449 |
| 4 | -0.009 | 0.021 | 4 | 0.010 | 0.037 | 4 | -0.012 | 0.037 | 4 | 0.649106521 |
| 4 | 0.025 | 0.035 | 4 | -0.007 | 0.032 | 4 | 0.007 | 0.014 | 4 | 0.649338594 |
| 4 | 0.000 | 0.018 | 4 | 0.017 | 0.035 | 4 | 0.018 | 0.018 | 4 | 0.649570666 |
| 4 | -0.006 | 0.019 | 4 | -0.009 | 0.046 | 4 | -0.003 | 0.024 | 4 | 0.649802738 |
| 3 | 0.033 | 0.015 | 3 | 0.004 | 0.008 | 3 | -0.008 | 0.037 | 3 | 0.650034811 |
| 4 | -0.019 | 0.027 | 4 | 0.016 | 0.040 | 4 | -0.026 | 0.052 | 4 | 0.650266883 |
| 4 | -0.038 | 0.018 | 4 | -0.055 | 0.019 | 4 | 0.038 | 0.038 | 4 | 0.650498956 |
| 4 | -0.019 | 0.011 | 4 | 0.027 | 0.027 | 4 | -0.004 | 0.116 | 4 | 0.650731028 |
| 2 | 0.009 | 0.008 | 2 | -0.030 | 0.050 | 2 | 0.028 | 0.022 | 2 | 0.6509631 |
| 4 | -0.009 | 0.025 | 4 | 0.010 | 0.011 | 4 | 0.000 | 0.018 | 4 | 0.651195173 |
| 4 | 0.033 | 0.072 | 4 | -0.109 | 0.063 | 4 | 0.007 | 0.040 | 4 | 0.651427245 |

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|---|---|---|---|---|---|---|---|---|---|---|
| 4 | 0.002 | 0.055 | 4 | 0.081 | 0.048 | 4 | -0.007 | 0.019 | 4 | 0.651659318 |
| 4 | 0.022 | 0.022 | 4 | -0.021 | 0.052 | 4 | 0.035 | 0.020 | 4 | 0.65189139 |
| 4 | 0.001 | 0.011 | 4 | 0.007 | 0.027 | 4 | 0.017 | 0.009 | 4 | 0.652123463 |
| 4 | -0.010 | 0.029 | 4 | -0.003 | 0.027 | 4 | 0.008 | 0.019 | 4 | 0.652355535 |
| 4 | -0.012 | 0.012 | 4 | -0.029 | 0.066 | 4 | -0.028 | 0.040 | 4 | 0.652587607 |
| 4 | -0.014 | 0.012 | 4 | -0.012 | 0.041 | 4 | 0.030 | 0.023 | 4 | 0.65281968 |
| 4 | -0.083 | 0.047 | 4 | -0.077 | 0.076 | 4 | 0.058 | 0.072 | 4 | 0.653051752 |
| 4 | 0.026 | 0.045 | 4 | -0.033 | 0.046 | 4 | -0.025 | 0.045 | 4 | 0.653283825 |
| 4 | -0.008 | 0.024 | 4 | 0.001 | 0.057 | 4 | 0.011 | 0.044 | 4 | 0.653515897 |
| 3 | 0.021 | 0.026 | 4 | 0.013 | 0.036 | 4 | 0.014 | 0.029 | 4 | 0.653747969 |
| 4 | 0.030 | 0.062 | 4 | 0.048 | 0.054 | 4 | 0.009 | 0.053 | 4 | 0.653980042 |
| 4 | 0.003 | 0.034 | 4 | 0.021 | 0.012 | 4 | 0.035 | 0.020 | 4 | 0.654212114 |
| 4 | -0.002 | 0.045 | 4 | 0.013 | 0.037 | 4 | -0.003 | 0.038 | 4 | 0.654444187 |
| 4 | 0.012 | 0.022 | 4 | -0.021 | 0.062 | 4 | 0.054 | 0.017 | 4 | 0.654676259 |
| 2 | 0.002 | 0.053 | 3 | -0.016 | 0.063 | 3 | -0.023 | 0.032 | 3 | 0.654908331 |
| 2 | 0.015 | 0.008 | 2 | 0.017 | 0.037 | 2 | -0.008 | 0.028 | 2 | 0.655140404 |
| 4 | 0.021 | 0.026 | 4 | 0.023 | 0.050 | 4 | 0.036 | 0.037 | 4 | 0.655372476 |
| 3 | 0.048 | 0.041 | 3 | 0.001 | 0.027 | 3 | -0.177 | 0.027 | 3 | 0.655604549 |
| 4 | 0.027 | 0.057 | 4 | 0.021 | 0.028 | 4 | 0.027 | 0.024 | 4 | 0.655836621 |
| 3 | -0.012 | 0.014 | 4 | 0.010 | 0.014 | 4 | -0.029 | 0.035 | 4 | 0.656068693 |
| 4 | 0.002 | 0.021 | 4 | -0.003 | 0.045 | 4 | 0.031 | 0.029 | 4 | 0.656300766 |
| 4 | 0.033 | 0.006 | 4 | -0.024 | 0.062 | 4 | -0.006 | 0.014 | 4 | 0.656532838 |
| 4 | 0.030 | 0.014 | 4 | -0.006 | 0.033 | 4 | 0.043 | 0.016 | 4 | 0.656764911 |
| 3 | -0.032 | 0.023 | 4 | 0.126 | 0.078 | 4 | -0.043 | 0.012 | 4 | 0.656996983 |
| 4 | 0.026 | 0.014 | 4 | -0.009 | 0.017 | 4 | 0.011 | 0.022 | 4 | 0.657229055 |
| 4 | -0.010 | 0.027 | 4 | 0.045 | 0.042 | 4 | -0.016 | 0.048 | 4 | 0.657461128 |
| 3 | -0.028 | 0.057 | 4 | -0.063 | 0.033 | 4 | 0.029 | 0.080 | 4 | 0.6576932 |
| 3 | 0.001 | 0.053 | 4 | 0.034 | 0.044 | 4 | 0.089 | 0.028 | 4 | 0.657925273 |
| 4 | 0.004 | 0.018 | 4 | -0.004 | 0.012 | 4 | -0.008 | 0.016 | 4 | 0.658157345 |
| 3 | -0.011 | 0.018 | 4 | -0.006 | 0.039 | 4 | 0.017 | 0.026 | 4 | 0.658389417 |
| 4 | 0.019 | 0.022 | 4 | -0.019 | 0.049 | 4 | 0.014 | 0.031 | 4 | 0.65862149 |
| 4 | 0.043 | 0.017 | 4 | 0.005 | 0.056 | 4 | 0.016 | 0.025 | 4 | 0.658853562 |
| 4 | 0.040 | 0.024 | 4 | -0.029 | 0.043 | 4 | 0.002 | 0.054 | 4 | 0.659085635 |
| 4 | 0.044 | 0.038 | 4 | 0.038 | 0.038 | 4 | -0.106 | 0.213 | 4 | 0.659317707 |
| 4 | 0.011 | 0.058 | 4 | -0.036 | 0.036 | 4 | 0.024 | 0.040 | 4 | 0.65954978 |
| 4 | -0.012 | 0.029 | 4 | -0.008 | 0.042 | 4 | 0.010 | 0.023 | 4 | 0.659781852 |
| 4 | 0.036 | 0.021 | 4 | -0.005 | 0.021 | 4 | -0.011 | 0.017 | 4 | 0.660013924 |
| 4 | 0.016 | 0.035 | 4 | 0.012 | 0.075 | 4 | 0.034 | 0.061 | 4 | 0.660245997 |
| 4 | -0.009 | 0.033 | 4 | 0.004 | 0.029 | 4 | 0.012 | 0.011 | 4 | 0.660478069 |
| 4 | -0.001 | 0.031 | 4 | 0.038 | 0.070 | 4 | 0.007 | 0.042 | 4 | 0.660710142 |
| 4 | 0.053 | 0.011 | 4 | 0.014 | 0.016 | 4 | 0.007 | 0.022 | 4 | 0.660942214 |
| 4 | 0.028 | 0.027 | 4 | -0.022 | 0.018 | 4 | 0.003 | 0.017 | 4 | 0.661174286 |
| 4 | 0.060 | 0.028 | 4 | 0.018 | 0.041 | 4 | -0.005 | 0.009 | 4 | 0.661406359 |
| 2 | -0.023 | 0.079 | 3 | 0.007 | 0.066 | 3 | 0.044 | 0.033 | 3 | 0.661638431 |
| 4 | -0.006 | 0.057 | 4 | -0.086 | 0.093 | 4 | 0.049 | 0.024 | 4 | 0.661870504 |
| 4 | -0.013 | 0.016 | 4 | 0.020 | 0.036 | 4 | 0.025 | 0.016 | 4 | 0.662102576 |
| 4 | -0.015 | 0.037 | 4 | -0.021 | 0.059 | 4 | 0.019 | 0.040 | 4 | 0.662334648 |
| 2 | -0.011 | 0.030 | 2 | -0.026 | 0.013 | 2 | -0.011 | 0.009 | 2 | 0.662566721 |
| | 0.062 | 0.044 | 2 | -0.016 | 0.036 | 2 | -0.033 | 0.029 | 2 | 0.662798793 |
| 2 | 0.007 | 0.026 | 3 | 0.010 | 0.053 | 3 | -0.027 | 0.052 | 3 | 0.663030866 |
| 4 | 0.027 | 0.058 | 4 | -0.016 | 0.031 | 4 | 0.014 | 0.040 | 4 | 0.663262938 |
| 4 | -0.036 | 0.040 | 4 | 0.001 | 0.070 | 4 | 0.014 | 0.042 | 4 | 0.66349501 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 4 | -0.003 | 0.020 | 4 | -0.026 | 0.035 | 4 | 0.041 | 0.005 | 4 | 0.663727083 |
| 4 | -0.008 | 0.061 | 4 | -0.003 | 0.028 | 4 | 0.031 | 0.024 | 4 | 0.663959155 |
| 4 | 0.045 | 0.015 | 4 | -0.010 | 0.035 | 4 | -0.012 | 0.021 | 4 | 0.664191228 |
| 2 | -0.097 | 0.034 | 2 | -0.017 | 0.001 | 2 | 0.060 | 0.009 | 2 | 0.6644233 |
| 4 | 0.038 | 0.044 | 4 | 0.015 | 0.041 | 4 | -0.025 | 0.030 | 4 | 0.664655372 |
| 2 | 0.070 | 0.112 | 2 | -0.009 | 0.052 | 2 | -0.014 | 0.041 | 2 | 0.664887445 |
| 4 | 0.009 | 0.019 | 4 | 0.006 | 0.050 | 4 | 0.010 | 0.016 | 4 | 0.665119517 |
| 4 | -0.010 | 0.013 | 4 | -0.047 | 0.096 | 4 | 0.053 | 0.053 | 4 | 0.66535159 |
| 3 | 0.012 | 0.020 | 3 | -0.023 | 0.047 | 3 | -0.010 | 0.028 | 3 | 0.665583662 |
| 4 | -0.035 | 0.040 | 4 | 0.025 | 0.061 | 4 | 0.015 | 0.069 | 4 | 0.665815735 |
| 4 | -0.012 | 0.033 | 4 | -0.004 | 0.056 | 4 | -0.016 | 0.025 | 4 | 0.666047807 |
| 4 | -0.001 | 0.026 | 4 | -0.007 | 0.052 | 4 | 0.024 | 0.019 | 4 | 0.666279879 |
| 4 | 0.025 | 0.028 | 4 | 0.002 | 0.038 | 4 | -0.047 | 0.048 | 4 | 0.666511952 |
| 4 | 0.006 | 0.012 | 4 | 0.012 | 0.028 | 4 | 0.026 | 0.008 | 4 | 0.666744024 |
| 2 | 0.018 | 0.065 | 3 | -0.047 | 0.024 | 3 | 0.032 | 0.005 | 3 | 0.666976097 |
| 4 | -0.003 | 0.036 | 4 | 0.011 | 0.056 | 4 | 0.018 | 0.038 | 4 | 0.667208169 |
| 4 | -0.007 | 0.024 | 4 | -0.003 | 0.010 | 4 | 0.040 | 0.022 | 4 | 0.667440241 |
| 4 | 0.021 | 0.048 | 4 | 0.016 | 0.060 | 4 | -0.007 | 0.049 | 4 | 0.667672314 |
| 4 | 0.020 | 0.018 | 4 | 0.015 | 0.017 | 4 | -0.008 | 0.012 | 4 | 0.667904386 |
| 4 | 0.013 | 0.034 | 4 | 0.002 | 0.032 | 4 | 0.023 | 0.026 | 4 | 0.668136459 |
| 4 | 0.002 | 0.034 | 4 | 0.030 | 0.024 | 4 | 0.016 | 0.018 | 4 | 0.668368531 |
| 3 | 0.001 | 0.034 | 3 | -0.010 | 0.046 | 3 | 0.018 | 0.021 | 3 | 0.668600603 |
| 4 | 0.005 | 0.040 | 4 | 0.000 | 0.038 | 4 | 0.039 | 0.040 | 4 | 0.668832676 |
| 4 | -0.022 | 0.020 | 4 | 0.007 | 0.037 | 4 | 0.048 | 0.036 | 4 | 0.669064748 |
| 4 | -0.015 | 0.011 | 4 | 0.017 | 0.057 | 4 | 0.030 | 0.010 | 4 | 0.669296821 |
| 4 | -0.017 | 0.006 | 4 | -0.005 | 0.048 | 4 | 0.026 | 0.016 | 4 | 0.669528893 |
| 4 | 0.018 | 0.009 | 4 | 0.001 | 0.030 | 4 | 0.001 | 0.025 | 4 | 0.669760965 |
| 4 | 0.052 | 0.025 | 4 | 0.023 | 0.019 | 4 | 0.042 | 0.027 | 4 | 0.669993038 |
| 4 | -0.024 | 0.016 | 4 | 0.002 | 0.048 | 4 | -0.021 | 0.026 | 4 | 0.67022511 |
| 4 | 0.033 | 0.053 | 4 | 0.073 | 0.046 | 4 | -0.036 | 0.024 | 4 | 0.670457183 |
| 4 | -0.015 | 0.020 | 4 | -0.022 | 0.048 | 4 | 0.037 | 0.040 | 4 | 0.670689255 |
| 4 | 0.016 | 0.049 | 4 | 0.022 | 0.072 | 4 | 0.016 | 0.064 | 4 | 0.670921327 |
| 3 | 0.049 | 0.029 | 4 | -0.001 | 0.052 | 4 | -0.052 | 0.018 | 4 | 0.6711534 |
| 2 | -0.006 | 0.003 | 2 | -0.007 | 0.018 | 2 | -0.005 | 0.020 | 2 | 0.671385472 |
| 4 | 0.060 | 0.026 | 4 | -0.004 | 0.046 | 4 | 0.002 | 0.045 | 4 | 0.671617545 |
| 2 | -0.034 | 0.036 | 2 | -0.045 | 0.007 | 2 | 0.013 | 0.015 | 2 | 0.671849617 |
| 3 | -0.021 | 0.025 | 4 | 0.001 | 0.074 | 4 | 0.011 | 0.076 | 4 | 0.672081689 |
| 4 | 0.021 | 0.013 | 4 | -0.031 | 0.066 | 4 | -0.006 | 0.057 | 4 | 0.672313762 |
| 2 | -0.066 | 0.027 | 3 | 0.012 | 0.035 | 3 | 0.079 | 0.014 | 3 | 0.672545834 |
| 4 | 0.032 | 0.056 | 4 | 0.083 | 0.069 | 4 | -0.053 | 0.211 | 4 | 0.672777907 |
| 3 | 0.006 | 0.020 | 4 | -0.004 | 0.054 | 4 | 0.013 | 0.027 | 4 | 0.673009979 |
| 4 | 0.004 | 0.021 | 4 | 0.018 | 0.032 | 4 | 0.015 | 0.013 | 4 | 0.673242052 |
| 4 | -0.047 | 0.061 | 4 | -0.015 | 0.067 | 4 | -0.014 | 0.018 | 4 | 0.673474124 |
| 4 | -0.024 | 0.029 | 4 | 0.001 | 0.054 | 4 | -0.014 | 0.066 | 4 | 0.673706196 |
| 4 | 0.025 | 0.025 | 4 | -0.025 | 0.041 | 4 | -0.001 | 0.026 | 4 | 0.673938269 |
| 4 | -0.012 | 0.010 | 4 | -0.016 | 0.047 | 4 | 0.020 | 0.018 | 4 | 0.674170341 |
| 4 | 0.053 | 0.019 | 4 | -0.024 | 0.049 | 4 | 0.025 | 0.039 | 4 | 0.674402414 |
| 3 | 0.017 | 0.068 | 3 | 0.038 | 0.064 | 3 | 0.010 | 0.053 | 3 | 0.674634486 |
| 4 | 0.002 | 0.042 | 4 | -0.002 | 0.024 | 4 | 0.001 | 0.017 | 4 | 0.674866558 |
| 4 | 0.005 | 0.012 | 4 | 0.022 | 0.034 | 4 | 0.013 | 0.010 | 4 | 0.675098631 |
| 2 | -0.061 | 0.032 | 2 | -0.019 | 0.040 | 2 | 0.030 | 0.024 | 2 | 0.675330703 |
| 4 | -0.010 | 0.010 | 4 | 0.016 | 0.024 | 4 | 0.029 | 0.014 | 4 | 0.675562776 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 4 | -0.013 | 0.049 | 4 | 0.022 | 0.037 | 4 | 0.007 | 0.032 | 4 | 0.675794848 |
| 4 | 0.021 | 0.022 | 4 | -0.024 | 0.053 | 4 | 0.020 | 0.015 | 4 | 0.67602692 |
| 4 | 0.000 | 0.027 | 4 | 0.010 | 0.068 | 4 | 0.017 | 0.062 | 4 | 0.676258993 |
| 2 | -0.037 | 0.057 | 2 | 0.023 | 0.075 | 2 | 0.031 | 0.059 | 2 | 0.676491065 |
| 4 | -0.014 | 0.050 | 4 | -0.010 | 0.042 | 4 | -0.003 | 0.050 | 4 | 0.676723138 |
| 4 | 0.029 | 0.025 | 4 | 0.000 | 0.040 | 4 | 0.034 | 0.015 | 4 | 0.67695521 |
| 2 | -0.168 | 0.001 | 2 | -0.155 | 0.006 | 2 | 0.116 | 0.020 | 2 | 0.677187282 |
| 4 | -0.003 | 0.012 | 4 | -0.025 | 0.057 | 4 | -0.009 | 0.029 | 4 | 0.677419355 |
| 4 | 0.007 | 0.044 | 4 | -0.097 | 0.068 | 4 | 0.027 | 0.023 | 4 | 0.677651427 |
| 4 | 0.034 | 0.042 | 4 | 0.022 | 0.031 | 4 | 0.007 | 0.036 | 4 | 0.6778835 |
| 4 | 0.016 | 0.045 | 4 | 0.038 | 0.043 | 4 | -0.012 | 0.012 | 4 | 0.678115572 |
| 4 | 0.000 | 0.018 | 4 | -0.020 | 0.019 | 4 | 0.009 | 0.003 | 4 | 0.678347644 |
| 4 | -0.015 | 0.038 | 4 | 0.033 | 0.041 | 4 | -0.005 | 0.032 | 4 | 0.678579717 |
| 4 | 0.010 | 0.020 | 4 | 0.001 | 0.026 | 4 | 0.011 | 0.011 | 4 | 0.678811789 |
| 4 | 0.025 | 0.050 | 4 | 0.019 | 0.034 | 4 | -0.024 | 0.018 | 4 | 0.679043862 |
| 4 | -0.035 | 0.025 | 4 | 0.036 | 0.018 | 4 | 0.009 | 0.058 | 4 | 0.679275934 |
| 4 | 0.010 | 0.013 | 4 | -0.018 | 0.045 | 4 | -0.003 | 0.024 | 4 | 0.679508006 |
| 4 | 0.026 | 0.023 | 4 | -0.004 | 0.054 | 4 | -0.035 | 0.030 | 4 | 0.679740079 |
| 4 | -0.038 | 0.031 | 4 | 0.003 | 0.072 | 4 | 0.029 | 0.053 | 4 | 0.679972151 |
| 4 | 0.022 | 0.019 | 4 | 0.013 | 0.034 | 4 | 0.040 | 0.019 | 4 | 0.680204224 |
| 2 | 0.006 | 0.022 | 2 | 0.015 | 0.069 | 2 | 0.026 | 0.024 | 2 | 0.680436296 |
| 4 | 0.004 | 0.026 | 4 | -0.014 | 0.054 | 4 | -0.014 | 0.047 | 4 | 0.680668369 |
| 4 | -0.023 | 0.024 | 4 | 0.006 | 0.041 | 4 | 0.029 | 0.014 | 4 | 0.680900441 |
| 4 | 0.005 | 0.012 | 4 | 0.006 | 0.049 | 4 | 0.008 | 0.041 | 4 | 0.681132513 |
| 4 | 0.015 | 0.023 | 4 | -0.018 | 0.054 | 4 | 0.016 | 0.024 | 4 | 0.681364586 |
| 4 | 0.016 | 0.032 | 4 | 0.015 | 0.103 | 4 | -0.016 | 0.045 | 4 | 0.681596658 |
| 4 | -0.003 | 0.033 | 4 | 0.008 | 0.060 | 4 | 0.042 | 0.016 | 4 | 0.681828731 |
| 4 | 0.049 | 0.028 | 4 | 0.047 | 0.036 | 4 | 0.006 | 0.021 | 4 | 0.682060803 |
| 4 | 0.031 | 0.032 | 4 | -0.014 | 0.027 | 4 | -0.002 | 0.017 | 4 | 0.682292875 |
| 4 | 0.011 | 0.033 | 4 | 0.023 | 0.040 | 4 | 0.015 | 0.023 | 4 | 0.682524948 |
| 4 | -0.012 | 0.010 | 4 | -0.015 | 0.011 | 4 | -0.007 | 0.010 | 4 | 0.68275702 |
| 3 | -0.017 | 0.016 | 4 | 0.011 | 0.022 | 4 | -0.002 | 0.019 | 4 | 0.682989093 |
| 2 | 0.044 | 0.040 | 2 | -0.034 | 0.000 | 2 | 0.004 | 0.006 | 2 | 0.683221165 |
| 4 | -0.005 | 0.027 | 4 | -0.020 | 0.038 | 4 | 0.012 | 0.052 | 4 | 0.683453237 |
| 4 | 0.007 | 0.031 | 4 | -0.004 | 0.025 | 4 | 0.000 | 0.019 | 4 | 0.68368531 |
| 4 | 0.009 | 0.027 | 4 | 0.033 | 0.031 | 4 | -0.066 | 0.136 | 4 | 0.683917382 |
| 4 | -0.015 | 0.034 | 4 | 0.014 | 0.022 | 4 | 0.000 | 0.028 | 4 | 0.684149455 |
| 4 | -0.016 | 0.036 | 4 | 0.014 | 0.030 | 4 | 0.020 | 0.020 | 4 | 0.684381527 |
| 4 | 0.027 | 0.027 | 4 | -0.016 | 0.041 | 4 | -0.011 | 0.006 | 4 | 0.684613599 |
| 4 | 0.016 | 0.040 | 4 | -0.019 | 0.031 | 4 | 0.015 | 0.041 | 4 | 0.684845672 |
| 4 | 0.012 | 0.028 | 4 | -0.050 | 0.030 | 4 | 0.059 | 0.011 | 4 | 0.685077744 |
| 4 | 0.008 | 0.033 | 4 | 0.002 | 0.054 | 4 | 0.020 | 0.029 | 4 | 0.685309817 |
| 4 | 0.015 | 0.024 | 4 | -0.018 | 0.035 | 4 | -0.002 | 0.023 | 4 | 0.685541889 |
| 4 | -0.007 | 0.036 | 4 | 0.017 | 0.029 | 4 | 0.013 | 0.026 | 4 | 0.685773961 |
| 3 | -0.004 | 0.033 | 4 | 0.021 | 0.025 | 4 | 0.006 | 0.011 | 4 | 0.686006034 |
| 4 | -0.001 | 0.029 | 4 | -0.004 | 0.034 | 4 | 0.006 | 0.020 | 4 | 0.686238106 |
| 4 | 0.005 | 0.035 | 4 | -0.001 | 0.049 | 4 | 0.015 | 0.070 | 4 | 0.686470179 |
| 4 | 0.012 | 0.014 | 4 | -0.003 | 0.039 | 4 | 0.011 | 0.027 | 4 | 0.686702251 |
| 4 | -0.013 | 0.011 | 4 | -0.011 | 0.058 | 4 | 0.024 | 0.007 | 4 | 0.686934324 |
| 3 | -0.002 | 0.017 | 4 | -0.021 | 0.031 | 4 | 0.035 | 0.027 | 4 | 0.687166396 |
| 4 | 0.023 | 0.011 | 4 | -0.051 | 0.024 | 4 | 0.090 | 0.027 | 4 | 0.687398468 |
| 4 | 0.010 | 0.023 | 4 | 0.023 | 0.040 | 4 | 0.011 | 0.039 | 4 | 0.687630541 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 4 | 0.004 | 0.015 | 4 | 0.032 | 0.043 | 4 | -0.018 | 0.019 | 4 | 0.687862613 |
| 4 | 0.026 | 0.024 | 4 | -0.002 | 0.061 | 4 | -0.030 | 0.040 | 4 | 0.688094686 |
| 3 | 0.009 | 0.011 | 4 | 0.017 | 0.035 | 4 | 0.017 | 0.014 | 4 | 0.688326758 |
| 4 | 0.043 | 0.024 | 4 | 0.029 | 0.047 | 4 | 0.035 | 0.067 | 4 | 0.68855883 |
| 4 | 0.037 | 0.028 | 4 | -0.009 | 0.049 | 4 | 0.010 | 0.023 | 4 | 0.688790903 |
| 4 | -0.012 | 0.033 | 4 | 0.083 | 0.028 | 4 | 0.031 | 0.021 | 4 | 0.689022975 |
| 3 | 0.031 | 0.017 | 4 | -0.026 | 0.031 | 4 | 0.005 | 0.028 | 4 | 0.689255048 |
| 4 | 0.012 | 0.037 | 4 | -0.027 | 0.049 | 4 | 0.058 | 0.027 | 4 | 0.68948712 |
| 4 | 0.061 | 0.052 | 4 | 0.035 | 0.056 | 4 | -0.015 | 0.033 | 4 | 0.689719192 |
| 4 | -0.010 | 0.020 | 4 | -0.007 | 0.065 | 4 | 0.018 | 0.032 | 4 | 0.689951265 |
| 4 | 0.007 | 0.042 | 4 | 0.022 | 0.049 | 4 | 0.015 | 0.030 | 4 | 0.690183337 |
| 4 | -0.010 | 0.011 | 4 | 0.039 | 0.034 | 4 | 0.002 | 0.003 | 4 | 0.69041541 |
| 4 | 0.001 | 0.016 | 4 | 0.004 | 0.029 | 4 | 0.027 | 0.013 | 4 | 0.690647482 |
| 4 | 0.019 | 0.020 | 4 | 0.011 | 0.039 | 4 | 0.032 | 0.012 | 4 | 0.690879554 |
| 4 | 0.032 | 0.038 | 4 | 0.020 | 0.040 | 4 | 0.014 | 0.028 | 4 | 0.691111627 |
| 4 | 0.028 | 0.038 | 4 | 0.011 | 0.037 | 4 | 0.007 | 0.039 | 4 | 0.691343699 |
| 4 | 0.043 | 0.031 | 4 | 0.037 | 0.041 | 4 | 0.028 | 0.019 | 4 | 0.691575772 |
| 4 | 0.000 | 0.024 | 4 | -0.020 | 0.035 | 4 | 0.001 | 0.019 | 4 | 0.691807844 |
| 4 | 0.011 | 0.029 | 4 | 0.007 | 0.073 | 4 | -0.017 | 0.035 | 4 | 0.692039916 |
| | -0.133 | 0.019 | 2 | 0.068 | 0.133 | 2 | 0.087 | 0.021 | 2 | 0.692271989 |
| 4 | -0.001 | 0.028 | 4 | 0.044 | 0.029 | 4 | 0.033 | 0.013 | 4 | 0.692504061 |
| 4 | -0.010 | 0.057 | 4 | 0.019 | 0.032 | 4 | 0.009 | 0.035 | 4 | 0.692736134 |
| 2 | -0.010 | 0.016 | 2 | 0.028 | 0.038 | 2 | 0.010 | 0.026 | 2 | 0.692968206 |
| 4 | 0.006 | 0.027 | 4 | 0.034 | 0.026 | 4 | -0.016 | 0.024 | 4 | 0.693200278 |
| 3 | -0.065 | 0.027 | 3 | -0.012 | 0.090 | 3 | 0.037 | 0.075 | 3 | 0.693432351 |
| 4 | -0.121 | 0.031 | 4 | 0.080 | 0.020 | 4 | 0.176 | 0.022 | 4 | 0.693664423 |
| 4 | 0.045 | 0.040 | 4 | -0.050 | 0.040 | 4 | 0.001 | 0.031 | 4 | 0.693896496 |
| 4 | -0.182 | 0.019 | 4 | -0.085 | 0.035 | 4 | 0.158 | 0.020 | 4 | 0.694128568 |
| 4 | -0.025 | 0.030 | 4 | 0.009 | 0.042 | 4 | 0.045 | 0.021 | 4 | 0.694360641 |
| 4 | 0.003 | 0.021 | 4 | -0.013 | 0.025 | 4 | 0.019 | 0.014 | 4 | 0.694592713 |
| 3 | 0.043 | 0.017 | 3 | -0.012 | 0.045 | 3 | 0.014 | 0.026 | 3 | 0.694824785 |
| 3 | 0.046 | 0.024 | 4 | 0.133 | 0.054 | 4 | -0.031 | 0.060 | 4 | 0.695056858 |
| 4 | 0.046 | 0.033 | 4 | 0.022 | 0.032 | 4 | 0.019 | 0.029 | 4 | 0.69528893 |
| 4 | 0.004 | 0.012 | 4 | 0.018 | 0.020 | 4 | 0.016 | 0.014 | 4 | 0.695521003 |
| 4 | -0.011 | 0.040 | 4 | -0.011 | 0.045 | 4 | -0.017 | 0.043 | 4 | 0.695753075 |
| 4 | 0.043 | 0.010 | 4 | 0.007 | 0.026 | 4 | 0.013 | 0.023 | 4 | 0.695985147 |
| 2 | 0.112 | 0.024 | 3 | -0.038 | 0.079 | 3 | 0.003 | 0.020 | 3 | 0.69621722 |
| 4 | 0.037 | 0.055 | 4 | -0.036 | 0.050 | 4 | 0.004 | 0.110 | 4 | 0.696449292 |
| 2 | 0.039 | 0.019 | 2 | -0.001 | 0.000 | 2 | -0.049 | 0.026 | 2 | 0.696681365 |
| 4 | 0.043 | 0.039 | 4 | 0.008 | 0.084 | 4 | -0.038 | 0.037 | 4 | 0.696913437 |
| 4 | 0.050 | 0.044 | 4 | -0.040 | 0.036 | 4 | 0.033 | 0.062 | 4 | 0.697145509 |
| 4 | 0.002 | 0.017 | 4 | -0.025 | 0.026 | 4 | 0.023 | 0.030 | 4 | 0.697377582 |
| 3 | 0.001 | 0.015 | 4 | 0.011 | 0.047 | 4 | 0.048 | 0.040 | 4 | 0.697609654 |
| 4 | 0.018 | 0.036 | 4 | 0.006 | 0.037 | 4 | 0.028 | 0.023 | 4 | 0.697841727 |
| 4 | 0.022 | 0.023 | 4 | 0.015 | 0.081 | 4 | 0.036 | 0.043 | 4 | 0.698073799 |
| 4 | 0.001 | 0.034 | 4 | 0.037 | 0.041 | 4 | 0.017 | 0.046 | 4 | 0.698305871 |
| 4 | -0.003 | 0.019 | 4 | 0.033 | 0.058 | 4 | 0.012 | 0.023 | 4 | 0.698537944 |
| 4 | 0.017 | 0.011 | 4 | 0.038 | 0.027 | 4 | 0.015 | 0.018 | 4 | 0.698770016 |
| 4 | -0.005 | 0.023 | 4 | -0.032 | 0.050 | 4 | 0.063 | 0.016 | 4 | 0.699002089 |
| 4 | 0.018 | 0.012 | 4 | -0.012 | 0.052 | 4 | 0.019 | 0.039 | 4 | 0.699234161 |
| 4 | -0.034 | 0.020 | 4 | -0.039 | 0.052 | 4 | 0.010 | 0.021 | 4 | 0.699466233 |
| 4 | 0.010 | 0.019 | 4 | -0.028 | 0.031 | 4 | 0.011 | 0.008 | 4 | 0.699698306 |

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|---|---|---|---|---|---|---|---|---|---|---|
| 4 | 0.006 | 0.026 | 4 | 0.013 | 0.024 | 4 | 0.013 | 0.030 | 4 | 0.699930378 |
| 4 | 0.010 | 0.055 | 4 | -0.006 | 0.049 | 4 | 0.024 | 0.067 | 4 | 0.700162451 |
| 4 | -0.004 | 0.017 | 4 | 0.042 | 0.038 | 4 | 0.037 | 0.031 | 4 | 0.700394523 |
| 3 | 0.012 | 0.044 | 3 | -0.016 | 0.022 | 3 | 0.010 | 0.019 | 3 | 0.700626595 |
| 4 | 0.014 | 0.012 | 4 | 0.002 | 0.048 | 4 | 0.014 | 0.029 | 4 | 0.700858668 |
| 4 | 0.005 | 0.019 | 4 | 0.021 | 0.028 | 4 | -0.007 | 0.021 | 4 | 0.70109074 |
| 4 | 0.045 | 0.011 | 4 | -0.007 | 0.043 | 4 | -0.002 | 0.032 | 4 | 0.701322813 |
| 4 | -0.031 | 0.021 | 4 | 0.006 | 0.021 | 4 | 0.013 | 0.011 | 4 | 0.701554885 |
| 3 | -0.002 | 0.027 | 3 | 0.014 | 0.023 | 3 | 0.031 | 0.021 | 3 | 0.701786958 |
| 4 | 0.046 | 0.033 | 4 | -0.007 | 0.055 | 4 | -0.016 | 0.038 | 4 | 0.70201903 |
| 4 | -0.006 | 0.048 | 4 | 0.033 | 0.050 | 4 | -0.017 | 0.036 | 4 | 0.702251102 |
| 3 | 0.009 | 0.010 | 3 | -0.009 | 0.048 | 3 | 0.017 | 0.028 | 3 | 0.702483175 |
| 3 | -0.048 | 0.034 | 4 | 0.021 | 0.056 | 4 | 0.062 | 0.067 | 4 | 0.702715247 |
| 4 | 0.020 | 0.025 | 4 | 0.042 | 0.048 | 4 | 0.006 | 0.022 | 4 | 0.70294732 |
| 4 | 0.003 | 0.016 | 4 | 0.010 | 0.037 | 4 | 0.003 | 0.028 | 4 | 0.703179392 |
| 4 | 0.006 | 0.022 | 4 | 0.021 | 0.027 | 4 | 0.016 | 0.010 | 4 | 0.703411464 |
| 4 | 0.002 | 0.009 | 4 | -0.030 | 0.077 | 4 | 0.043 | 0.026 | 4 | 0.703643537 |
| 4 | 0.018 | 0.035 | 4 | -0.004 | 0.051 | 4 | -0.001 | 0.032 | 4 | 0.703875609 |
| 2 | 0.004 | 0.046 | 2 | -0.007 | 0.008 | 2 | 0.044 | 0.009 | 2 | 0.704107682 |
| 2 | 0.012 | 0.047 | 3 | 0.024 | 0.045 | 3 | 0.023 | 0.031 | 3 | 0.704339754 |
| 4 | 0.025 | 0.012 | 4 | 0.009 | 0.059 | 4 | 0.034 | 0.059 | 4 | 0.704571826 |
| 4 | 0.003 | 0.022 | 4 | 0.053 | 0.036 | 4 | 0.031 | 0.019 | 4 | 0.704803899 |
| 4 | 0.030 | 0.050 | 4 | 0.010 | 0.041 | 4 | -0.025 | 0.036 | 4 | 0.705035971 |
| 4 | 0.035 | 0.031 | 4 | 0.036 | 0.059 | 4 | 0.009 | 0.048 | 4 | 0.705268044 |
| 4 | -0.019 | 0.017 | 4 | 0.064 | 0.044 | 4 | -0.025 | 0.009 | 4 | 0.705500116 |
| 4 | -0.015 | 0.027 | 4 | -0.042 | 0.042 | 4 | -0.018 | 0.035 | 4 | 0.705732188 |
| 4 | 0.021 | 0.044 | 4 | 0.048 | 0.041 | 4 | 0.045 | 0.030 | 4 | 0.705964261 |
| 2 | -0.094 | 0.007 | 3 | -0.051 | 0.006 | 3 | 0.153 | 0.044 | 3 | 0.706196333 |
| 2 | 0.009 | 0.019 | 2 | 0.016 | 0.011 | 2 | 0.029 | 0.003 | 2 | 0.706428406 |
| 4 | 0.022 | 0.009 | 4 | -0.020 | 0.042 | 4 | 0.011 | 0.020 | 4 | 0.706660478 |
| 4 | 0.045 | 0.007 | 4 | 0.004 | 0.029 | 4 | -0.021 | 0.010 | 4 | 0.70689255 |
| 4 | 0.020 | 0.033 | 4 | -0.011 | 0.076 | 4 | 0.009 | 0.029 | 4 | 0.707124623 |
| 2 | -0.014 | 0.018 | 2 | 0.007 | 0.042 | 2 | 0.034 | 0.020 | 2 | 0.707356695 |
| 4 | 0.014 | 0.029 | 4 | -0.006 | 0.027 | 4 | 0.016 | 0.011 | 4 | 0.707588768 |
| 4 | 0.002 | 0.040 | 4 | -0.005 | 0.027 | 4 | 0.013 | 0.032 | 4 | 0.70782084 |
| 4 | 0.032 | 0.038 | 4 | -0.035 | 0.048 | 4 | 0.046 | 0.028 | 4 | 0.708052913 |
| 4 | 0.007 | 0.019 | 4 | 0.007 | 0.045 | 4 | 0.013 | 0.027 | 4 | 0.708284985 |
| 4 | 0.093 | 0.016 | 4 | 0.060 | 0.018 | 4 | -0.191 | 0.270 | 4 | 0.708517057 |
| 4 | 0.031 | 0.026 | 4 | 0.041 | 0.066 | 4 | 0.009 | 0.028 | 4 | 0.70874913 |
| 4 | 0.043 | 0.052 | 4 | 0.038 | 0.034 | 4 | -0.019 | 0.028 | 4 | 0.708981202 |
| 4 | 0.026 | 0.018 | 4 | 0.025 | 0.027 | 4 | 0.000 | 0.034 | 4 | 0.709213275 |
| 4 | -0.019 | 0.037 | 4 | 0.011 | 0.034 | 4 | 0.039 | 0.021 | 4 | 0.709445347 |
| 4 | 0.003 | 0.016 | 4 | -0.010 | 0.038 | 4 | -0.019 | 0.032 | 4 | 0.709677419 |
| 4 | 0.038 | 0.054 | 4 | -0.010 | 0.047 | 4 | -0.030 | 0.019 | 4 | 0.709909492 |
| 4 | 0.004 | 0.013 | 4 | -0.008 | 0.027 | 4 | 0.028 | 0.029 | 4 | 0.710141564 |
| 4 | 0.021 | 0.040 | 4 | 0.006 | 0.044 | 4 | -0.009 | 0.046 | 4 | 0.710373637 |
| | 0.005 | 0.018 | 3 | 0.023 | 0.055 | 3 | 0.001 | 0.013 | 3 | 0.710605709 |
| 4 | -0.019 | 0.027 | 4 | -0.001 | 0.013 | 4 | -0.006 | 0.023 | 4 | 0.710837781 |
| 4 | 0.037 | 0.015 | 4 | -0.016 | 0.028 | 4 | 0.006 | 0.027 | 4 | 0.711069854 |
| 4 | -0.007 | 0.028 | 4 | 0.037 | 0.037 | 4 | 0.030 | 0.025 | 4 | 0.711301926 |
| 2 | 0.005 | 0.012 | 2 | -0.035 | 0.001 | 2 | 0.026 | 0.011 | 2 | 0.711533999 |
| 4 | 0.018 | 0.027 | 4 | 0.017 | 0.081 | 4 | 0.018 | 0.092 | 4 | 0.711766071 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 4 | 0.013 | 0.021 | 4 | -0.003 | 0.033 | 4 | 0.021 | 0.018 | 4 | 0.711998143 |
| 4 | 0.013 | 0.023 | 4 | 0.025 | 0.028 | 4 | 0.027 | 0.015 | 4 | 0.712230216 |
| 2 | -0.005 | 0.035 | 2 | 0.030 | 0.026 | 2 | 0.018 | 0.022 | 2 | 0.712462288 |
| 2 | 0.002 | 0.048 | 4 | 0.003 | 0.045 | 4 | -0.014 | 0.023 | 4 | 0.712694361 |
| 4 | -0.027 | 0.049 | 4 | -0.003 | 0.017 | 4 | 0.019 | 0.012 | 4 | 0.712926433 |
| 3 | -0.011 | 0.050 | 4 | -0.004 | 0.049 | 4 | -0.012 | 0.033 | 4 | 0.713158505 |
| 4 | 0.014 | 0.037 | 4 | 0.032 | 0.037 | 4 | 0.035 | 0.033 | 4 | 0.713390578 |
| 2 | 0.030 | 0.007 | 2 | 0.058 | 0.009 | 2 | -0.008 | 0.014 | 2 | 0.71362265 |
| 4 | 0.024 | 0.021 | 4 | 0.013 | 0.039 | 4 | 0.010 | 0.021 | 4 | 0.713854723 |
| 4 | 0.030 | 0.033 | 4 | 0.022 | 0.044 | 4 | 0.066 | 0.033 | 4 | 0.714086795 |
| 4 | -0.018 | 0.034 | 4 | 0.045 | 0.020 | 4 | -0.080 | 0.145 | 4 | 0.714318867 |
| 4 | -0.064 | 0.072 | 4 | 0.020 | 0.042 | 4 | 0.146 | 0.027 | 4 | 0.71455094 |
| 3 | -0.001 | 0.016 | 3 | -0.009 | 0.039 | 3 | 0.018 | 0.015 | 3 | 0.714783012 |
| 4 | 0.008 | 0.061 | 4 | 0.046 | 0.032 | 4 | 0.019 | 0.034 | 4 | 0.715015085 |
| 2 | -0.001 | 0.030 | 2 | -0.109 | 0.004 | 2 | 0.023 | 0.010 | 2 | 0.715247157 |
| 2 | -0.021 | 0.008 | 2 | 0.030 | 0.014 | 2 | 0.018 | 0.006 | 2 | 0.71547923 |
| 4 | -0.031 | 0.041 | 4 | -0.015 | 0.029 | 4 | -0.017 | 0.022 | 4 | 0.715711302 |
| 2 | 0.036 | 0.022 | 2 | 0.003 | 0.038 | 2 | 0.025 | 0.009 | 2 | 0.715943374 |
| 4 | -0.025 | 0.036 | 4 | -0.033 | 0.042 | 4 | 0.026 | 0.027 | 4 | 0.716175447 |
| 4 | -0.024 | 0.052 | 4 | 0.011 | 0.058 | 4 | 0.026 | 0.034 | 4 | 0.716407519 |
| 3 | -0.004 | 0.049 | 4 | -0.043 | 0.083 | 4 | 0.078 | 0.020 | 4 | 0.716639592 |
| 4 | 0.075 | 0.024 | 4 | -0.013 | 0.046 | 4 | 0.003 | 0.065 | 4 | 0.716871664 |
| 2 | -0.024 | 0.011 | 2 | 0.027 | 0.045 | 2 | -0.003 | 0.006 | 2 | 0.717103736 |
| 4 | 0.090 | 0.074 | 4 | -0.030 | 0.065 | 4 | 0.046 | 0.052 | 4 | 0.717335809 |
| 4 | 0.007 | 0.016 | 4 | -0.004 | 0.042 | 4 | 0.015 | 0.049 | 4 | 0.717567881 |
| 4 | 0.002 | 0.008 | 4 | 0.017 | 0.036 | 4 | -0.004 | 0.003 | 4 | 0.717799954 |
| 4 | 0.018 | 0.025 | 4 | -0.004 | 0.040 | 4 | 0.067 | 0.043 | 4 | 0.718032026 |
| 4 | 0.021 | 0.007 | 4 | 0.019 | 0.033 | 4 | 0.055 | 0.016 | 4 | 0.718264098 |
| 4 | -0.029 | 0.025 | 4 | 0.038 | 0.037 | 4 | 0.017 | 0.033 | 4 | 0.718496171 |
| 3 | 0.023 | 0.037 | 4 | 0.010 | 0.057 | 4 | 0.000 | 0.012 | 4 | 0.718728243 |
| 4 | 0.020 | 0.013 | 4 | 0.017 | 0.030 | 4 | 0.032 | 0.024 | 4 | 0.718960316 |
| 3 | 0.061 | 0.047 | 3 | 0.017 | 0.055 | 3 | 0.006 | 0.022 | 3 | 0.719192388 |
| 4 | -0.002 | 0.030 | 4 | -0.002 | 0.023 | 4 | 0.042 | 0.010 | 4 | 0.71942446 |
| 4 | 0.014 | 0.030 | 4 | 0.054 | 0.040 | 4 | 0.011 | 0.028 | 4 | 0.719656533 |
| 4 | -0.010 | 0.029 | 4 | 0.010 | 0.035 | 4 | 0.036 | 0.032 | 4 | 0.719888605 |
| 4 | 0.028 | 0.012 | 4 | -0.003 | 0.026 | 4 | 0.039 | 0.034 | 4 | 0.720120678 |
| 4 | 0.018 | 0.037 | 4 | 0.004 | 0.046 | 4 | 0.048 | 0.046 | 4 | 0.72035275 |
| 4 | -0.027 | 0.012 | 4 | 0.018 | 0.026 | 4 | 0.017 | 0.016 | 4 | 0.720584822 |
| 4 | -0.008 | 0.023 | 4 | -0.015 | 0.029 | 4 | 0.023 | 0.015 | 4 | 0.720816895 |
| 4 | 0.062 | 0.046 | 4 | 0.014 | 0.046 | 4 | -0.011 | 0.041 | 4 | 0.721048967 |
| 3 | 0.054 | 0.073 | 3 | -0.007 | 0.143 | 3 | -0.005 | 0.140 | 3 | 0.72128104 |
| 4 | 0.011 | 0.020 | 4 | 0.008 | 0.041 | 4 | 0.007 | 0.030 | 4 | 0.721513112 |
| 4 | -0.009 | 0.012 | 4 | 0.003 | 0.027 | 4 | 0.012 | 0.010 | 4 | 0.721745184 |
| 4 | 0.002 | 0.031 | 4 | -0.041 | 0.060 | 4 | 0.066 | 0.085 | 4 | 0.721977257 |
| 2 | -0.007 | 0.010 | 2 | 0.047 | 0.042 | 2 | -0.002 | 0.033 | 2 | 0.722209329 |
| 4 | 0.032 | 0.031 | 4 | 0.007 | 0.028 | 4 | -0.041 | 0.019 | 4 | 0.722441402 |
| 3 | 0.057 | 0.019 | 3 | -0.008 | 0.054 | 3 | 0.002 | 0.030 | 3 | 0.722673474 |
| 4 | 0.029 | 0.021 | 4 | 0.016 | 0.029 | 4 | -0.050 | 0.017 | 4 | 0.722905547 |
| 4 | 0.002 | 0.027 | 4 | 0.000 | 0.038 | 4 | 0.014 | 0.039 | 4 | 0.723137619 |
| 4 | 0.025 | 0.015 | 4 | -0.008 | 0.031 | 4 | 0.029 | 0.014 | 4 | 0.723369691 |
| 4 | -0.008 | 0.011 | 4 | 0.011 | 0.060 | 4 | 0.032 | 0.067 | 4 | 0.723601764 |
| 4 | 0.007 | 0.018 | 4 | 0.026 | 0.032 | 4 | -0.007 | 0.031 | 4 | 0.723833836 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 2 | 0.009 | 0.008 | 2 | 0.016 | 0.049 | 2 | 0.066 | 0.037 | 2 | 0.724065909 |
| 3 | -0.015 | 0.038 | 3 | 0.004 | 0.077 | 3 | 0.033 | 0.040 | 3 | 0.724297981 |
| 3 | -0.016 | 0.006 | 4 | -0.065 | 0.037 | 4 | 0.106 | 0.149 | 4 | 0.724530053 |
| 2 | -0.009 | 0.008 | 2 | -0.010 | 0.031 | 2 | 0.010 | 0.016 | 2 | 0.724762126 |
| 4 | 0.050 | 0.025 | 4 | -0.034 | 0.034 | 4 | 0.006 | 0.017 | 4 | 0.724994198 |
| 4 | -0.002 | 0.036 | 4 | 0.032 | 0.030 | 4 | 0.005 | 0.036 | 4 | 0.725226271 |
| 2 | -0.005 | 0.020 | 4 | -0.006 | 0.041 | 4 | -0.015 | 0.070 | 4 | 0.725458343 |
| 4 | 0.001 | 0.034 | 4 | -0.003 | 0.047 | 4 | 0.012 | 0.041 | 4 | 0.725690415 |
| 4 | 0.006 | 0.049 | 4 | 0.010 | 0.028 | 4 | 0.050 | 0.018 | 4 | 0.725922488 |
| 3 | -0.008 | 0.033 | 4 | -0.017 | 0.052 | 4 | 0.067 | 0.027 | 4 | 0.72615456 |
| 2 | 0.016 | 0.025 | 2 | 0.014 | 0.044 | 2 | 0.012 | 0.044 | 2 | 0.726386633 |
| 4 | -0.019 | 0.023 | 4 | 0.027 | 0.024 | 4 | 0.032 | 0.016 | 4 | 0.726618705 |
| 4 | 0.020 | 0.036 | 4 | 0.021 | 0.036 | 4 | -0.018 | 0.024 | 4 | 0.726850777 |
| 4 | -0.025 | 0.023 | 4 | 0.011 | 0.038 | 4 | -0.005 | 0.024 | 4 | 0.72708285 |
| 4 | -0.014 | 0.009 | 4 | 0.055 | 0.023 | 4 | -0.107 | 0.162 | 4 | 0.727314922 |
| 2 | -0.002 | 0.038 | 3 | 0.005 | 0.095 | 3 | -0.022 | 0.080 | 3 | 0.727546995 |
| 4 | 0.003 | 0.014 | 4 | -0.009 | 0.026 | 4 | 0.001 | 0.009 | 4 | 0.727779067 |
| 4 | 0.014 | 0.033 | 4 | 0.045 | 0.064 | 4 | -0.016 | 0.031 | 4 | 0.728011139 |
| 4 | -0.021 | 0.017 | 4 | 0.014 | 0.037 | 4 | -0.007 | 0.023 | 4 | 0.728243212 |
| 4 | 0.031 | 0.025 | 4 | -0.027 | 0.054 | 4 | -0.001 | 0.027 | 4 | 0.728475284 |
| 3 | -0.012 | 0.011 | 4 | 0.095 | 0.036 | 4 | -0.007 | 0.028 | 4 | 0.728707357 |
| 4 | -0.005 | 0.012 | 4 | 0.006 | 0.039 | 4 | 0.011 | 0.023 | 4 | 0.728939429 |
| 4 | 0.076 | 0.034 | 4 | 0.090 | 0.054 | 4 | 0.093 | 0.026 | 4 | 0.729171502 |
| 4 | 0.002 | 0.047 | 4 | -0.031 | 0.028 | 4 | 0.006 | 0.044 | 4 | 0.729403574 |
| 4 | 0.018 | 0.020 | 4 | 0.031 | 0.043 | 4 | 0.024 | 0.023 | 4 | 0.729635646 |
| 4 | 0.017 | 0.029 | 4 | -0.012 | 0.038 | 4 | 0.018 | 0.025 | 4 | 0.729867719 |
| 3 | -0.003 | 0.034 | 4 | -0.024 | 0.023 | 4 | 0.065 | 0.046 | 4 | 0.730099791 |
| 4 | -0.029 | 0.018 | 4 | 0.014 | 0.056 | 4 | 0.019 | 0.036 | 4 | 0.730331864 |
| 4 | 0.020 | 0.043 | 4 | 0.020 | 0.108 | 4 | 0.014 | 0.076 | 4 | 0.730563936 |
| 4 | 0.001 | 0.025 | 4 | 0.020 | 0.022 | 4 | -0.005 | 0.026 | 4 | 0.730796008 |
| 4 | 0.054 | 0.014 | 4 | 0.011 | 0.034 | 4 | -0.009 | 0.031 | 4 | 0.731028081 |
| 4 | -0.001 | 0.033 | 4 | -0.015 | 0.036 | 4 | 0.007 | 0.027 | 4 | 0.731260153 |
| 4 | 0.005 | 0.026 | 4 | 0.029 | 0.053 | 4 | 0.016 | 0.030 | 4 | 0.731492226 |
| 4 | 0.014 | 0.047 | 4 | 0.036 | 0.057 | 4 | 0.003 | 0.023 | 4 | 0.731724298 |
| 4 | 0.044 | 0.023 | 4 | -0.016 | 0.048 | 4 | 0.034 | 0.034 | 4 | 0.73195637 |
| 3 | 0.000 | 0.048 | 3 | 0.092 | 0.011 | 3 | -0.024 | 0.161 | 3 | 0.732188443 |
| 4 | 0.024 | 0.018 | 4 | 0.025 | 0.027 | 4 | 0.022 | 0.012 | 4 | 0.732420515 |
| 3 | 0.028 | 0.025 | 4 | 0.041 | 0.024 | 4 | 0.014 | 0.044 | 4 | 0.732652588 |
| 3 | 0.063 | 0.059 | 4 | -0.003 | 0.025 | 4 | -0.037 | 0.047 | 4 | 0.73288466 |
| 4 | 0.051 | 0.018 | 4 | 0.020 | 0.035 | 4 | -0.008 | 0.025 | 4 | 0.733116732 |
| 4 | 0.033 | 0.025 | 4 | 0.012 | 0.028 | 4 | 0.028 | 0.038 | 4 | 0.733348805 |
| 3 | 0.017 | 0.005 | 3 | 0.022 | 0.020 | 3 | 0.035 | 0.015 | 3 | 0.733580877 |
| 2 | 0.013 | 0.018 | 3 | 0.018 | 0.036 | 3 | -0.005 | 0.018 | 3 | 0.73381295 |
| 4 | 0.035 | 0.046 | 4 | 0.005 | 0.061 | 4 | 0.015 | 0.031 | 4 | 0.734045022 |
| 4 | -0.007 | 0.029 | 4 | -0.001 | 0.019 | 4 | 0.016 | 0.019 | 4 | 0.734277094 |
| 4 | -0.027 | 0.027 | 4 | -0.002 | 0.029 | 4 | 0.007 | 0.008 | 4 | 0.734509167 |
| 4 | 0.006 | 0.020 | 4 | 0.014 | 0.038 | 4 | 0.011 | 0.020 | 4 | 0.734741239 |
| 2 | 0.009 | 0.019 | 4 | -0.011 | 0.048 | 4 | 0.017 | 0.017 | 4 | 0.734973312 |
| 3 | 0.039 | 0.054 | 4 | -0.016 | 0.064 | 4 | -0.003 | 0.064 | 4 | 0.735205384 |
| 4 | 0.029 | 0.009 | 4 | 0.030 | 0.035 | 4 | 0.023 | 0.024 | 4 | 0.735437456 |
| 4 | 0.046 | 0.012 | 4 | 0.002 | 0.049 | 4 | -0.003 | 0.024 | 4 | 0.735669529 |
| 4 | 0.033 | 0.041 | 4 | 0.052 | 0.027 | 4 | 0.014 | 0.008 | 4 | 0.735901601 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 4 | 0.023 | 0.031 | 4 | -0.011 | 0.067 | 4 | 0.041 | 0.037 | 4 | 0.736133674 |
| 4 | -0.003 | 0.030 | 4 | 0.057 | 0.039 | 4 | 0.021 | 0.031 | 4 | 0.736365746 |
| 4 | 0.028 | 0.011 | 4 | -0.012 | 0.043 | 4 | 0.055 | 0.025 | 4 | 0.736597819 |
| | -0.126 | 0.010 | 2 | -0.041 | 0.024 | 2 | 0.204 | 0.054 | 2 | 0.736829891 |
| | 0.008 | 0.007 | 2 | 0.013 | 0.021 | 2 | 0.016 | 0.007 | 2 | 0.737061963 |
| 4 | 0.018 | 0.036 | 4 | 0.033 | 0.037 | 4 | 0.034 | 0.007 | 4 | 0.737294036 |
| 4 | 0.049 | 0.017 | 4 | -0.020 | 0.029 | 4 | 0.010 | 0.018 | 4 | 0.737526108 |
| 4 | -0.012 | 0.010 | 4 | -0.011 | 0.057 | 4 | 0.012 | 0.029 | 4 | 0.737758181 |
| 4 | 0.006 | 0.008 | 4 | -0.014 | 0.061 | 4 | 0.032 | 0.010 | 4 | 0.737990253 |
| 4 | -0.007 | 0.030 | 4 | -0.003 | 0.059 | 4 | 0.013 | 0.022 | 4 | 0.738222325 |
| 4 | 0.037 | 0.017 | 4 | 0.018 | 0.032 | 4 | 0.024 | 0.037 | 4 | 0.738454398 |
| 4 | 0.025 | 0.046 | 4 | 0.037 | 0.062 | 4 | 0.045 | 0.034 | 4 | 0.73868647 |
| 4 | 0.030 | 0.023 | 4 | 0.036 | 0.034 | 4 | 0.017 | 0.028 | 4 | 0.738918543 |
| 4 | -0.014 | 0.017 | 4 | 0.051 | 0.033 | 4 | 0.016 | 0.036 | 4 | 0.739150615 |
| 4 | 0.006 | 0.047 | 4 | 0.013 | 0.046 | 4 | 0.013 | 0.044 | 4 | 0.739382687 |
| 4 | 0.020 | 0.020 | 4 | 0.039 | 0.040 | 4 | -0.026 | 0.121 | 4 | 0.73961476 |
| 4 | 0.052 | 0.038 | 4 | -0.038 | 0.035 | 4 | 0.082 | 0.013 | 4 | 0.739846832 |
| 4 | 0.017 | 0.021 | 4 | 0.013 | 0.060 | 4 | 0.029 | 0.021 | 4 | 0.740078905 |
| 4 | 0.030 | 0.023 | 4 | -0.005 | 0.085 | 4 | -0.046 | 0.065 | 4 | 0.740310977 |
| 4 | 0.021 | 0.036 | 4 | 0.021 | 0.045 | 4 | 0.041 | 0.035 | 4 | 0.740543049 |
| 4 | 0.003 | 0.020 | 4 | -0.003 | 0.028 | 4 | 0.044 | 0.017 | 4 | 0.740775122 |
| 4 | 0.089 | 0.039 | 4 | 0.027 | 0.043 | 4 | 0.035 | 0.043 | 4 | 0.741007194 |
| 2 | 0.044 | 0.002 | 2 | 0.021 | 0.042 | 2 | -0.003 | 0.014 | 2 | 0.741239267 |
| 4 | -0.029 | 0.010 | 4 | 0.064 | 0.024 | 4 | 0.005 | 0.018 | 4 | 0.741471339 |
| 4 | -0.004 | 0.018 | 4 | -0.020 | 0.021 | 4 | 0.001 | 0.010 | 4 | 0.741703411 |
| 4 | -0.010 | 0.048 | 4 | 0.020 | 0.012 | 4 | 0.040 | 0.013 | 4 | 0.741935484 |
| 4 | 0.049 | 0.028 | 4 | 0.009 | 0.053 | 4 | -0.007 | 0.029 | 4 | 0.742167556 |
| 4 | 0.073 | 0.024 | 4 | 0.001 | 0.051 | 4 | 0.027 | 0.025 | 4 | 0.742399629 |
| 4 | 0.021 | 0.032 | 4 | 0.009 | 0.030 | 4 | 0.024 | 0.026 | 4 | 0.742631701 |
| 4 | -0.006 | 0.015 | 4 | 0.021 | 0.032 | 4 | 0.001 | 0.017 | 4 | 0.742863773 |
| 4 | 0.002 | 0.013 | 4 | 0.012 | 0.039 | 4 | 0.026 | 0.023 | 4 | 0.743095846 |
| 4 | -0.002 | 0.021 | 4 | 0.051 | 0.015 | 4 | -0.065 | 0.066 | 4 | 0.743327918 |
| 3 | 0.074 | 0.043 | 3 | -0.010 | 0.015 | 3 | -0.058 | 0.099 | 3 | 0.743559991 |
| 4 | 0.009 | 0.006 | 4 | 0.019 | 0.036 | 4 | 0.018 | 0.014 | 4 | 0.743792063 |
| 4 | 0.003 | 0.025 | 4 | 0.029 | 0.085 | 4 | -0.006 | 0.041 | 4 | 0.744024136 |
| 4 | -0.003 | 0.041 | 4 | 0.012 | 0.035 | 4 | 0.028 | 0.020 | 4 | 0.744256208 |
| 4 | 0.000 | 0.029 | 4 | 0.000 | 0.040 | 4 | 0.014 | 0.009 | 4 | 0.74448828 |
| 4 | 0.021 | 0.031 | 4 | 0.026 | 0.063 | 4 | 0.003 | 0.043 | 4 | 0.744720353 |
| 4 | 0.010 | 0.025 | 4 | 0.024 | 0.074 | 4 | 0.005 | 0.052 | 4 | 0.744952425 |
| 4 | 0.005 | 0.019 | 4 | 0.034 | 0.017 | 4 | 0.008 | 0.011 | 4 | 0.745184498 |
| 4 | 0.020 | 0.009 | 4 | 0.035 | 0.014 | 4 | -0.020 | 0.029 | 4 | 0.74541657 |
| 4 | 0.050 | 0.021 | 4 | -0.038 | 0.054 | 4 | -0.009 | 0.016 | 4 | 0.745648642 |
| 2 | -0.002 | 0.033 | 2 | 0.019 | 0.004 | 2 | 0.015 | 0.013 | 2 | 0.745880715 |
| 4 | 0.048 | 0.030 | 4 | 0.095 | 0.030 | 4 | -0.056 | 0.149 | 4 | 0.746112787 |
| 4 | 0.014 | 0.016 | 4 | 0.050 | 0.032 | 4 | -0.008 | 0.037 | 4 | 0.74634486 |
| 4 | 0.027 | 0.027 | 4 | 0.032 | 0.032 | 4 | 0.034 | 0.031 | 4 | 0.746576932 |
| 4 | 0.029 | 0.019 | 4 | 0.047 | 0.026 | 4 | 0.037 | 0.023 | 4 | 0.746809004 |
| 4 | 0.020 | 0.024 | 4 | -0.014 | 0.029 | 4 | 0.107 | 0.041 | 4 | 0.747041077 |
| 4 | 0.065 | 0.029 | 4 | 0.031 | 0.063 | 4 | 0.014 | 0.032 | 4 | 0.747273149 |
| 4 | 0.007 | 0.023 | 4 | 0.028 | 0.024 | 4 | 0.030 | 0.011 | 4 | 0.747505222 |
| 4 | 0.064 | 0.107 | 4 | 0.035 | 0.115 | 4 | 0.058 | 0.097 | 4 | 0.747737294 |
| 4 | 0.017 | 0.056 | 4 | 0.025 | 0.035 | 4 | 0.025 | 0.032 | 4 | 0.747969366 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 4 | -0.021 | 0.020 | 4 | -0.034 | 0.036 | 4 | 0.016 | 0.037 | 4 | 0.748201439 |
| 4 | 0.071 | 0.023 | 4 | 0.022 | 0.016 | 4 | 0.005 | 0.023 | 4 | 0.748433511 |
| 4 | 0.016 | 0.061 | 4 | -0.031 | 0.077 | 4 | 0.071 | 0.060 | 4 | 0.748665584 |
| 3 | 0.037 | 0.038 | 3 | 0.027 | 0.048 | 3 | 0.036 | 0.043 | 3 | 0.748897656 |
| 4 | 0.022 | 0.037 | 4 | 0.020 | 0.046 | 4 | 0.022 | 0.047 | 4 | 0.749129728 |
| 3 | 0.027 | 0.010 | 3 | -0.002 | 0.045 | 3 | 0.044 | 0.032 | 3 | 0.749361801 |
| 3 | 0.030 | 0.024 | 4 | 0.032 | 0.061 | 4 | 0.012 | 0.018 | 4 | 0.749593873 |
| 4 | 0.017 | 0.049 | 4 | -0.007 | 0.078 | 4 | 0.006 | 0.049 | 4 | 0.749825946 |
| 4 | 0.066 | 0.043 | 4 | -0.039 | 0.036 | 4 | 0.022 | 0.039 | 4 | 0.750058018 |
| 3 | -0.018 | 0.042 | 4 | -0.068 | 0.044 | 4 | 0.106 | 0.116 | 4 | 0.750290091 |
| 4 | 0.004 | 0.019 | 4 | -0.005 | 0.023 | 4 | 0.018 | 0.007 | 4 | 0.750522163 |
| 4 | 0.007 | 0.024 | 4 | -0.008 | 0.010 | 4 | 0.024 | 0.034 | 4 | 0.750754235 |
| 4 | 0.020 | 0.023 | 4 | 0.042 | 0.055 | 4 | 0.017 | 0.014 | 4 | 0.750986308 |
| 3 | 0.013 | 0.015 | 4 | 0.001 | 0.037 | 4 | 0.016 | 0.012 | 4 | 0.75121838 |
| 2 | -0.011 | 0.030 | 2 | -0.024 | 0.059 | 2 | 0.007 | 0.016 | 2 | 0.751450453 |
| 4 | -0.034 | 0.021 | 4 | 0.067 | 0.054 | 4 | 0.008 | 0.043 | 4 | 0.751682525 |
| 4 | 0.072 | 0.031 | 4 | 0.046 | 0.037 | 4 | 0.103 | 0.020 | 4 | 0.751914597 |
| 4 | 0.033 | 0.022 | 4 | -0.018 | 0.055 | 4 | 0.018 | 0.031 | 4 | 0.75214667 |
| 2 | 0.012 | 0.021 | 3 | -0.001 | 0.030 | 3 | 0.017 | 0.025 | 3 | 0.752378742 |
| 4 | 0.037 | 0.023 | 4 | 0.040 | 0.021 | 4 | 0.060 | 0.010 | 4 | 0.752610815 |
| 4 | 0.034 | 0.036 | 4 | -0.003 | 0.044 | 4 | 0.037 | 0.017 | 4 | 0.752842887 |
| 4 | 0.028 | 0.043 | 4 | 0.016 | 0.067 | 4 | -0.023 | 0.044 | 4 | 0.753074959 |
| 4 | 0.047 | 0.018 | 4 | -0.018 | 0.059 | 4 | 0.065 | 0.047 | 4 | 0.753307032 |
| 4 | 0.053 | 0.017 | 4 | 0.053 | 0.027 | 4 | 0.053 | 0.020 | 4 | 0.753539104 |
| 4 | 0.029 | 0.015 | 4 | 0.050 | 0.038 | 4 | -0.108 | 0.208 | 4 | 0.753771177 |
| 4 | 0.011 | 0.032 | 4 | 0.066 | 0.017 | 4 | 0.044 | 0.013 | 4 | 0.754003249 |
| 4 | 0.008 | 0.020 | 4 | -0.003 | 0.024 | 4 | 0.018 | 0.011 | 4 | 0.754235321 |
| 2 | -0.007 | 0.008 | 2 | 0.022 | 0.034 | 2 | 0.009 | 0.012 | 2 | 0.754467394 |
| 4 | 0.028 | 0.012 | 4 | -0.010 | 0.072 | 4 | 0.023 | 0.030 | 4 | 0.754699466 |
| | -0.009 | 0.014 | 2 | -0.019 | 0.025 | 2 | 0.073 | 0.034 | 2 | 0.754931539 |
| 4 | 0.014 | 0.019 | 4 | 0.036 | 0.044 | 4 | 0.015 | 0.026 | 4 | 0.755163611 |
| 4 | 0.037 | 0.009 | 4 | 0.028 | 0.035 | 4 | 0.015 | 0.018 | 4 | 0.755395683 |
| 2 | 0.051 | 0.010 | 2 | 0.013 | 0.021 | 2 | 0.015 | 0.023 | 2 | 0.755627756 |
| 4 | -0.010 | 0.010 | 4 | -0.008 | 0.033 | 4 | 0.021 | 0.021 | 4 | 0.755859828 |
| 4 | 0.030 | 0.012 | 4 | -0.007 | 0.050 | 4 | 0.009 | 0.024 | 4 | 0.756091901 |
| 4 | -0.002 | 0.023 | 4 | 0.002 | 0.039 | 4 | 0.064 | 0.017 | 4 | 0.756323973 |
| 4 | -0.043 | 0.064 | 4 | 0.026 | 0.046 | 4 | 0.074 | 0.014 | 4 | 0.756556045 |
| 2 | 0.044 | 0.017 | 2 | -0.023 | 0.066 | 2 | 0.027 | 0.035 | 2 | 0.756788118 |
| 4 | 0.064 | 0.017 | 4 | 0.051 | 0.046 | 4 | 0.043 | 0.019 | 4 | 0.75702019 |
| 3 | 0.022 | 0.037 | 4 | 0.013 | 0.060 | 4 | 0.040 | 0.035 | 4 | 0.757252263 |
| 4 | 0.018 | 0.011 | 4 | 0.020 | 0.037 | 4 | 0.018 | 0.020 | 4 | 0.757484335 |
| 4 | 0.042 | 0.024 | 4 | 0.032 | 0.044 | 4 | 0.017 | 0.024 | 4 | 0.757716408 |
| 3 | 0.054 | 0.019 | 3 | -0.036 | 0.060 | 3 | 0.028 | 0.010 | 3 | 0.75794848 |
| 4 | 0.016 | 0.030 | 4 | 0.000 | 0.058 | 4 | -0.012 | 0.020 | 4 | 0.758180552 |
| 4 | 0.075 | 0.031 | 4 | 0.031 | 0.034 | 4 | -0.007 | 0.016 | 4 | 0.758412625 |
| 4 | 0.037 | 0.023 | 4 | 0.019 | 0.042 | 4 | 0.038 | 0.011 | 4 | 0.758644697 |
| 4 | 0.024 | 0.012 | 4 | 0.017 | 0.058 | 4 | 0.044 | 0.017 | 4 | 0.75887677 |
| 3 | 0.041 | 0.001 | 3 | 0.005 | 0.017 | 3 | 0.034 | 0.024 | 3 | 0.759108842 |
| 4 | -0.007 | 0.036 | 4 | -0.017 | 0.037 | 4 | -0.010 | 0.015 | 4 | 0.759340914 |
| 2 | 0.003 | 0.019 | 2 | -0.004 | 0.029 | 2 | 0.027 | 0.020 | 2 | 0.759572987 |
| 4 | 0.044 | 0.033 | 4 | 0.015 | 0.043 | 4 | -0.017 | 0.054 | 4 | 0.759805059 |
| 4 | 0.041 | 0.025 | 4 | 0.002 | 0.043 | 4 | 0.015 | 0.028 | 4 | 0.760037132 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 4 | -0.008 | 0.045 | 4 | -0.055 | 0.072 | 4 | 0.016 | 0.041 | 4 | 0.760269204 |
| 4 | -0.090 | 0.019 | 4 | -0.002 | 0.058 | 4 | 0.121 | 0.012 | 4 | 0.760501276 |
| 4 | 0.023 | 0.037 | 4 | 0.026 | 0.027 | 4 | 0.023 | 0.027 | 4 | 0.760733349 |
| 4 | 0.023 | 0.048 | 4 | -0.012 | 0.059 | 4 | 0.024 | 0.046 | 4 | 0.760965421 |
| 4 | 0.015 | 0.028 | 4 | -0.004 | 0.041 | 4 | 0.039 | 0.009 | 4 | 0.761197494 |
| 4 | 0.026 | 0.015 | 4 | 0.023 | 0.022 | 4 | 0.036 | 0.007 | 4 | 0.761429566 |
| 4 | -0.009 | 0.025 | 4 | 0.013 | 0.040 | 4 | 0.022 | 0.024 | 4 | 0.761661638 |
| 2 | -0.045 | 0.037 | 4 | 0.004 | 0.025 | 4 | 0.018 | 0.016 | 4 | 0.761893711 |
| 4 | 0.028 | 0.049 | 4 | 0.026 | 0.036 | 4 | 0.008 | 0.016 | 4 | 0.762125783 |
| 4 | 0.017 | 0.012 | 4 | 0.002 | 0.029 | 4 | 0.039 | 0.013 | 4 | 0.762357856 |
| 4 | 0.007 | 0.016 | 4 | 0.048 | 0.054 | 4 | 0.010 | 0.043 | 4 | 0.762589928 |
| 4 | -0.034 | 0.033 | 4 | 0.010 | 0.032 | 4 | 0.021 | 0.020 | 4 | 0.762822 |
| 4 | 0.002 | 0.026 | 4 | 0.029 | 0.032 | 4 | 0.043 | 0.015 | 4 | 0.763054073 |
| 4 | 0.002 | 0.015 | 4 | 0.018 | 0.065 | 4 | 0.019 | 0.042 | 4 | 0.763286145 |
| 3 | 0.027 | 0.011 | 3 | 0.036 | 0.005 | 3 | 0.018 | 0.042 | 3 | 0.763518218 |
| 4 | 0.003 | 0.048 | 4 | 0.044 | 0.027 | 4 | 0.018 | 0.039 | 4 | 0.76375029 |
| 4 | -0.039 | 0.025 | 4 | 0.035 | 0.024 | 4 | 0.071 | 0.021 | 4 | 0.763982362 |
| 3 | 0.015 | 0.021 | 3 | -0.005 | 0.049 | 3 | -0.045 | 0.043 | 3 | 0.764214435 |
| 4 | 0.050 | 0.023 | 4 | 0.009 | 0.051 | 4 | 0.021 | 0.028 | 4 | 0.764446507 |
| 3 | -0.008 | 0.045 | 3 | 0.045 | 0.056 | 3 | 0.022 | 0.050 | 3 | 0.76467858 |
| 4 | -0.022 | 0.012 | 4 | 0.009 | 0.040 | 4 | 0.035 | 0.032 | 4 | 0.764910652 |
| 4 | 0.001 | 0.056 | 4 | 0.017 | 0.039 | 4 | 0.041 | 0.029 | 4 | 0.765142725 |
| 2 | 0.016 | 0.023 | 2 | -0.040 | 0.012 | 2 | 0.006 | 0.020 | 2 | 0.765374797 |
| 4 | 0.014 | 0.012 | 4 | 0.025 | 0.025 | 4 | 0.034 | 0.011 | 4 | 0.765606869 |
| 4 | 0.001 | 0.015 | 4 | -0.008 | 0.024 | 4 | 0.076 | 0.010 | 4 | 0.765838942 |
| 4 | 0.031 | 0.019 | 4 | 0.019 | 0.023 | 4 | 0.013 | 0.020 | 4 | 0.766071014 |
| 4 | -0.001 | 0.022 | 4 | 0.016 | 0.054 | 4 | 0.028 | 0.024 | 4 | 0.766303087 |
| 3 | 0.057 | 0.048 | 3 | 0.006 | 0.013 | 3 | 0.068 | 0.036 | 3 | 0.766535159 |
| 4 | 0.018 | 0.027 | 4 | 0.037 | 0.126 | 4 | 0.040 | 0.017 | 4 | 0.766767231 |
| 2 | -0.008 | 0.031 | 3 | 0.014 | 0.025 | 3 | 0.028 | 0.026 | 3 | 0.766999304 |
| 4 | -0.010 | 0.033 | 4 | 0.012 | 0.042 | 4 | 0.019 | 0.011 | 4 | 0.767231376 |
| 3 | 0.024 | 0.015 | 4 | 0.003 | 0.034 | 4 | -0.025 | 0.026 | 4 | 0.767463449 |
| 4 | 0.046 | 0.018 | 4 | -0.014 | 0.033 | 4 | 0.016 | 0.023 | 4 | 0.767695521 |
| 4 | -0.025 | 0.028 | 4 | -0.001 | 0.053 | 4 | 0.039 | 0.020 | 4 | 0.767927593 |
| 4 | -0.006 | 0.020 | 4 | -0.004 | 0.051 | 4 | 0.011 | 0.015 | 4 | 0.768159666 |
| 4 | 0.006 | 0.023 | 4 | 0.069 | 0.029 | 4 | 0.036 | 0.017 | 4 | 0.768391738 |
| 3 | 0.035 | 0.029 | 4 | -0.031 | 0.026 | 4 | 0.000 | 0.027 | 4 | 0.768623811 |
| 4 | 0.023 | 0.025 | 4 | 0.009 | 0.054 | 4 | 0.022 | 0.016 | 4 | 0.768855883 |
| 4 | 0.008 | 0.024 | 4 | 0.070 | 0.074 | 4 | -0.093 | 0.032 | 4 | 0.769087955 |
| 4 | 0.008 | 0.021 | 4 | 0.016 | 0.050 | 4 | 0.035 | 0.042 | 4 | 0.769320028 |
| 4 | 0.035 | 0.034 | 4 | -0.020 | 0.051 | 4 | 0.002 | 0.056 | 4 | 0.7695521 |
| 4 | 0.012 | 0.026 | 4 | -0.011 | 0.027 | 4 | 0.024 | 0.038 | 4 | 0.769784173 |
| 4 | 0.037 | 0.018 | 4 | 0.002 | 0.044 | 4 | 0.027 | 0.026 | 4 | 0.770016245 |
| 4 | 0.044 | 0.016 | 4 | 0.026 | 0.022 | 4 | 0.023 | 0.021 | 4 | 0.770248317 |
| 4 | 0.038 | 0.018 | 4 | -0.015 | 0.032 | 4 | -0.009 | 0.041 | 4 | 0.77048039 |
| 4 | 0.007 | 0.050 | 4 | 0.000 | 0.036 | 4 | -0.008 | 0.023 | 4 | 0.770712462 |
| 4 | 0.013 | 0.044 | 4 | 0.006 | 0.053 | 4 | 0.063 | 0.073 | 4 | 0.770944535 |
| 4 | 0.011 | 0.061 | 4 | 0.029 | 0.047 | 4 | 0.038 | 0.047 | 4 | 0.771176607 |
| 4 | 0.038 | 0.016 | 4 | 0.051 | 0.026 | 4 | 0.033 | 0.023 | 4 | 0.77140868 |
| 4 | -0.003 | 0.020 | 4 | 0.020 | 0.029 | 4 | 0.009 | 0.055 | 4 | 0.771640752 |
| 4 | 0.004 | 0.020 | 4 | 0.026 | 0.040 | 4 | 0.031 | 0.012 | 4 | 0.771872824 |
| 3 | 0.037 | 0.018 | 4 | 0.003 | 0.030 | 4 | -0.008 | 0.030 | 4 | 0.772104897 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 4 | 0.033 | 0.031 | 4 | 0.012 | 0.058 | 4 | 0.016 | 0.020 | 4 | 0.772336969 |
| 2 | 0.075 | 0.052 | 3 | 0.011 | 0.031 | 3 | -0.006 | 0.027 | 3 | 0.772569042 |
| 2 | 0.027 | 0.017 | 2 | 0.004 | 0.008 | 2 | 0.016 | 0.006 | 2 | 0.772801114 |
| 4 | 0.057 | 0.019 | 4 | 0.008 | 0.046 | 4 | -0.015 | 0.039 | 4 | 0.773033186 |
| 4 | 0.007 | 0.028 | 4 | -0.011 | 0.025 | 4 | 0.009 | 0.031 | 4 | 0.773265259 |
| 3 | 0.021 | 0.028 | 4 | 0.022 | 0.044 | 4 | 0.032 | 0.055 | 4 | 0.773497331 |
| 4 | 0.021 | 0.028 | 4 | 0.008 | 0.040 | 4 | 0.031 | 0.041 | 4 | 0.773729404 |
| 4 | 0.021 | 0.016 | 4 | 0.027 | 0.021 | 4 | -0.007 | 0.085 | 4 | 0.773961476 |
| 4 | 0.004 | 0.038 | 4 | 0.033 | 0.056 | 4 | 0.018 | 0.022 | 4 | 0.774193548 |
| 3 | 0.046 | 0.050 | 3 | 0.035 | 0.042 | 3 | 0.038 | 0.030 | 3 | 0.774425621 |
| 2 | 0.001 | 0.005 | 2 | -0.028 | 0.024 | 2 | 0.012 | 0.019 | 2 | 0.774657693 |
| 4 | 0.011 | 0.012 | 4 | -0.002 | 0.035 | 4 | 0.029 | 0.019 | 4 | 0.774889766 |
| 2 | -0.021 | 0.094 | 2 | 0.009 | 0.032 | 2 | -0.010 | 0.047 | 2 | 0.775121838 |
| 3 | 0.009 | 0.032 | 3 | 0.069 | 0.059 | 3 | -0.019 | 0.067 | 3 | 0.77535391 |
| 4 | 0.017 | 0.028 | 4 | 0.001 | 0.033 | 4 | 0.008 | 0.002 | 4 | 0.775585983 |
| 4 | -0.016 | 0.031 | 4 | 0.133 | 0.049 | 4 | -0.015 | 0.024 | 4 | 0.775818055 |
| 4 | 0.004 | 0.059 | 4 | 0.006 | 0.017 | 4 | 0.033 | 0.038 | 4 | 0.776050128 |
| 4 | 0.010 | 0.026 | 4 | 0.032 | 0.022 | 4 | -0.016 | 0.053 | 4 | 0.7762822 |
| 2 | -0.039 | 0.017 | 3 | 0.012 | 0.053 | 3 | 0.068 | 0.020 | 3 | 0.776514272 |
| 4 | 0.021 | 0.049 | 4 | 0.023 | 0.025 | 4 | 0.039 | 0.016 | 4 | 0.776746345 |
| 4 | 0.008 | 0.013 | 4 | 0.015 | 0.034 | 4 | 0.045 | 0.011 | 4 | 0.776978417 |
| 3 | -0.006 | 0.006 | 3 | 0.045 | 0.029 | 3 | 0.004 | 0.009 | 3 | 0.77721049 |
| 4 | 0.004 | 0.029 | 4 | 0.017 | 0.024 | 4 | 0.042 | 0.015 | 4 | 0.777442562 |
| 4 | 0.047 | 0.037 | 4 | 0.035 | 0.028 | 4 | 0.023 | 0.041 | 4 | 0.777674634 |
| 4 | 0.029 | 0.019 | 4 | 0.034 | 0.033 | 4 | -0.022 | 0.033 | 4 | 0.777906707 |
| 4 | 0.038 | 0.022 | 4 | 0.045 | 0.035 | 4 | -0.073 | 0.198 | 4 | 0.778138779 |
| 3 | -0.030 | 0.028 | 3 | 0.043 | 0.012 | 3 | 0.024 | 0.013 | 3 | 0.778370852 |
| 2 | -0.070 | 0.044 | 4 | 0.055 | 0.126 | 4 | 0.074 | 0.018 | 4 | 0.778602924 |
| 4 | 0.015 | 0.020 | 4 | 0.034 | 0.044 | 4 | 0.027 | 0.030 | 4 | 0.778834997 |
| 2 | 0.031 | 0.023 | 2 | 0.000 | 0.022 | 2 | 0.054 | 0.014 | 2 | 0.779067069 |
| 4 | 0.008 | 0.042 | 4 | -0.029 | 0.036 | 4 | 0.019 | 0.032 | 4 | 0.779299141 |
| 2 | 0.004 | 0.004 | 3 | 0.052 | 0.034 | 3 | 0.010 | 0.047 | 3 | 0.779531214 |
| 4 | 0.052 | 0.018 | 4 | 0.040 | 0.019 | 4 | 0.016 | 0.018 | 4 | 0.779763286 |
| 2 | -0.112 | 0.030 | 2 | 0.018 | 0.001 | 2 | 0.074 | 0.020 | 2 | 0.779995359 |
| 4 | 0.111 | 0.023 | 4 | 0.053 | 0.032 | 4 | -0.020 | 0.017 | 4 | 0.780227431 |
| 4 | 0.034 | 0.024 | 4 | -0.034 | 0.024 | 4 | 0.023 | 0.013 | 4 | 0.780459503 |
| 4 | 0.037 | 0.019 | 4 | 0.041 | 0.029 | 4 | 0.052 | 0.024 | 4 | 0.780691576 |
| 4 | 0.037 | 0.011 | 4 | -0.019 | 0.009 | 4 | 0.007 | 0.031 | 4 | 0.780923648 |
| 2 | -0.028 | 0.055 | 3 | 0.098 | 0.068 | 3 | 0.037 | 0.034 | 3 | 0.781155721 |
| 4 | -0.008 | 0.039 | 4 | 0.007 | 0.050 | 4 | 0.032 | 0.017 | 4 | 0.781387793 |
| 4 | 0.021 | 0.063 | 4 | -0.015 | 0.032 | 4 | 0.001 | 0.042 | 4 | 0.781619865 |
| 4 | 0.025 | 0.020 | 4 | -0.017 | 0.064 | 4 | 0.011 | 0.023 | 4 | 0.781851938 |
| 4 | 0.039 | 0.044 | 4 | -0.014 | 0.030 | 4 | -0.042 | 0.040 | 4 | 0.78208401 |
| 4 | 0.031 | 0.034 | 4 | -0.004 | 0.064 | 4 | 0.041 | 0.056 | 4 | 0.782316083 |
| 4 | 0.011 | 0.033 | 4 | 0.022 | 0.052 | 4 | 0.011 | 0.033 | 4 | 0.782548155 |
| 4 | 0.041 | 0.016 | 4 | 0.042 | 0.040 | 4 | 0.039 | 0.018 | 4 | 0.782780227 |
| 4 | 0.012 | 0.006 | 4 | 0.027 | 0.026 | 4 | 0.025 | 0.010 | 4 | 0.7830123 |
| 2 | 0.012 | 0.018 | 2 | 0.005 | 0.040 | 2 | 0.036 | 0.018 | 2 | 0.783244372 |
| 3 | 0.031 | 0.030 | 4 | -0.048 | 0.026 | 4 | -0.012 | 0.020 | 4 | 0.783476445 |
| 3 | 0.091 | 0.038 | 3 | -0.013 | 0.049 | 3 | 0.158 | 0.030 | 3 | 0.783708517 |
| 4 | -0.007 | 0.026 | 4 | 0.034 | 0.058 | 4 | 0.010 | 0.030 | 4 | 0.783940589 |
| 4 | 0.067 | 0.025 | 4 | -0.063 | 0.037 | 4 | 0.075 | 0.003 | 4 | 0.784172662 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 4 | 0.002 | 0.024 | 4 | 0.050 | 0.035 | 4 | 0.019 | 0.029 | 4 | 0.784404734 |
| 4 | 0.115 | 0.062 | 4 | 0.079 | 0.031 | 4 | 0.073 | 0.032 | 4 | 0.784636807 |
| 4 | 0.046 | 0.020 | 4 | 0.032 | 0.028 | 4 | 0.019 | 0.015 | 4 | 0.784868879 |
| 4 | 0.035 | 0.038 | 4 | -0.002 | 0.022 | 4 | 0.032 | 0.041 | 4 | 0.785100951 |
| 3 | -0.003 | 0.041 | 3 | 0.055 | 0.022 | 3 | 0.019 | 0.035 | 3 | 0.785333024 |
| 3 | 0.001 | 0.043 | 3 | 0.005 | 0.031 | 3 | -0.033 | 0.056 | 3 | 0.785565096 |
| 4 | 0.019 | 0.019 | 4 | 0.003 | 0.045 | 4 | 0.035 | 0.021 | 4 | 0.785797169 |
| 4 | -0.005 | 0.014 | 4 | -0.019 | 0.042 | 4 | 0.046 | 0.016 | 4 | 0.786029241 |
| 2 | 0.050 | 0.010 | 2 | 0.094 | 0.005 | 2 | 0.000 | 0.019 | 2 | 0.786261314 |
| 4 | 0.000 | 0.035 | 4 | 0.025 | 0.034 | 4 | 0.063 | 0.014 | 4 | 0.786493386 |
| 4 | -0.024 | 0.031 | 4 | 0.036 | 0.042 | 4 | 0.039 | 0.029 | 4 | 0.786725458 |
| 4 | 0.014 | 0.033 | 4 | 0.030 | 0.043 | 4 | 0.041 | 0.019 | 4 | 0.786957531 |
| 4 | 0.019 | 0.021 | 4 | 0.041 | 0.050 | 4 | -0.014 | 0.114 | 4 | 0.787189603 |
| 4 | 0.017 | 0.026 | 4 | 0.093 | 0.006 | 4 | 0.021 | 0.035 | 4 | 0.787421676 |
| 4 | 0.058 | 0.022 | 4 | 0.033 | 0.059 | 4 | 0.062 | 0.047 | 4 | 0.787653748 |
| 3 | 0.072 | 0.019 | 3 | 0.014 | 0.039 | 3 | 0.027 | 0.014 | 3 | 0.78788582 |
| 4 | 0.010 | 0.021 | 4 | 0.004 | 0.026 | 4 | 0.016 | 0.023 | 4 | 0.788117893 |
| 2 | 0.062 | 0.030 | 2 | 0.079 | 0.083 | 2 | 0.048 | 0.031 | 2 | 0.788349965 |
| 4 | 0.033 | 0.022 | 4 | 0.032 | 0.039 | 4 | -0.005 | 0.023 | 4 | 0.788582038 |
| 4 | 0.030 | 0.012 | 4 | 0.045 | 0.035 | 4 | 0.050 | 0.039 | 4 | 0.78881411 |
| 4 | 0.037 | 0.024 | 4 | 0.037 | 0.030 | 4 | 0.024 | 0.008 | 4 | 0.789046182 |
| 3 | 0.004 | 0.004 | 4 | -0.043 | 0.051 | 4 | 0.032 | 0.030 | 4 | 0.789278255 |
| 3 | 0.035 | 0.032 | 4 | 0.039 | 0.059 | 4 | 0.067 | 0.046 | 4 | 0.789510327 |
| 4 | 0.063 | 0.012 | 4 | 0.001 | 0.040 | 4 | 0.012 | 0.028 | 4 | 0.7897424 |
| 4 | 0.023 | 0.019 | 4 | 0.080 | 0.041 | 4 | 0.046 | 0.037 | 4 | 0.789974472 |
| 4 | -0.004 | 0.025 | 4 | 0.012 | 0.043 | 4 | 0.052 | 0.032 | 4 | 0.790206544 |
| 4 | 0.027 | 0.034 | 4 | 0.040 | 0.051 | 4 | -0.018 | 0.053 | 4 | 0.790438617 |
| 4 | 0.021 | 0.033 | 4 | 0.014 | 0.061 | 4 | 0.004 | 0.061 | 4 | 0.790670689 |
| 4 | 0.031 | 0.050 | 4 | 0.012 | 0.054 | 4 | 0.041 | 0.032 | 4 | 0.790902762 |
| 4 | -0.018 | 0.015 | 4 | 0.022 | 0.054 | 4 | 0.082 | 0.013 | 4 | 0.791134834 |
| 4 | -0.022 | 0.017 | 4 | 0.040 | 0.035 | 4 | 0.040 | 0.022 | 4 | 0.791366906 |
| 4 | 0.036 | 0.032 | 4 | 0.023 | 0.057 | 4 | 0.023 | 0.038 | 4 | 0.791598979 |
| 4 | 0.042 | 0.026 | 4 | 0.034 | 0.045 | 4 | 0.036 | 0.042 | 4 | 0.791831051 |
| 3 | 0.061 | 0.035 | 3 | 0.019 | 0.023 | 3 | 0.047 | 0.026 | 3 | 0.792063124 |
| 4 | 0.026 | 0.031 | 4 | -0.021 | 0.043 | 4 | 0.032 | 0.020 | 4 | 0.792295196 |
| 3 | 0.039 | 0.034 | 4 | 0.030 | 0.029 | 4 | 0.030 | 0.028 | 4 | 0.792527269 |
| 4 | 0.037 | 0.022 | 4 | -0.018 | 0.048 | 4 | 0.003 | 0.032 | 4 | 0.792759341 |
| 2 | 0.009 | 0.002 | 2 | -0.010 | 0.027 | 2 | 0.026 | 0.008 | 2 | 0.792991413 |
| 4 | 0.033 | 0.029 | 4 | -0.034 | 0.085 | 4 | 0.046 | 0.027 | 4 | 0.793223486 |
| 4 | -0.003 | 0.040 | 4 | -0.008 | 0.051 | 4 | 0.006 | 0.029 | 4 | 0.793455558 |
| 3 | 0.002 | 0.029 | 3 | 0.021 | 0.021 | 3 | -0.007 | 0.018 | 3 | 0.793687631 |
| 2 | -0.027 | 0.007 | 2 | 0.036 | 0.003 | 2 | -0.030 | 0.019 | 2 | 0.793919703 |
| 4 | 0.011 | 0.020 | 4 | 0.010 | 0.031 | 4 | 0.023 | 0.013 | 4 | 0.794151775 |
| 4 | 0.061 | 0.027 | 4 | -0.013 | 0.050 | 4 | 0.044 | 0.008 | 4 | 0.794383848 |
| 2 | -0.008 | 0.033 | 2 | -0.006 | 0.022 | 2 | 0.060 | 0.019 | 2 | 0.79461592 |
| 4 | 0.030 | 0.026 | 4 | 0.016 | 0.018 | 4 | 0.024 | 0.018 | 4 | 0.794847993 |
| 4 | 0.005 | 0.035 | 4 | 0.018 | 0.020 | 4 | 0.049 | 0.047 | 4 | 0.795080065 |
| 4 | 0.030 | 0.025 | 4 | -0.031 | 0.025 | 4 | 0.028 | 0.021 | 4 | 0.795312137 |
| 4 | 0.016 | 0.014 | 4 | 0.015 | 0.025 | 4 | 0.029 | 0.036 | 4 | 0.79554421 |
| 4 | -0.021 | 0.044 | 4 | 0.048 | 0.020 | 4 | 0.011 | 0.011 | 4 | 0.795776282 |
| 2 | -0.003 | 0.008 | 2 | 0.043 | 0.025 | 2 | -0.003 | 0.001 | 2 | 0.796008355 |
| 4 | 0.017 | 0.010 | 4 | 0.007 | 0.031 | 4 | 0.033 | 0.004 | 4 | 0.796240427 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 4 | -0.009 | 0.016 | 4 | -0.029 | 0.045 | 4 | 0.050 | 0.020 | 4 | 0.796472499 |
| 4 | -0.054 | 0.043 | 4 | 0.014 | 0.021 | 4 | 0.009 | 0.004 | 4 | 0.796704572 |
| 2 | 0.009 | 0.020 | 2 | -0.001 | 0.036 | 2 | 0.019 | 0.031 | 2 | 0.796936644 |
| 4 | 0.032 | 0.018 | 4 | 0.019 | 0.053 | 4 | 0.042 | 0.035 | 4 | 0.797168717 |
| 3 | 0.042 | 0.020 | 4 | -0.025 | 0.035 | 4 | 0.044 | 0.010 | 4 | 0.797400789 |
| 4 | 0.033 | 0.033 | 4 | 0.061 | 0.026 | 4 | -0.002 | 0.009 | 4 | 0.797632861 |
| 4 | 0.033 | 0.031 | 4 | 0.037 | 0.062 | 4 | 0.039 | 0.043 | 4 | 0.797864934 |
| 3 | -0.009 | 0.029 | 3 | 0.007 | 0.053 | 3 | 0.004 | 0.021 | 3 | 0.798097006 |
| 4 | 0.095 | 0.026 | 4 | 0.076 | 0.064 | 4 | 0.013 | 0.007 | 4 | 0.798329079 |
| 4 | 0.034 | 0.046 | 4 | 0.028 | 0.035 | 4 | 0.043 | 0.017 | 4 | 0.798561151 |
| 2 | 0.038 | 0.024 | 2 | 0.036 | 0.042 | 2 | 0.098 | 0.001 | 2 | 0.798793223 |
| 4 | 0.052 | 0.020 | 4 | 0.008 | 0.062 | 4 | 0.013 | 0.025 | 4 | 0.799025296 |
| 4 | 0.013 | 0.027 | 4 | 0.002 | 0.030 | 4 | 0.031 | 0.024 | 4 | 0.799257368 |
| 4 | -0.013 | 0.078 | 4 | -0.040 | 0.091 | 4 | 0.103 | 0.018 | 4 | 0.799489441 |
| 4 | 0.008 | 0.027 | 4 | 0.024 | 0.028 | 4 | 0.014 | 0.011 | 4 | 0.799721513 |
| 4 | 0.030 | 0.018 | 4 | -0.024 | 0.082 | 4 | 0.076 | 0.010 | 4 | 0.799953586 |
| 4 | 0.006 | 0.020 | 4 | 0.039 | 0.018 | 4 | 0.048 | 0.033 | 4 | 0.800185658 |
| 4 | -0.003 | 0.042 | 4 | 0.004 | 0.045 | 4 | 0.004 | 0.035 | 4 | 0.80041773 |
| 3 | -0.012 | 0.021 | 4 | 0.034 | 0.040 | 4 | 0.014 | 0.030 | 4 | 0.800649803 |
| 4 | 0.049 | 0.014 | 4 | 0.017 | 0.016 | 4 | -0.001 | 0.012 | 4 | 0.800881875 |
| 4 | -0.012 | 0.011 | 4 | -0.001 | 0.047 | 4 | 0.019 | 0.022 | 4 | 0.801113948 |
| 4 | 0.000 | 0.009 | 4 | 0.055 | 0.033 | 4 | 0.091 | 0.016 | 4 | 0.80134602 |
| 4 | 0.021 | 0.028 | 4 | 0.019 | 0.052 | 4 | 0.024 | 0.048 | 4 | 0.801578092 |
| 4 | 0.034 | 0.020 | 4 | 0.058 | 0.018 | 4 | 0.015 | 0.029 | 4 | 0.801810165 |
| 2 | 0.037 | 0.007 | 2 | 0.061 | 0.013 | 2 | 0.033 | 0.003 | 2 | 0.802042237 |
| 4 | 0.009 | 0.022 | 4 | 0.068 | 0.032 | 4 | 0.062 | 0.019 | 4 | 0.80227431 |
| 4 | 0.040 | 0.032 | 4 | 0.019 | 0.043 | 4 | 0.029 | 0.017 | 4 | 0.802506382 |
| 4 | 0.055 | 0.016 | 4 | 0.028 | 0.034 | 4 | 0.015 | 0.017 | 4 | 0.802738454 |
| 4 | 0.024 | 0.018 | 4 | -0.013 | 0.041 | 4 | 0.001 | 0.032 | 4 | 0.802970527 |
| 3 | 0.017 | 0.053 | 3 | 0.025 | 0.057 | 3 | 0.066 | 0.071 | 3 | 0.803202599 |
| 4 | -0.036 | 0.023 | 4 | -0.014 | 0.040 | 4 | 0.065 | 0.013 | 4 | 0.803434672 |
| 4 | 0.000 | 0.026 | 4 | 0.082 | 0.038 | 4 | 0.002 | 0.015 | 4 | 0.803666744 |
| 2 | 0.051 | 0.041 | 2 | 0.051 | 0.031 | 2 | 0.081 | 0.029 | 2 | 0.803898816 |
| 3 | -0.008 | 0.019 | 4 | 0.044 | 0.039 | 4 | 0.046 | 0.017 | 4 | 0.804130889 |
| 4 | 0.023 | 0.035 | 4 | 0.028 | 0.058 | 4 | 0.035 | 0.034 | 4 | 0.804362961 |
| 2 | 0.030 | 0.032 | 2 | 0.050 | 0.064 | 2 | 0.035 | 0.044 | 2 | 0.804595034 |
| 4 | 0.031 | 0.021 | 4 | 0.041 | 0.049 | 4 | 0.015 | 0.023 | 4 | 0.804827106 |
| 4 | 0.026 | 0.017 | 4 | 0.027 | 0.043 | 4 | 0.013 | 0.030 | 4 | 0.805059178 |
| 4 | 0.003 | 0.019 | 4 | 0.024 | 0.054 | 4 | 0.041 | 0.029 | 4 | 0.805291251 |
| 4 | -0.005 | 0.018 | 4 | 0.017 | 0.040 | 4 | 0.039 | 0.030 | 4 | 0.805523323 |
| 4 | 0.001 | 0.029 | 4 | 0.013 | 0.039 | 4 | 0.000 | 0.023 | 4 | 0.805755396 |
| 4 | 0.029 | 0.047 | 4 | 0.062 | 0.014 | 4 | -0.003 | 0.020 | 4 | 0.805987468 |
| 4 | 0.018 | 0.033 | 4 | -0.023 | 0.018 | 4 | 0.035 | 0.026 | 4 | 0.80621954 |
| 4 | 0.036 | 0.032 | 4 | 0.005 | 0.067 | 4 | 0.030 | 0.021 | 4 | 0.806451613 |
| 4 | 0.026 | 0.035 | 4 | 0.012 | 0.049 | 4 | 0.052 | 0.043 | 4 | 0.806683685 |
| 2 | 0.089 | 0.005 | 2 | 0.065 | 0.037 | 2 | 0.054 | 0.014 | 2 | 0.806915758 |
| 4 | 0.007 | 0.022 | 4 | 0.027 | 0.025 | 4 | 0.044 | 0.024 | 4 | 0.80714783 |
| 3 | 0.001 | 0.027 | 4 | 0.021 | 0.034 | 4 | 0.013 | 0.026 | 4 | 0.807379903 |
| 4 | 0.043 | 0.023 | 4 | 0.038 | 0.021 | 4 | 0.042 | 0.038 | 4 | 0.807611975 |
| 4 | -0.011 | 0.027 | 4 | -0.002 | 0.044 | 4 | 0.072 | 0.013 | 4 | 0.807844047 |
| 4 | 0.004 | 0.036 | 4 | -0.001 | 0.023 | 4 | 0.037 | 0.015 | 4 | 0.80807612 |
| 4 | 0.014 | 0.012 | 4 | 0.031 | 0.035 | 4 | 0.044 | 0.014 | 4 | 0.808308192 |

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|---|---|---|---|---|---|---|---|---|---|---|
| 4 | -0.002 | 0.025 | 4 | 0.015 | 0.054 | 4 | 0.036 | 0.023 | 4 | 0.808540265 |
| 3 | 0.015 | 0.048 | 3 | 0.019 | 0.019 | 3 | 0.023 | 0.027 | 3 | 0.808772337 |
| 4 | 0.004 | 0.037 | 4 | 0.002 | 0.034 | 4 | 0.010 | 0.057 | 4 | 0.809004409 |
| 4 | -0.008 | 0.054 | 4 | 0.015 | 0.035 | 4 | 0.019 | 0.017 | 4 | 0.809236482 |
| 4 | -0.034 | 0.044 | 4 | -0.020 | 0.039 | 4 | 0.027 | 0.023 | 4 | 0.809468554 |
| 4 | 0.052 | 0.011 | 4 | 0.022 | 0.041 | 4 | 0.039 | 0.019 | 4 | 0.809700627 |
| 4 | -0.003 | 0.030 | 4 | 0.067 | 0.024 | 4 | -0.028 | 0.018 | 4 | 0.809932699 |
| 4 | 0.047 | 0.014 | 4 | -0.010 | 0.042 | 4 | 0.031 | 0.030 | 4 | 0.810164771 |
| 4 | 0.025 | 0.035 | 4 | 0.012 | 0.048 | 4 | 0.043 | 0.019 | 4 | 0.810396844 |
| 3 | 0.019 | 0.048 | 3 | 0.019 | 0.025 | 3 | 0.054 | 0.028 | 3 | 0.810628916 |
| 4 | -0.058 | 0.027 | 4 | 0.090 | 0.035 | 4 | 0.038 | 0.030 | 4 | 0.810860989 |
| 4 | 0.039 | 0.029 | 4 | -0.031 | 0.061 | 4 | 0.013 | 0.032 | 4 | 0.811093061 |
| 4 | 0.006 | 0.029 | 4 | 0.016 | 0.060 | 4 | 0.035 | 0.027 | 4 | 0.811325133 |
| 4 | 0.023 | 0.043 | 4 | 0.026 | 0.024 | 4 | 0.042 | 0.017 | 4 | 0.811557206 |
| 4 | 0.051 | 0.011 | 4 | 0.034 | 0.035 | 4 | 0.058 | 0.009 | 4 | 0.811789278 |
| 4 | 0.073 | 0.023 | 4 | 0.016 | 0.062 | 4 | -0.025 | 0.029 | 4 | 0.812021351 |
| 4 | 0.029 | 0.023 | 4 | -0.021 | 0.055 | 4 | 0.022 | 0.021 | 4 | 0.812253423 |
| 4 | -0.021 | 0.035 | 4 | 0.006 | 0.038 | 4 | 0.075 | 0.034 | 4 | 0.812485495 |
| 3 | -0.010 | 0.033 | 4 | 0.030 | 0.034 | 4 | 0.021 | 0.016 | 4 | 0.812717568 |
| 4 | 0.039 | 0.033 | 4 | 0.020 | 0.035 | 4 | 0.022 | 0.015 | 4 | 0.81294964 |
| 4 | 0.079 | 0.030 | 4 | 0.070 | 0.015 | 4 | 0.016 | 0.041 | 4 | 0.813181713 |
| 2 | 0.010 | 0.009 | 2 | 0.018 | 0.006 | 2 | 0.031 | 0.001 | 2 | 0.813413785 |
| 4 | 0.032 | 0.005 | 4 | -0.005 | 0.025 | 4 | 0.032 | 0.007 | 4 | 0.813645858 |
| 4 | 0.004 | 0.017 | 4 | 0.030 | 0.027 | 4 | 0.027 | 0.012 | 4 | 0.81387793 |
| 4 | 0.037 | 0.040 | 4 | 0.053 | 0.032 | 4 | 0.050 | 0.040 | 4 | 0.814110002 |
| 4 | 0.033 | 0.028 | 4 | 0.042 | 0.046 | 4 | 0.021 | 0.032 | 4 | 0.814342075 |
| 4 | 0.033 | 0.024 | 4 | 0.009 | 0.044 | 4 | 0.023 | 0.011 | 4 | 0.814574147 |
| 4 | 0.021 | 0.005 | 4 | 0.016 | 0.030 | 4 | 0.031 | 0.025 | 4 | 0.81480622 |
| 4 | 0.050 | 0.021 | 4 | 0.047 | 0.030 | 4 | 0.023 | 0.033 | 4 | 0.815038292 |
| 4 | -0.025 | 0.104 | 4 | 0.026 | 0.072 | 4 | 0.081 | 0.047 | 4 | 0.815270364 |
| 2 | 0.062 | 0.075 | 2 | -0.018 | 0.061 | 2 | -0.018 | 0.119 | 2 | 0.815502437 |
| 4 | 0.057 | 0.014 | 4 | 0.027 | 0.059 | 4 | -0.001 | 0.008 | 4 | 0.815734509 |
| 3 | 0.047 | 0.025 | 4 | 0.008 | 0.052 | 4 | 0.017 | 0.046 | 4 | 0.815966582 |
| 4 | -0.004 | 0.012 | 4 | -0.012 | 0.044 | 4 | 0.102 | 0.014 | 4 | 0.816198654 |
| 4 | 0.023 | 0.018 | 4 | 0.041 | 0.043 | 4 | 0.074 | 0.030 | 4 | 0.816430726 |
| 4 | -0.004 | 0.020 | 4 | 0.047 | 0.023 | 4 | 0.047 | 0.024 | 4 | 0.816662799 |
| 3 | 0.025 | 0.054 | 3 | -0.004 | 0.092 | 3 | -0.040 | 0.038 | 3 | 0.816894871 |
| 4 | 0.017 | 0.024 | 4 | 0.020 | 0.036 | 4 | 0.057 | 0.029 | 4 | 0.817126944 |
| 4 | 0.035 | 0.021 | 4 | 0.042 | 0.056 | 4 | 0.002 | 0.051 | 4 | 0.817359016 |
| 4 | 0.013 | 0.034 | 4 | 0.049 | 0.017 | 4 | 0.020 | 0.006 | 4 | 0.817591088 |
| 4 | -0.006 | 0.038 | 4 | -0.006 | 0.045 | 4 | 0.054 | 0.043 | 4 | 0.817823161 |
| 4 | 0.035 | 0.013 | 4 | 0.025 | 0.027 | 4 | 0.006 | 0.018 | 4 | 0.818055233 |
| 4 | 0.012 | 0.038 | 4 | 0.011 | 0.078 | 4 | 0.052 | 0.080 | 4 | 0.818287306 |
| 4 | 0.019 | 0.022 | 4 | 0.011 | 0.024 | 4 | 0.034 | 0.009 | 4 | 0.818519378 |
| 4 | 0.015 | 0.026 | 4 | -0.005 | 0.018 | 4 | 0.066 | 0.047 | 4 | 0.81875145 |
| 4 | 0.053 | 0.049 | 4 | 0.018 | 0.040 | 4 | 0.025 | 0.031 | 4 | 0.818983523 |
| 4 | 0.040 | 0.033 | 4 | 0.021 | 0.049 | 4 | 0.050 | 0.036 | 4 | 0.819215595 |
| 4 | 0.041 | 0.006 | 4 | 0.057 | 0.030 | 4 | 0.007 | 0.042 | 4 | 0.819447668 |
| 4 | 0.033 | 0.044 | 4 | 0.031 | 0.059 | 4 | 0.083 | 0.050 | 4 | 0.81967974 |
| 2 | 0.021 | 0.051 | 4 | 0.065 | 0.019 | 4 | 0.011 | 0.021 | 4 | 0.819911812 |
| 4 | 0.026 | 0.021 | 4 | 0.025 | 0.022 | 4 | 0.031 | 0.011 | 4 | 0.820143885 |
| 2 | 0.025 | 0.042 | 2 | -0.041 | 0.013 | 2 | 0.046 | 0.008 | 2 | 0.820375957 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 4 | 0.035 | 0.076 | 4 | 0.034 | 0.084 | 4 | 0.076 | 0.053 | 4 | 0.82060803 |
| 4 | 0.087 | 0.012 | 4 | 0.058 | 0.029 | 4 | 0.040 | 0.020 | 4 | 0.820840102 |
| 3 | -0.002 | 0.040 | 4 | 0.045 | 0.063 | 4 | 0.026 | 0.047 | 4 | 0.821072175 |
| 4 | 0.022 | 0.016 | 4 | 0.071 | 0.029 | 4 | -0.039 | 0.124 | 4 | 0.821304247 |
| 4 | 0.046 | 0.032 | 4 | 0.047 | 0.058 | 4 | 0.052 | 0.035 | 4 | 0.821536319 |
| 4 | 0.035 | 0.033 | 4 | 0.021 | 0.064 | 4 | 0.039 | 0.033 | 4 | 0.821768392 |
| 4 | 0.067 | 0.073 | 4 | 0.029 | 0.061 | 4 | 0.113 | 0.078 | 4 | 0.822000464 |
| 4 | 0.083 | 0.030 | 4 | 0.006 | 0.044 | 4 | -0.007 | 0.019 | 4 | 0.822232537 |
| 3 | -0.030 | 0.026 | 4 | 0.096 | 0.049 | 4 | -0.006 | 0.031 | 4 | 0.822464609 |
| 4 | 0.067 | 0.009 | 4 | 0.003 | 0.053 | 4 | 0.033 | 0.019 | 4 | 0.822696681 |
| 4 | 0.018 | 0.047 | 4 | -0.022 | 0.061 | 4 | 0.085 | 0.042 | 4 | 0.822928754 |
| 4 | 0.032 | 0.031 | 4 | 0.049 | 0.050 | 4 | 0.016 | 0.055 | 4 | 0.823160826 |
| 4 | 0.057 | 0.017 | 4 | 0.013 | 0.044 | 4 | 0.011 | 0.060 | 4 | 0.823392899 |
| 4 | 0.026 | 0.017 | 4 | 0.036 | 0.019 | 4 | 0.035 | 0.010 | 4 | 0.823624971 |
| 4 | 0.045 | 0.011 | 4 | 0.043 | 0.057 | 4 | 0.050 | 0.039 | 4 | 0.823857043 |
| 2 | 0.002 | 0.001 | 2 | 0.025 | 0.018 | 2 | 0.037 | 0.004 | 2 | 0.824089116 |
| 4 | 0.018 | 0.017 | 4 | 0.019 | 0.027 | 4 | 0.033 | 0.012 | 4 | 0.824321188 |
| 3 | -0.068 | 0.053 | 3 | 0.035 | 0.060 | 3 | 0.072 | 0.049 | 3 | 0.824553261 |
| 4 | 0.017 | 0.049 | 4 | -0.001 | 0.030 | 4 | 0.032 | 0.023 | 4 | 0.824785333 |
| 4 | 0.101 | 0.015 | 4 | 0.018 | 0.033 | 4 | 0.029 | 0.024 | 4 | 0.825017405 |
| 4 | 0.006 | 0.012 | 4 | 0.041 | 0.012 | 4 | 0.076 | 0.011 | 4 | 0.825249478 |
| 2 | 0.006 | 0.014 | 2 | -0.064 | 0.036 | 2 | 0.073 | 0.006 | 2 | 0.82548155 |
| 2 | 0.053 | 0.033 | 2 | 0.034 | 0.014 | 2 | -0.021 | 0.019 | 2 | 0.825713623 |
| 2 | 0.004 | 0.019 | 2 | 0.033 | 0.035 | 2 | 0.048 | 0.007 | 2 | 0.825945695 |
| 4 | 0.074 | 0.040 | 4 | 0.052 | 0.046 | 4 | 0.054 | 0.035 | 4 | 0.826177767 |
| 2 | 0.038 | 0.002 | 2 | 0.041 | 0.036 | 2 | 0.059 | 0.016 | 2 | 0.82640984 |
| 3 | -0.109 | 0.038 | 3 | 0.101 | 0.030 | 3 | 0.207 | 0.007 | 3 | 0.826641912 |
| 4 | 0.045 | 0.018 | 4 | 0.051 | 0.047 | 4 | 0.096 | 0.027 | 4 | 0.826873985 |
| 4 | 0.010 | 0.007 | 4 | 0.030 | 0.041 | 4 | 0.012 | 0.017 | 4 | 0.827106057 |
| 4 | 0.027 | 0.023 | 4 | 0.038 | 0.027 | 4 | 0.013 | 0.018 | 4 | 0.827338129 |
| 4 | 0.009 | 0.015 | 4 | -0.028 | 0.016 | 4 | 0.029 | 0.008 | 4 | 0.827570202 |
| 4 | -0.007 | 0.037 | 4 | 0.022 | 0.029 | 4 | 0.056 | 0.017 | 4 | 0.827802274 |
| 3 | -0.021 | 0.034 | 3 | -0.015 | 0.044 | 3 | 0.150 | 0.041 | 3 | 0.828034347 |
| 2 | -0.031 | 0.024 | 3 | -0.024 | 0.030 | 3 | 0.137 | 0.020 | 3 | 0.828266419 |
| 4 | 0.018 | 0.052 | 4 | 0.026 | 0.046 | 4 | 0.032 | 0.038 | 4 | 0.828498492 |
| 4 | 0.027 | 0.029 | 4 | -0.011 | 0.060 | 4 | 0.016 | 0.048 | 4 | 0.828730564 |
| 4 | 0.002 | 0.027 | 4 | 0.027 | 0.037 | 4 | 0.044 | 0.027 | 4 | 0.828962636 |
| 4 | -0.059 | 0.017 | 4 | 0.020 | 0.024 | 4 | 0.009 | 0.034 | 4 | 0.829194709 |
| 4 | 0.019 | 0.009 | 4 | 0.057 | 0.029 | 4 | 0.058 | 0.025 | 4 | 0.829426781 |
| 4 | 0.026 | 0.014 | 4 | 0.042 | 0.039 | 4 | 0.031 | 0.015 | 4 | 0.829658854 |
| 4 | 0.019 | 0.042 | 4 | 0.038 | 0.047 | 4 | 0.029 | 0.051 | 4 | 0.829890926 |
| 4 | -0.014 | 0.016 | 4 | 0.005 | 0.036 | 4 | 0.059 | 0.016 | 4 | 0.830122998 |
| 2 | -0.043 | 0.032 | 4 | 0.044 | 0.037 | 4 | 0.135 | 0.042 | 4 | 0.830355071 |
| 4 | 0.032 | 0.020 | 4 | 0.035 | 0.043 | 4 | 0.010 | 0.027 | 4 | 0.830587143 |
| 2 | 0.007 | 0.019 | 2 | -0.007 | 0.023 | 2 | 0.033 | 0.021 | 2 | 0.830819216 |
| 2 | 0.041 | 0.006 | 2 | 0.004 | 0.054 | 2 | 0.029 | 0.011 | 2 | 0.831051288 |
| 4 | 0.016 | 0.019 | 4 | 0.029 | 0.033 | 4 | -0.005 | 0.024 | 4 | 0.83128336 |
| 4 | 0.003 | 0.029 | 4 | 0.014 | 0.032 | 4 | 0.019 | 0.035 | 4 | 0.831515433 |
| 4 | 0.073 | 0.042 | 4 | 0.046 | 0.049 | 4 | 0.027 | 0.048 | 4 | 0.831747505 |
| 4 | 0.027 | 0.028 | 4 | -0.010 | 0.055 | 4 | 0.034 | 0.045 | 4 | 0.831979578 |
| 4 | 0.000 | 0.010 | 4 | 0.025 | 0.012 | 4 | 0.043 | 0.024 | 4 | 0.83221165 |
| 3 | 0.033 | 0.012 | 4 | -0.006 | 0.018 | 4 | 0.040 | 0.017 | 4 | 0.832443722 |

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|---|---|---|---|---|---|---|---|---|---|---|
| 4 | 0.020 | 0.044 | 4 | -0.016 | 0.077 | 4 | 0.038 | 0.037 | 4 | 0.832675795 |
| 4 | -0.143 | 0.031 | 4 | 0.063 | 0.039 | 4 | 0.145 | 0.039 | 4 | 0.832907867 |
| 4 | 0.015 | 0.037 | 4 | 0.078 | 0.050 | 4 | 0.043 | 0.020 | 4 | 0.83313994 |
| 2 | 0.063 | 0.015 | 2 | 0.038 | 0.035 | 2 | 0.042 | 0.017 | 2 | 0.833372012 |
| 4 | 0.011 | 0.022 | 4 | 0.007 | 0.020 | 4 | 0.047 | 0.051 | 4 | 0.833604084 |
| 4 | 0.032 | 0.022 | 4 | 0.041 | 0.037 | 4 | 0.057 | 0.014 | 4 | 0.833836157 |
| 4 | 0.040 | 0.035 | 4 | 0.005 | 0.028 | 4 | 0.079 | 0.027 | 4 | 0.834068229 |
| 3 | 0.081 | 0.034 | 4 | 0.059 | 0.028 | 4 | 0.070 | 0.039 | 4 | 0.834300302 |
| 4 | 0.093 | 0.021 | 4 | 0.096 | 0.025 | 4 | -0.027 | 0.111 | 4 | 0.834532374 |
| 4 | 0.052 | 0.038 | 4 | 0.064 | 0.042 | 4 | 0.068 | 0.029 | 4 | 0.834764447 |
| | 0.085 | 0.046 | 2 | 0.117 | 0.019 | 2 | -0.115 | 0.040 | 2 | 0.834996519 |
| 4 | 0.016 | 0.042 | 4 | 0.034 | 0.028 | 4 | 0.029 | 0.021 | 4 | 0.835228591 |
| 4 | 0.044 | 0.050 | 4 | 0.030 | 0.036 | 4 | 0.023 | 0.027 | 4 | 0.835460664 |
| 4 | 0.056 | 0.012 | 4 | -0.006 | 0.031 | 4 | 0.019 | 0.027 | 4 | 0.835692736 |
| 4 | 0.038 | 0.023 | 4 | 0.021 | 0.019 | 4 | 0.021 | 0.017 | 4 | 0.835924809 |
| 4 | 0.059 | 0.023 | 4 | 0.031 | 0.027 | 4 | 0.059 | 0.030 | 4 | 0.836156881 |
| 4 | 0.063 | 0.026 | 4 | 0.017 | 0.042 | 4 | 0.033 | 0.026 | 4 | 0.836388953 |
| 4 | 0.020 | 0.035 | 4 | -0.034 | 0.030 | 4 | 0.076 | 0.030 | 4 | 0.836621026 |
| 4 | 0.020 | 0.032 | 4 | 0.020 | 0.058 | 4 | 0.055 | 0.040 | 4 | 0.836853098 |
| 4 | 0.036 | 0.031 | 4 | 0.001 | 0.035 | 4 | 0.072 | 0.048 | 4 | 0.837085171 |
| 4 | 0.040 | 0.040 | 4 | 0.024 | 0.061 | 4 | 0.015 | 0.019 | 4 | 0.837317243 |
| 4 | 0.025 | 0.031 | 4 | 0.051 | 0.033 | 4 | 0.046 | 0.029 | 4 | 0.837549315 |
| 4 | -0.028 | 0.041 | 4 | 0.040 | 0.024 | 4 | 0.036 | 0.031 | 4 | 0.837781388 |
| 2 | 0.010 | 0.043 | 2 | 0.014 | 0.008 | 2 | 0.076 | 0.053 | 2 | 0.83801346 |
| 4 | 0.023 | 0.019 | 4 | 0.042 | 0.045 | 4 | 0.038 | 0.015 | 4 | 0.838245533 |
| 3 | 0.057 | 0.027 | 3 | 0.053 | 0.036 | 3 | 0.043 | 0.048 | 3 | 0.838477605 |
| 4 | -0.019 | 0.039 | 4 | -0.011 | 0.056 | 4 | 0.069 | 0.042 | 4 | 0.838709677 |
| 3 | 0.032 | 0.024 | 4 | 0.048 | 0.023 | 4 | 0.004 | 0.067 | 4 | 0.83894175 |
| 4 | 0.026 | 0.018 | 4 | 0.036 | 0.043 | 4 | 0.014 | 0.035 | 4 | 0.839173822 |
| 3 | 0.014 | 0.017 | 4 | -0.037 | 0.038 | 4 | 0.031 | 0.032 | 4 | 0.839405895 |
| 4 | 0.033 | 0.033 | 4 | 0.058 | 0.025 | 4 | 0.062 | 0.024 | 4 | 0.839637967 |
| 4 | 0.056 | 0.011 | 4 | 0.042 | 0.052 | 4 | 0.034 | 0.020 | 4 | 0.839870039 |
| 3 | 0.002 | 0.023 | 4 | 0.072 | 0.040 | 4 | 0.048 | 0.026 | 4 | 0.840102112 |
| 3 | 0.018 | 0.004 | 3 | -0.009 | 0.064 | 3 | 0.060 | 0.011 | 3 | 0.840334184 |
| 4 | 0.028 | 0.019 | 4 | 0.034 | 0.025 | 4 | 0.036 | 0.017 | 4 | 0.840566257 |
| 4 | 0.007 | 0.006 | 4 | 0.050 | 0.022 | 4 | 0.053 | 0.003 | 4 | 0.840798329 |
| 4 | 0.006 | 0.027 | 4 | 0.071 | 0.026 | 4 | 0.036 | 0.012 | 4 | 0.841030401 |
| 4 | 0.077 | 0.010 | 4 | 0.042 | 0.032 | 4 | 0.051 | 0.010 | 4 | 0.841262474 |
| 4 | 0.019 | 0.025 | 4 | 0.023 | 0.032 | 4 | 0.055 | 0.018 | 4 | 0.841494546 |
| 4 | 0.071 | 0.027 | 4 | 0.052 | 0.039 | 4 | 0.063 | 0.024 | 4 | 0.841726619 |
| 4 | 0.045 | 0.023 | 4 | 0.006 | 0.030 | 4 | 0.050 | 0.023 | 4 | 0.841958691 |
| 4 | 0.023 | 0.014 | 4 | 0.036 | 0.027 | 4 | 0.041 | 0.047 | 4 | 0.842190764 |
| 4 | 0.059 | 0.070 | 4 | 0.010 | 0.035 | 4 | 0.030 | 0.053 | 4 | 0.842422836 |
| 2 | 0.060 | 0.017 | 2 | 0.037 | 0.090 | 2 | 0.064 | 0.033 | 2 | 0.842654908 |
| 2 | -0.046 | 0.091 | 2 | 0.014 | 0.025 | 2 | 0.138 | 0.037 | 2 | 0.842886981 |
| 2 | 0.028 | 0.003 | 2 | 0.012 | 0.051 | 2 | 0.022 | 0.007 | 2 | 0.843119053 |
| 2 | 0.048 | 0.019 | 2 | -0.020 | 0.028 | 2 | 0.077 | 0.009 | 2 | 0.843351126 |
| 4 | 0.075 | 0.051 | 4 | 0.042 | 0.035 | 4 | 0.062 | 0.030 | 4 | 0.843583198 |
| 4 | 0.027 | 0.024 | 4 | 0.052 | 0.038 | 4 | 0.037 | 0.032 | 4 | 0.84381527 |
| 4 | 0.013 | 0.010 | 4 | 0.005 | 0.031 | 4 | 0.039 | 0.017 | 4 | 0.844047343 |
| 2 | 0.044 | 0.013 | 2 | 0.027 | 0.066 | 2 | 0.056 | 0.028 | 2 | 0.844279415 |
| 3 | -0.001 | 0.018 | 4 | 0.048 | 0.053 | 4 | 0.072 | 0.030 | 4 | 0.844511488 |

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|---|---|---|---|---|---|---|---|---|---|---|
| 4 | 0.038 | 0.025 | 4 | -0.007 | 0.054 | 4 | 0.044 | 0.023 | 4 | 0.84474356 |
| 4 | 0.048 | 0.017 | 4 | -0.007 | 0.030 | 4 | 0.043 | 0.032 | 4 | 0.844975632 |
| 4 | 0.030 | 0.006 | 4 | 0.025 | 0.018 | 4 | 0.049 | 0.017 | 4 | 0.845207705 |
| 3 | 0.007 | 0.028 | 3 | 0.019 | 0.029 | 3 | 0.025 | 0.123 | 3 | 0.845439777 |
| 4 | 0.007 | 0.020 | 4 | 0.040 | 0.032 | 4 | 0.052 | 0.016 | 4 | 0.84567185 |
| 4 | 0.028 | 0.031 | 4 | 0.073 | 0.042 | 4 | 0.039 | 0.023 | 4 | 0.845903922 |
| 4 | 0.018 | 0.023 | 4 | 0.028 | 0.029 | 4 | 0.045 | 0.007 | 4 | 0.846135994 |
| 4 | 0.049 | 0.024 | 4 | 0.031 | 0.032 | 4 | -0.009 | 0.007 | 4 | 0.846368067 |
| 3 | 0.009 | 0.063 | 3 | 0.044 | 0.014 | 3 | 0.024 | 0.029 | 3 | 0.846600139 |
| 4 | 0.034 | 0.035 | 4 | 0.009 | 0.050 | 4 | 0.039 | 0.017 | 4 | 0.846832212 |
| 4 | 0.012 | 0.056 | 4 | 0.000 | 0.074 | 4 | 0.052 | 0.010 | 4 | 0.847064284 |
| 3 | 0.023 | 0.026 | 4 | 0.091 | 0.028 | 4 | 0.084 | 0.058 | 4 | 0.847296356 |
| 4 | 0.048 | 0.025 | 4 | 0.033 | 0.027 | 4 | 0.010 | 0.036 | 4 | 0.847528429 |
| 4 | 0.048 | 0.028 | 4 | 0.031 | 0.043 | 4 | 0.045 | 0.022 | 4 | 0.847760501 |
| 3 | -0.025 | 0.100 | 4 | 0.007 | 0.089 | 4 | 0.059 | 0.044 | 4 | 0.847992574 |
| 4 | 0.015 | 0.031 | 4 | 0.018 | 0.018 | 4 | 0.035 | 0.015 | 4 | 0.848224646 |
| 4 | 0.042 | 0.044 | 4 | 0.080 | 0.049 | 4 | 0.074 | 0.030 | 4 | 0.848456718 |
| 4 | 0.022 | 0.028 | 4 | 0.016 | 0.046 | 4 | 0.034 | 0.032 | 4 | 0.848688791 |
| 4 | 0.045 | 0.013 | 4 | 0.028 | 0.043 | 4 | 0.006 | 0.010 | 4 | 0.848920863 |
| 4 | 0.014 | 0.026 | 4 | 0.042 | 0.051 | 4 | 0.098 | 0.023 | 4 | 0.849152936 |
| 4 | 0.050 | 0.023 | 4 | 0.028 | 0.036 | 4 | -0.029 | 0.026 | 4 | 0.849385008 |
| 2 | 0.047 | 0.013 | 2 | -0.007 | 0.011 | 2 | 0.111 | 0.000 | 2 | 0.849617081 |
| 4 | 0.042 | 0.019 | 4 | -0.011 | 0.036 | 4 | 0.050 | 0.017 | 4 | 0.849849153 |
| 4 | 0.042 | 0.024 | 4 | 0.054 | 0.027 | 4 | 0.053 | 0.013 | 4 | 0.850081225 |
| 3 | 0.054 | 0.029 | 4 | 0.073 | 0.048 | 4 | -0.016 | 0.114 | 4 | 0.850313298 |
| 3 | 0.012 | 0.030 | 4 | 0.083 | 0.041 | 4 | 0.064 | 0.052 | 4 | 0.85054537 |
| 2 | 0.015 | 0.039 | 3 | 0.017 | 0.040 | 3 | 0.022 | 0.004 | 3 | 0.850777443 |
| 4 | -0.004 | 0.038 | 4 | 0.062 | 0.059 | 4 | 0.071 | 0.047 | 4 | 0.851009515 |
| 3 | 0.047 | 0.022 | 4 | -0.015 | 0.038 | 4 | 0.067 | 0.004 | 4 | 0.851241587 |
| 4 | -0.011 | 0.033 | 4 | 0.027 | 0.027 | 4 | 0.036 | 0.021 | 4 | 0.85147366 |
| 4 | 0.050 | 0.023 | 4 | 0.057 | 0.031 | 4 | -0.104 | 0.189 | 4 | 0.851705732 |
| 2 | 0.011 | 0.038 | 2 | 0.037 | 0.010 | 2 | 0.054 | 0.005 | 2 | 0.851937805 |
| 4 | 0.002 | 0.019 | 4 | 0.039 | 0.016 | 4 | 0.024 | 0.024 | 4 | 0.852169877 |
| 4 | 0.077 | 0.028 | 4 | 0.061 | 0.025 | 4 | 0.069 | 0.011 | 4 | 0.852401949 |
| 4 | -0.005 | 0.038 | 4 | 0.019 | 0.065 | 4 | 0.109 | 0.058 | 4 | 0.852634022 |
| 4 | 0.021 | 0.012 | 4 | 0.006 | 0.054 | 4 | 0.067 | 0.008 | 4 | 0.852866094 |
| 4 | 0.012 | 0.041 | 4 | 0.091 | 0.016 | 4 | 0.009 | 0.041 | 4 | 0.853098167 |
| 2 | -0.006 | 0.014 | 2 | 0.045 | 0.019 | 2 | 0.085 | 0.021 | 2 | 0.853330239 |
| 4 | 0.029 | 0.030 | 4 | 0.014 | 0.042 | 4 | -0.018 | 0.023 | 4 | 0.853562311 |
| 2 | 0.035 | 0.009 | 2 | 0.018 | 0.016 | 2 | 0.031 | 0.008 | 2 | 0.853794384 |
| 4 | 0.081 | 0.028 | 4 | -0.032 | 0.042 | 4 | 0.030 | 0.049 | 4 | 0.854026456 |
| 3 | -0.009 | 0.008 | 3 | 0.020 | 0.027 | 3 | 0.051 | 0.019 | 3 | 0.854258529 |
| 4 | 0.043 | 0.023 | 4 | 0.065 | 0.032 | 4 | 0.060 | 0.013 | 4 | 0.854490601 |
| 2 | 0.031 | 0.008 | 2 | 0.044 | 0.027 | 2 | 0.054 | 0.004 | 2 | 0.854722673 |
| 4 | -0.059 | 0.025 | 4 | 0.002 | 0.049 | 4 | 0.167 | 0.033 | 4 | 0.854954746 |
| 4 | 0.035 | 0.029 | 4 | 0.011 | 0.046 | 4 | 0.047 | 0.040 | 4 | 0.855186818 |
| 2 | 0.035 | 0.006 | 2 | 0.055 | 0.035 | 2 | 0.068 | 0.009 | 2 | 0.855418891 |
| 2 | -0.094 | 0.136 | 2 | 0.145 | 0.032 | 2 | 0.280 | 0.099 | 2 | 0.855650963 |
| 3 | 0.052 | 0.030 | 3 | 0.053 | 0.072 | 3 | 0.001 | 0.014 | 3 | 0.855883036 |
| 4 | 0.005 | 0.045 | 4 | 0.028 | 0.067 | 4 | 0.027 | 0.044 | 4 | 0.856115108 |
| 4 | -0.017 | 0.029 | 4 | 0.072 | 0.035 | 4 | 0.008 | 0.008 | 4 | 0.85634718 |
| 4 | -0.026 | 0.016 | 4 | 0.040 | 0.049 | 4 | 0.139 | 0.046 | 4 | 0.856579253 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 2 | 0.011 | 0.018 | 2 | 0.047 | 0.003 | 2 | 0.005 | 0.005 | 2 | 0.856811325 |
| 4 | 0.035 | 0.025 | 4 | 0.032 | 0.029 | 4 | 0.047 | 0.019 | 4 | 0.857043398 |
| 4 | 0.058 | 0.033 | 4 | 0.060 | 0.023 | 4 | 0.052 | 0.016 | 4 | 0.85727547 |
| 4 | 0.067 | 0.058 | 4 | 0.046 | 0.094 | 4 | 0.072 | 0.076 | 4 | 0.857507542 |
| 4 | 0.052 | 0.048 | 4 | 0.033 | 0.044 | 4 | 0.034 | 0.029 | 4 | 0.857739615 |
| 4 | 0.040 | 0.022 | 4 | 0.020 | 0.051 | 4 | 0.072 | 0.029 | 4 | 0.857971687 |
| 4 | 0.035 | 0.034 | 4 | 0.065 | 0.046 | 4 | 0.076 | 0.051 | 4 | 0.85820376 |
| 3 | 0.042 | 0.017 | 3 | 0.033 | 0.046 | 3 | 0.041 | 0.015 | 3 | 0.858435832 |
| 4 | 0.023 | 0.016 | 4 | 0.026 | 0.034 | 4 | 0.040 | 0.002 | 4 | 0.858667904 |
| 4 | 0.037 | 0.010 | 4 | 0.100 | 0.070 | 4 | 0.038 | 0.060 | 4 | 0.858899977 |
| 4 | 0.044 | 0.022 | 4 | 0.049 | 0.032 | 4 | 0.051 | 0.045 | 4 | 0.859132049 |
| 4 | 0.028 | 0.014 | 4 | 0.074 | 0.032 | 4 | 0.048 | 0.026 | 4 | 0.859364122 |
| 4 | -0.005 | 0.031 | 4 | 0.068 | 0.047 | 4 | 0.069 | 0.031 | 4 | 0.859596194 |
| 2 | 0.026 | 0.001 | 2 | 0.033 | 0.026 | 2 | 0.041 | 0.013 | 2 | 0.859828266 |
| 4 | -0.014 | 0.023 | 4 | 0.056 | 0.021 | 4 | 0.072 | 0.029 | 4 | 0.860060339 |
| 3 | 0.014 | 0.007 | 4 | -0.019 | 0.023 | 4 | 0.004 | 0.032 | 4 | 0.860292411 |
| 4 | -0.013 | 0.035 | 4 | 0.051 | 0.057 | 4 | 0.053 | 0.038 | 4 | 0.860524484 |
| 4 | 0.028 | 0.029 | 4 | -0.007 | 0.039 | 4 | 0.043 | 0.021 | 4 | 0.860756556 |
| 3 | -0.009 | 0.032 | 3 | 0.075 | 0.016 | 3 | 0.036 | 0.015 | 3 | 0.860988628 |
| 4 | 0.017 | 0.033 | 4 | 0.038 | 0.050 | 4 | 0.052 | 0.039 | 4 | 0.861220701 |
| 2 | 0.016 | 0.011 | 2 | 0.010 | 0.034 | 2 | 0.045 | 0.006 | 2 | 0.861452773 |
| 4 | 0.025 | 0.017 | 4 | 0.026 | 0.019 | 4 | 0.097 | 0.039 | 4 | 0.861684846 |
| 4 | 0.052 | 0.032 | 4 | 0.052 | 0.060 | 4 | 0.044 | 0.071 | 4 | 0.861916918 |
| 2 | 0.071 | 0.009 | 2 | 0.106 | 0.036 | 2 | 0.016 | 0.022 | 2 | 0.86214899 |
| 4 | 0.012 | 0.035 | 4 | 0.040 | 0.029 | 4 | -0.024 | 0.016 | 4 | 0.862381063 |
| 4 | 0.021 | 0.031 | 4 | 0.063 | 0.042 | 4 | 0.038 | 0.039 | 4 | 0.862613135 |
| 4 | 0.017 | 0.026 | 4 | 0.072 | 0.028 | 4 | 0.065 | 0.022 | 4 | 0.862845208 |
| 2 | 0.030 | 0.040 | 2 | 0.022 | 0.014 | 2 | 0.034 | 0.032 | 2 | 0.86307728 |
| 4 | 0.035 | 0.030 | 4 | 0.045 | 0.045 | 4 | 0.059 | 0.038 | 4 | 0.863309353 |
| 4 | 0.016 | 0.009 | 4 | 0.028 | 0.023 | 4 | 0.063 | 0.040 | 4 | 0.863541425 |
| 4 | 0.061 | 0.029 | 4 | 0.029 | 0.047 | 4 | 0.062 | 0.035 | 4 | 0.863773497 |
| 3 | 0.018 | 0.008 | 3 | 0.041 | 0.026 | 3 | 0.048 | 0.024 | 3 | 0.86400557 |
| 3 | -0.010 | 0.032 | 4 | 0.030 | 0.025 | 4 | 0.047 | 0.014 | 4 | 0.864237642 |
| 4 | 0.025 | 0.016 | 4 | 0.029 | 0.034 | 4 | 0.045 | 0.029 | 4 | 0.864469715 |
| 4 | 0.090 | 0.024 | 4 | 0.039 | 0.063 | 4 | 0.100 | 0.040 | 4 | 0.864701787 |
| 4 | 0.047 | 0.030 | 4 | 0.050 | 0.028 | 4 | 0.067 | 0.028 | 4 | 0.864933859 |
| 4 | 0.088 | 0.019 | 4 | 0.054 | 0.035 | 4 | 0.016 | 0.018 | 4 | 0.865165932 |
| 4 | 0.091 | 0.086 | 4 | 0.044 | 0.052 | 4 | 0.046 | 0.045 | 4 | 0.865398004 |
| 2 | 0.056 | 0.039 | 2 | 0.021 | 0.022 | 2 | 0.033 | 0.034 | 2 | 0.865630077 |
| 4 | 0.047 | 0.051 | 4 | 0.042 | 0.060 | 4 | 0.018 | 0.043 | 4 | 0.865862149 |
| 3 | 0.011 | 0.009 | 4 | -0.029 | 0.020 | 4 | 0.052 | 0.015 | 4 | 0.866094221 |
| 4 | 0.041 | 0.039 | 4 | 0.057 | 0.027 | 4 | 0.014 | 0.033 | 4 | 0.866326294 |
| 4 | 0.052 | 0.033 | 4 | 0.045 | 0.019 | 4 | 0.045 | 0.007 | 4 | 0.866558366 |
| 4 | 0.020 | 0.019 | 4 | 0.047 | 0.012 | 4 | 0.023 | 0.007 | 4 | 0.866790439 |
| 4 | 0.053 | 0.019 | 4 | 0.007 | 0.039 | 4 | 0.019 | 0.036 | 4 | 0.867022511 |
| 3 | 0.029 | 0.014 | 3 | 0.050 | 0.022 | 3 | 0.064 | 0.038 | 3 | 0.867254583 |
| | 0.092 | 0.041 | 2 | 0.157 | 0.002 | 2 | -0.137 | 0.016 | 2 | 0.867486656 |
| 2 | 0.112 | 0.057 | 4 | -0.126 | 0.048 | 4 | 0.002 | 0.025 | 4 | 0.867718728 |
| 3 | 0.010 | 0.027 | 4 | 0.044 | 0.029 | 4 | 0.081 | 0.006 | 4 | 0.867950801 |
| 4 | 0.063 | 0.015 | 4 | 0.001 | 0.044 | 4 | 0.057 | 0.027 | 4 | 0.868182873 |
| 4 | 0.011 | 0.028 | 4 | 0.008 | 0.033 | 4 | 0.065 | 0.117 | 4 | 0.868414945 |
| 4 | -0.003 | 0.032 | 4 | 0.006 | 0.049 | 4 | 0.036 | 0.054 | 4 | 0.868647018 |

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|---|---|---|---|---|---|---|---|---|---|---|
| 4 | 0.049 | 0.016 | 4 | 0.014 | 0.028 | 4 | 0.063 | 0.010 | 4 | 0.86887909 |
| 4 | 0.033 | 0.007 | 4 | 0.025 | 0.034 | 4 | 0.033 | 0.011 | 4 | 0.869111163 |
| 4 | 0.038 | 0.034 | 4 | 0.043 | 0.028 | 4 | 0.026 | 0.026 | 4 | 0.869343235 |
| 4 | 0.046 | 0.025 | 4 | 0.047 | 0.077 | 4 | -0.008 | 0.034 | 4 | 0.869575307 |
| 4 | 0.007 | 0.012 | 4 | 0.022 | 0.087 | 4 | 0.018 | 0.079 | 4 | 0.86980738 |
| 4 | 0.032 | 0.009 | 4 | 0.044 | 0.028 | 4 | 0.058 | 0.014 | 4 | 0.870039452 |
| 4 | 0.062 | 0.026 | 4 | 0.047 | 0.040 | 4 | 0.038 | 0.029 | 4 | 0.870271525 |
| | -0.031 | 0.008 | 2 | -0.084 | 0.005 | 2 | 0.230 | 0.047 | 2 | 0.870503597 |
| 4 | 0.046 | 0.033 | 4 | 0.057 | 0.011 | 4 | 0.021 | 0.022 | 4 | 0.87073567 |
| 4 | 0.062 | 0.015 | 4 | 0.061 | 0.060 | 4 | 0.028 | 0.019 | 4 | 0.870967742 |
| 2 | 0.023 | 0.022 | 2 | 0.073 | 0.026 | 2 | 0.117 | 0.025 | 2 | 0.871199814 |
| 4 | 0.050 | 0.028 | 4 | 0.059 | 0.043 | 4 | 0.034 | 0.023 | 4 | 0.871431887 |
| 3 | 0.013 | 0.051 | 4 | 0.000 | 0.088 | 4 | 0.043 | 0.062 | 4 | 0.871663959 |
| 4 | 0.051 | 0.019 | 4 | 0.007 | 0.025 | 4 | 0.050 | 0.029 | 4 | 0.871896032 |
| 2 | 0.051 | 0.013 | 2 | 0.005 | 0.005 | 2 | 0.074 | 0.001 | 2 | 0.872128104 |
| 4 | 0.077 | 0.009 | 4 | 0.042 | 0.032 | 4 | 0.041 | 0.015 | 4 | 0.872360176 |
| 3 | -0.009 | 0.030 | 3 | 0.089 | 0.035 | 3 | 0.121 | 0.022 | 3 | 0.872592249 |
| 4 | -0.013 | 0.031 | 4 | -0.011 | 0.022 | 4 | 0.074 | 0.024 | 4 | 0.872824321 |
| 4 | 0.016 | 0.011 | 4 | 0.038 | 0.039 | 4 | 0.059 | 0.005 | 4 | 0.873056394 |
| 4 | 0.066 | 0.017 | 4 | 0.063 | 0.062 | 4 | 0.049 | 0.011 | 4 | 0.873288466 |
| 4 | 0.041 | 0.042 | 4 | 0.045 | 0.038 | 4 | 0.063 | 0.035 | 4 | 0.873520538 |
| 4 | 0.028 | 0.042 | 4 | 0.038 | 0.032 | 4 | 0.138 | 0.044 | 4 | 0.873752611 |
| 4 | 0.007 | 0.012 | 4 | 0.028 | 0.039 | 4 | 0.048 | 0.008 | 4 | 0.873984683 |
| 4 | 0.052 | 0.007 | 4 | 0.065 | 0.063 | 4 | 0.002 | 0.021 | 4 | 0.874216756 |
| 4 | 0.053 | 0.057 | 4 | 0.015 | 0.073 | 4 | 0.060 | 0.064 | 4 | 0.874448828 |
| 4 | 0.047 | 0.023 | 4 | 0.003 | 0.048 | 4 | 0.032 | 0.005 | 4 | 0.8746809 |
| 4 | 0.010 | 0.022 | 4 | 0.042 | 0.035 | 4 | 0.054 | 0.011 | 4 | 0.874912973 |
| 3 | 0.017 | 0.056 | 4 | 0.053 | 0.040 | 4 | 0.056 | 0.012 | 4 | 0.875145045 |
| 4 | 0.051 | 0.023 | 4 | 0.047 | 0.054 | 4 | 0.091 | 0.021 | 4 | 0.875377118 |
| 4 | -0.001 | 0.033 | 4 | 0.040 | 0.043 | 4 | 0.071 | 0.043 | 4 | 0.87560919 |
| 4 | 0.069 | 0.042 | 4 | 0.044 | 0.062 | 4 | 0.020 | 0.056 | 4 | 0.875841262 |
| 4 | 0.035 | 0.024 | 4 | 0.017 | 0.036 | 4 | 0.038 | 0.039 | 4 | 0.876073335 |
| 2 | -0.015 | 0.015 | 2 | 0.063 | 0.050 | 2 | 0.144 | 0.018 | 2 | 0.876305407 |
| | -0.040 | 0.002 | 2 | -0.003 | 0.013 | 2 | 0.163 | 0.037 | 2 | 0.87653748 |
| 2 | 0.034 | 0.029 | 2 | 0.047 | 0.031 | 2 | 0.044 | 0.003 | 2 | 0.876769552 |
| 4 | 0.043 | 0.027 | 4 | 0.027 | 0.030 | 4 | 0.051 | 0.031 | 4 | 0.877001625 |
| 4 | 0.107 | 0.027 | 4 | 0.002 | 0.032 | 4 | 0.068 | 0.009 | 4 | 0.877233697 |
| 2 | 0.033 | 0.013 | 4 | 0.020 | 0.050 | 4 | 0.064 | 0.025 | 4 | 0.877465769 |
| 2 | -0.003 | 0.012 | 2 | 0.065 | 0.054 | 2 | 0.043 | 0.017 | 2 | 0.877697842 |
| 4 | -0.009 | 0.019 | 4 | 0.087 | 0.047 | 4 | 0.103 | 0.044 | 4 | 0.877929914 |
| 4 | -0.007 | 0.019 | 4 | 0.072 | 0.065 | 4 | 0.106 | 0.057 | 4 | 0.878161987 |
| | -0.052 | 0.020 | 4 | 0.085 | 0.059 | 4 | 0.089 | 0.079 | 4 | 0.878394059 |
| 4 | 0.062 | 0.036 | 4 | 0.076 | 0.049 | 4 | 0.021 | 0.029 | 4 | 0.878626131 |
| 4 | 0.039 | 0.031 | 4 | 0.045 | 0.015 | 4 | 0.029 | 0.018 | 4 | 0.878858204 |
| 4 | 0.045 | 0.028 | 4 | 0.057 | 0.033 | 4 | 0.041 | 0.037 | 4 | 0.879090276 |
| 4 | -0.008 | 0.069 | 4 | 0.022 | 0.114 | 4 | 0.035 | 0.073 | 4 | 0.879322349 |
| 4 | 0.037 | 0.030 | 4 | 0.064 | 0.038 | 4 | 0.055 | 0.014 | 4 | 0.879554421 |
| 4 | 0.042 | 0.024 | 4 | 0.074 | 0.040 | 4 | 0.006 | 0.017 | 4 | 0.879786493 |
| 4 | 0.046 | 0.026 | 4 | 0.035 | 0.052 | 4 | 0.058 | 0.036 | 4 | 0.880018566 |
| 4 | 0.041 | 0.036 | 4 | 0.047 | 0.041 | 4 | 0.073 | 0.021 | 4 | 0.880250638 |
| 4 | 0.031 | 0.045 | 4 | 0.042 | 0.036 | 4 | 0.035 | 0.041 | 4 | 0.880482711 |
| 3 | 0.033 | 0.013 | 4 | 0.055 | 0.026 | 4 | 0.047 | 0.019 | 4 | 0.880714783 |

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|---|---|---|---|---|---|---|---|---|---|---|
| 4 | 0.076 | 0.018 | 4 | -0.026 | 0.034 | 4 | 0.009 | 0.019 | 4 | 0.880946855 |
| 4 | 0.016 | 0.008 | 4 | 0.059 | 0.030 | 4 | 0.019 | 0.034 | 4 | 0.881178928 |
| 2 | 0.111 | 0.033 | 2 | 0.026 | 0.048 | 2 | 0.047 | 0.016 | 2 | 0.881411 |
| 4 | -0.010 | 0.037 | 4 | 0.067 | 0.044 | 4 | 0.026 | 0.062 | 4 | 0.881643073 |
| 4 | 0.093 | 0.034 | 4 | 0.015 | 0.050 | 4 | 0.052 | 0.039 | 4 | 0.881875145 |
| 3 | 0.099 | 0.007 | 2 | 0.044 | 0.043 | 2 | 0.053 | 0.020 | 2 | 0.882107217 |
| 4 | 0.030 | 0.018 | 4 | 0.070 | 0.066 | 4 | 0.093 | 0.022 | 4 | 0.88233929 |
| 4 | 0.060 | 0.082 | 4 | 0.079 | 0.067 | 4 | 0.037 | 0.080 | 4 | 0.882571362 |
| 3 | 0.088 | 0.012 | 4 | 0.038 | 0.043 | 4 | 0.035 | 0.037 | 4 | 0.882803435 |
| 4 | 0.053 | 0.027 | 4 | -0.002 | 0.062 | 4 | 0.045 | 0.034 | 4 | 0.883035507 |
| 4 | 0.053 | 0.021 | 4 | 0.094 | 0.048 | 4 | 0.049 | 0.033 | 4 | 0.883267579 |
| 2 | 0.038 | 0.037 | 2 | 0.023 | 0.004 | 2 | 0.035 | 0.008 | 2 | 0.883499652 |
| 4 | 0.034 | 0.008 | 4 | 0.027 | 0.045 | 4 | 0.065 | 0.007 | 4 | 0.883731724 |
| 3 | 0.069 | 0.043 | 3 | -0.060 | 0.056 | 3 | 0.171 | 0.087 | 3 | 0.883963797 |
| 4 | 0.055 | 0.023 | 4 | 0.050 | 0.037 | 4 | 0.060 | 0.031 | 4 | 0.884195869 |
| 4 | 0.012 | 0.009 | 4 | 0.052 | 0.039 | 4 | 0.030 | 0.018 | 4 | 0.884427942 |
| 4 | 0.012 | 0.003 | 4 | 0.046 | 0.029 | 4 | 0.128 | 0.021 | 4 | 0.884660014 |
| 4 | 0.021 | 0.026 | 4 | 0.055 | 0.059 | 4 | 0.020 | 0.039 | 4 | 0.884892086 |
| 4 | -0.031 | 0.042 | 4 | -0.058 | 0.047 | 4 | 0.106 | 0.028 | 4 | 0.885124159 |
| 4 | 0.056 | 0.006 | 4 | 0.013 | 0.029 | 4 | 0.015 | 0.015 | 4 | 0.885356231 |
| 2 | 0.046 | 0.018 | 2 | 0.060 | 0.034 | 2 | 0.047 | 0.001 | 2 | 0.885588304 |
| 4 | 0.031 | 0.037 | 4 | 0.063 | 0.088 | 4 | 0.014 | 0.159 | 4 | 0.885820376 |
| 4 | 0.035 | 0.028 | 4 | 0.034 | 0.050 | 4 | 0.034 | 0.028 | 4 | 0.886052448 |
| 4 | 0.043 | 0.027 | 4 | 0.035 | 0.062 | 4 | 0.033 | 0.039 | 4 | 0.886284521 |
| 4 | -0.001 | 0.060 | 4 | -0.039 | 0.073 | 4 | 0.060 | 0.036 | 4 | 0.886516593 |
| 3 | 0.021 | 0.006 | 3 | 0.044 | 0.017 | 3 | 0.094 | 0.039 | 3 | 0.886748666 |
| 3 | -0.019 | 0.005 | 4 | 0.053 | 0.023 | 4 | 0.075 | 0.058 | 4 | 0.886980738 |
| 4 | 0.026 | 0.013 | 4 | 0.063 | 0.052 | 4 | 0.062 | 0.026 | 4 | 0.88721281 |
| 4 | 0.047 | 0.017 | 4 | 0.032 | 0.021 | 4 | 0.080 | 0.011 | 4 | 0.887444883 |
| 4 | 0.068 | 0.038 | 4 | 0.031 | 0.072 | 4 | 0.062 | 0.050 | 4 | 0.887676955 |
| 4 | 0.009 | 0.037 | 4 | 0.051 | 0.049 | 4 | 0.029 | 0.035 | 4 | 0.887909028 |
| 2 | 0.036 | 0.029 | 2 | 0.066 | 0.050 | 2 | 0.024 | 0.030 | 2 | 0.8881411 |
| 4 | 0.028 | 0.032 | 4 | 0.098 | 0.045 | 4 | 0.115 | 0.037 | 4 | 0.888373172 |
| 4 | 0.059 | 0.015 | 4 | 0.022 | 0.017 | 4 | 0.031 | 0.014 | 4 | 0.888605245 |
| 3 | 0.031 | 0.051 | 4 | 0.006 | 0.091 | 4 | 0.015 | 0.051 | 4 | 0.888837317 |
| 4 | 0.007 | 0.014 | 4 | 0.049 | 0.050 | 4 | 0.049 | 0.030 | 4 | 0.88906939 |
| 4 | 0.027 | 0.034 | 4 | 0.023 | 0.024 | 4 | 0.062 | 0.014 | 4 | 0.889301462 |
| 3 | 0.028 | 0.019 | 3 | 0.017 | 0.041 | 3 | 0.067 | 0.046 | 3 | 0.889533534 |
| 4 | 0.060 | 0.055 | 4 | 0.059 | 0.057 | 4 | 0.023 | 0.057 | 4 | 0.889765607 |
| 3 | 0.153 | 0.021 | 3 | 0.180 | 0.024 | 3 | -0.069 | 0.018 | 3 | 0.889997679 |
| 4 | 0.038 | 0.031 | 4 | 0.040 | 0.072 | 4 | 0.049 | 0.050 | 4 | 0.890229752 |
| 4 | 0.050 | 0.034 | 4 | 0.052 | 0.043 | 4 | 0.068 | 0.022 | 4 | 0.890461824 |
| 4 | 0.067 | 0.049 | 4 | 0.027 | 0.098 | 4 | 0.025 | 0.072 | 4 | 0.890693896 |
| 3 | 0.028 | 0.001 | 3 | -0.001 | 0.084 | 3 | 0.040 | 0.047 | 3 | 0.890925969 |
| 2 | 0.100 | 0.098 | 2 | 0.036 | 0.046 | 2 | 0.067 | 0.044 | 2 | 0.891158041 |
| 4 | 0.053 | 0.033 | 4 | 0.033 | 0.038 | 4 | 0.079 | 0.053 | 4 | 0.891390114 |
| 4 | 0.106 | 0.060 | 4 | 0.061 | 0.062 | 4 | 0.050 | 0.024 | 4 | 0.891622186 |
| 4 | 0.080 | 0.022 | 4 | -0.006 | 0.046 | 4 | 0.035 | 0.049 | 4 | 0.891854259 |
| 3 | 0.061 | 0.032 | 3 | 0.020 | 0.035 | 3 | 0.008 | 0.017 | 3 | 0.892086331 |
| 2 | 0.122 | 0.044 | 2 | 0.055 | 0.002 | 2 | -0.002 | 0.017 | 2 | 0.892318403 |
| 4 | 0.045 | 0.024 | 4 | 0.045 | 0.042 | 4 | 0.049 | 0.034 | 4 | 0.892550476 |
| 4 | 0.029 | 0.030 | 4 | 0.049 | 0.069 | 4 | 0.019 | 0.040 | 4 | 0.892782548 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 4 | 0.050 | 0.041 | 4 | 0.068 | 0.038 | 4 | 0.058 | 0.017 | 4 | 0.893014621 |
| 2 | 0.039 | 0.040 | 3 | -0.009 | 0.070 | 3 | 0.022 | 0.050 | 3 | 0.893246693 |
| 4 | 0.118 | 0.119 | 4 | 0.018 | 0.056 | 4 | 0.019 | 0.044 | 4 | 0.893478765 |
| 4 | 0.042 | 0.034 | 4 | 0.061 | 0.034 | 4 | 0.054 | 0.015 | 4 | 0.893710838 |
| 4 | 0.055 | 0.032 | 4 | 0.064 | 0.040 | 4 | 0.072 | 0.055 | 4 | 0.89394291 |
| 4 | 0.024 | 0.050 | 4 | 0.057 | 0.091 | 4 | 0.080 | 0.107 | 4 | 0.894174983 |
| 4 | 0.032 | 0.021 | 4 | 0.022 | 0.039 | 4 | 0.098 | 0.020 | 4 | 0.894407055 |
| 2 | -0.044 | 0.038 | 4 | 0.085 | 0.037 | 4 | 0.087 | 0.048 | 4 | 0.894639127 |
| 4 | 0.043 | 0.017 | 4 | 0.054 | 0.042 | 4 | 0.051 | 0.023 | 4 | 0.8948712 |
| 4 | 0.034 | 0.036 | 4 | 0.035 | 0.035 | 4 | 0.070 | 0.016 | 4 | 0.895103272 |
| 4 | 0.088 | 0.028 | 4 | 0.094 | 0.035 | 4 | -0.012 | 0.071 | 4 | 0.895335345 |
| 4 | 0.035 | 0.024 | 4 | 0.053 | 0.019 | 4 | 0.098 | 0.031 | 4 | 0.895567417 |
| 4 | 0.048 | 0.018 | 4 | 0.021 | 0.042 | 4 | 0.047 | 0.032 | 4 | 0.895799489 |
| 4 | 0.023 | 0.045 | 4 | -0.002 | 0.055 | 4 | 0.067 | 0.047 | 4 | 0.896031562 |
| 4 | 0.060 | 0.030 | 4 | 0.075 | 0.039 | 4 | 0.089 | 0.029 | 4 | 0.896263634 |
| 4 | 0.040 | 0.026 | 4 | 0.044 | 0.040 | 4 | 0.069 | 0.030 | 4 | 0.896495707 |
| 4 | 0.049 | 0.036 | 4 | 0.010 | 0.020 | 4 | 0.045 | 0.014 | 4 | 0.896727779 |
| 3 | -0.050 | 0.010 | 3 | 0.039 | 0.115 | 3 | 0.162 | 0.074 | 3 | 0.896959851 |
| | 0.036 | 0.001 | 2 | 0.050 | 0.041 | 2 | 0.058 | 0.050 | 2 | 0.897191924 |
| 4 | 0.070 | 0.024 | 4 | 0.057 | 0.052 | 4 | 0.090 | 0.048 | 4 | 0.897423996 |
| 4 | 0.045 | 0.010 | 4 | -0.163 | 0.035 | 4 | 0.081 | 0.055 | 4 | 0.897656069 |
| 3 | 0.004 | 0.007 | 4 | 0.033 | 0.025 | 4 | 0.060 | 0.019 | 4 | 0.897888141 |
| 4 | 0.055 | 0.024 | 4 | 0.088 | 0.037 | 4 | 0.051 | 0.022 | 4 | 0.898120214 |
| 4 | 0.035 | 0.016 | 4 | 0.043 | 0.047 | 4 | 0.055 | 0.044 | 4 | 0.898352286 |
| 4 | 0.117 | 0.010 | 4 | 0.010 | 0.049 | 4 | -0.003 | 0.020 | 4 | 0.898584358 |
| 2 | 0.050 | 0.015 | 2 | 0.075 | 0.047 | 2 | 0.060 | 0.042 | 2 | 0.898816431 |
| 4 | 0.045 | 0.009 | 4 | 0.067 | 0.030 | 4 | 0.043 | 0.031 | 4 | 0.899048503 |
| 4 | -0.005 | 0.056 | 4 | 0.027 | 0.063 | 4 | 0.134 | 0.036 | 4 | 0.899280576 |
| 4 | 0.066 | 0.015 | 4 | 0.026 | 0.052 | 4 | 0.081 | 0.009 | 4 | 0.899512648 |
| 4 | 0.033 | 0.017 | 4 | 0.060 | 0.003 | 4 | 0.010 | 0.033 | 4 | 0.89974472 |
| 4 | 0.007 | 0.026 | 4 | -0.010 | 0.039 | 4 | 0.098 | 0.028 | 4 | 0.899976793 |
| 4 | 0.044 | 0.022 | 4 | 0.102 | 0.051 | 4 | 0.012 | 0.019 | 4 | 0.900208865 |
| 4 | 0.047 | 0.020 | 4 | 0.062 | 0.034 | 4 | 0.085 | 0.022 | 4 | 0.900440938 |
| 4 | 0.053 | 0.032 | 4 | 0.028 | 0.031 | 4 | 0.091 | 0.036 | 4 | 0.90067301 |
| 4 | 0.015 | 0.046 | 4 | 0.038 | 0.035 | 4 | 0.035 | 0.023 | 4 | 0.900905082 |
| 4 | 0.070 | 0.034 | 4 | 0.083 | 0.045 | 4 | 0.047 | 0.041 | 4 | 0.901137155 |
| 4 | 0.059 | 0.014 | 4 | 0.065 | 0.048 | 4 | 0.094 | 0.024 | 4 | 0.901369227 |
| 4 | 0.073 | 0.033 | 4 | 0.014 | 0.064 | 4 | 0.053 | 0.040 | 4 | 0.9016013 |
| 4 | 0.073 | 0.040 | 4 | 0.072 | 0.077 | 4 | 0.058 | 0.048 | 4 | 0.901833372 |
| 4 | 0.065 | 0.021 | 4 | 0.070 | 0.055 | 4 | 0.057 | 0.037 | 4 | 0.902065444 |
| 2 | -0.034 | 0.036 | 3 | 0.035 | 0.024 | 3 | 0.083 | 0.025 | 3 | 0.902297517 |
| 4 | 0.038 | 0.025 | 4 | 0.054 | 0.040 | 4 | 0.065 | 0.019 | 4 | 0.902529589 |
| 4 | 0.046 | 0.025 | 4 | 0.007 | 0.043 | 4 | 0.020 | 0.027 | 4 | 0.902761662 |
| 2 | 0.044 | 0.020 | 4 | 0.084 | 0.043 | 4 | 0.047 | 0.012 | 4 | 0.902993734 |
| 3 | 0.047 | 0.087 | 4 | 0.069 | 0.068 | 4 | -0.022 | 0.235 | 4 | 0.903225806 |
| 4 | 0.077 | 0.024 | 4 | 0.048 | 0.063 | 4 | 0.058 | 0.025 | 4 | 0.903457879 |
| 4 | 0.029 | 0.040 | 4 | 0.027 | 0.036 | 4 | 0.064 | 0.035 | 4 | 0.903689951 |
| 4 | 0.034 | 0.036 | 4 | 0.046 | 0.022 | 4 | 0.074 | 0.032 | 4 | 0.903922024 |
| 3 | 0.126 | 0.037 | 3 | 0.117 | 0.049 | 3 | 0.108 | 0.111 | 3 | 0.904154096 |
| 4 | 0.025 | 0.006 | 4 | 0.093 | 0.018 | 4 | 0.033 | 0.019 | 4 | 0.904386168 |
| 2 | 0.042 | 0.001 | 2 | 0.054 | 0.010 | 2 | 0.053 | 0.029 | 2 | 0.904618241 |
| 4 | 0.085 | 0.014 | 4 | 0.054 | 0.032 | 4 | 0.072 | 0.039 | 4 | 0.904850313 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 4 | 0.074 | 0.029 | 4 | 0.055 | 0.042 | 4 | 0.105 | 0.033 | 4 | 0.905082386 |
| 4 | 0.055 | 0.037 | 4 | 0.032 | 0.054 | 4 | 0.068 | 0.045 | 4 | 0.905314458 |
| 4 | 0.096 | 0.014 | 4 | 0.077 | 0.032 | 4 | 0.039 | 0.013 | 4 | 0.905546531 |
| 4 | 0.095 | 0.036 | 4 | 0.071 | 0.052 | 4 | 0.034 | 0.034 | 4 | 0.905778603 |
| 3 | 0.016 | 0.044 | 3 | 0.088 | 0.038 | 3 | 0.001 | 0.028 | 3 | 0.906010675 |
| 4 | 0.044 | 0.032 | 4 | 0.104 | 0.047 | 4 | 0.059 | 0.028 | 4 | 0.906242748 |
| | -0.004 | 0.034 | 3 | 0.069 | 0.048 | 3 | 0.098 | 0.089 | 3 | 0.90647482 |
| | -0.033 | 0.003 | 2 | 0.135 | 0.081 | 2 | 0.062 | 0.054 | 2 | 0.906706893 |
| 4 | 0.070 | 0.047 | 4 | 0.088 | 0.048 | 4 | 0.179 | 0.033 | 4 | 0.906938965 |
| 4 | 0.033 | 0.057 | 4 | 0.090 | 0.049 | 4 | 0.021 | 0.040 | 4 | 0.907171037 |
| 3 | 0.077 | 0.062 | 3 | 0.058 | 0.019 | 3 | 0.094 | 0.012 | 3 | 0.90740311 |
| 3 | 0.067 | 0.049 | 3 | 0.059 | 0.081 | 3 | 0.105 | 0.088 | 3 | 0.907635182 |
| 3 | 0.052 | 0.020 | 3 | 0.040 | 0.016 | 3 | 0.022 | 0.026 | 3 | 0.907867255 |
| | -0.021 | 0.088 | 2 | 0.066 | 0.015 | 2 | 0.120 | 0.046 | 2 | 0.908099327 |
| 4 | 0.086 | 0.031 | 4 | 0.066 | 0.077 | 4 | 0.057 | 0.038 | 4 | 0.908331399 |
| 4 | 0.045 | 0.016 | 4 | 0.086 | 0.034 | 4 | 0.059 | 0.016 | 4 | 0.908563472 |
| 2 | 0.099 | 0.019 | 2 | 0.050 | 0.023 | 2 | 0.074 | 0.035 | 2 | 0.908795544 |
| 4 | 0.032 | 0.016 | 4 | 0.088 | 0.015 | 4 | 0.106 | 0.017 | 4 | 0.909027617 |
| 4 | 0.049 | 0.012 | 4 | 0.060 | 0.035 | 4 | 0.073 | 0.012 | 4 | 0.909259689 |
| 4 | 0.051 | 0.051 | 4 | 0.086 | 0.049 | 4 | 0.063 | 0.033 | 4 | 0.909491761 |
| 4 | 0.047 | 0.022 | 4 | 0.064 | 0.021 | 4 | 0.038 | 0.020 | 4 | 0.909723834 |
| 4 | 0.032 | 0.015 | 4 | 0.064 | 0.034 | 4 | 0.042 | 0.014 | 4 | 0.909955906 |
| 3 | 0.093 | 0.029 | 3 | 0.056 | 0.012 | 3 | 0.065 | 0.011 | 3 | 0.910187979 |
| 3 | -0.023 | 0.031 | 4 | 0.048 | 0.022 | 4 | 0.108 | 0.031 | 4 | 0.910420051 |
| 4 | 0.044 | 0.021 | 4 | 0.068 | 0.051 | 4 | 0.110 | 0.042 | 4 | 0.910652123 |
| 2 | 0.153 | 0.104 | 3 | 0.015 | 0.032 | 3 | 0.123 | 0.046 | 3 | 0.910884196 |
| 4 | 0.047 | 0.017 | 4 | 0.064 | 0.034 | 4 | 0.033 | 0.012 | 4 | 0.911116268 |
| 4 | 0.089 | 0.033 | 4 | 0.107 | 0.039 | 4 | 0.099 | 0.029 | 4 | 0.911348341 |
| 4 | 0.031 | 0.032 | 4 | 0.058 | 0.059 | 4 | 0.110 | 0.047 | 4 | 0.911580413 |
| 2 | 0.085 | 0.006 | 2 | 0.024 | 0.008 | 2 | 0.053 | 0.009 | 2 | 0.911812485 |
| 3 | 0.049 | 0.026 | 4 | 0.062 | 0.037 | 4 | 0.099 | 0.041 | 4 | 0.912044558 |
| 4 | 0.106 | 0.034 | 4 | 0.126 | 0.040 | 4 | 0.038 | 0.151 | 4 | 0.91227663 |
| 2 | 0.071 | 0.035 | 4 | 0.114 | 0.042 | 4 | -0.037 | 0.143 | 4 | 0.912508703 |
| 3 | 0.175 | 0.032 | 3 | 0.065 | 0.037 | 3 | 0.129 | 0.049 | 3 | 0.912740775 |
| | 0.055 | 0.003 | 2 | 0.050 | 0.118 | 2 | 0.073 | 0.077 | 2 | 0.912972848 |
| 4 | 0.052 | 0.021 | 4 | 0.075 | 0.042 | 4 | 0.095 | 0.017 | 4 | 0.91320492 |
| 4 | 0.089 | 0.048 | 4 | 0.039 | 0.071 | 4 | 0.091 | 0.049 | 4 | 0.913436992 |
| 2 | 0.008 | 0.026 | 2 | 0.001 | 0.031 | 2 | 0.072 | 0.034 | 2 | 0.913669065 |
| 3 | 0.046 | 0.029 | 3 | 0.045 | 0.044 | 3 | 0.200 | 0.052 | 3 | 0.913901137 |
| 3 | 0.048 | 0.046 | 4 | 0.048 | 0.067 | 4 | -0.046 | 0.131 | 4 | 0.91413321 |
| 4 | 0.066 | 0.028 | 4 | 0.079 | 0.037 | 4 | -0.018 | 0.130 | 4 | 0.914365282 |
| 4 | 0.101 | 0.013 | 4 | 0.024 | 0.035 | 4 | 0.003 | 0.020 | 4 | 0.914597354 |
| 2 | 0.096 | 0.013 | 2 | 0.061 | 0.047 | 2 | 0.080 | 0.004 | 2 | 0.914829427 |
| 4 | 0.083 | 0.020 | 4 | 0.087 | 0.041 | 4 | -0.051 | 0.028 | 4 | 0.915061499 |
| 4 | 0.015 | 0.078 | 4 | 0.063 | 0.059 | 4 | 0.046 | 0.056 | 4 | 0.915293572 |
| 2 | 0.055 | 0.001 | 2 | 0.121 | 0.012 | 2 | 0.071 | 0.024 | 2 | 0.915525644 |
| 4 | 0.057 | 0.011 | 4 | 0.088 | 0.015 | 4 | 0.076 | 0.028 | 4 | 0.915757716 |
| 2 | 0.092 | 0.034 | 2 | 0.064 | 0.047 | 2 | 0.079 | 0.051 | 2 | 0.915989789 |
| 4 | 0.036 | 0.029 | 4 | 0.082 | 0.049 | 4 | 0.094 | 0.016 | 4 | 0.916221861 |
| 2 | 0.007 | 0.023 | 2 | 0.068 | 0.005 | 2 | 0.078 | 0.004 | 2 | 0.916453934 |
| 3 | 0.056 | 0.061 | 4 | 0.060 | 0.018 | 4 | 0.087 | 0.105 | 4 | 0.916686006 |
| 4 | 0.012 | 0.007 | 4 | 0.054 | 0.049 | 4 | 0.123 | 0.043 | 4 | 0.916918078 |

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|---|---|---|---|---|---|---|---|---|---|---|
| 4 | 0.067 | 0.025 | 4 | 0.026 | 0.042 | 4 | 0.083 | 0.047 | 4 | 0.917150151 |
| 4 | 0.100 | 0.061 | 4 | 0.052 | 0.056 | 4 | 0.071 | 0.043 | 4 | 0.917382223 |
| 2 | 0.080 | 0.054 | 2 | 0.113 | 0.016 | 2 | 0.146 | 0.017 | 2 | 0.917614296 |
| 4 | 0.042 | 0.041 | 4 | 0.050 | 0.030 | 4 | 0.126 | 0.019 | 4 | 0.917846368 |
| 4 | 0.028 | 0.034 | 4 | 0.046 | 0.060 | 4 | 0.067 | 0.024 | 4 | 0.91807844 |
| 3 | 0.046 | 0.050 | 4 | -0.024 | 0.053 | 4 | 0.039 | 0.030 | 4 | 0.918310513 |
| 2 | 0.078 | 0.060 | 2 | 0.069 | 0.042 | 2 | 0.151 | 0.020 | 2 | 0.918542585 |
| 3 | -0.002 | 0.038 | 4 | 0.051 | 0.025 | 4 | 0.150 | 0.039 | 4 | 0.918774658 |
| 2 | 0.008 | 0.005 | 2 | 0.123 | 0.017 | 2 | 0.208 | 0.011 | 2 | 0.91900673 |
| 4 | 0.044 | 0.046 | 4 | 0.071 | 0.033 | 4 | 0.120 | 0.029 | 4 | 0.919238803 |
| 4 | 0.061 | 0.061 | 4 | 0.069 | 0.084 | 4 | 0.080 | 0.067 | 4 | 0.919470875 |
| 3 | 0.096 | 0.077 | 3 | 0.050 | 0.054 | 3 | 0.073 | 0.049 | 3 | 0.919702947 |
| 4 | 0.058 | 0.021 | 4 | 0.144 | 0.048 | 4 | 0.015 | 0.036 | 4 | 0.91993502 |
| 4 | 0.043 | 0.043 | 4 | 0.090 | 0.055 | 4 | 0.164 | 0.057 | 4 | 0.920167092 |
| 4 | 0.069 | 0.022 | 4 | 0.101 | 0.065 | 4 | 0.096 | 0.037 | 4 | 0.920399165 |
| 4 | 0.077 | 0.018 | 4 | 0.083 | 0.054 | 4 | 0.070 | 0.017 | 4 | 0.920631237 |
| 4 | 0.037 | 0.018 | 4 | 0.032 | 0.042 | 4 | 0.058 | 0.007 | 4 | 0.920863309 |
| 2 | 0.088 | 0.012 | 2 | 0.055 | 0.012 | 2 | 0.069 | 0.021 | 2 | 0.921095382 |
| 4 | 0.033 | 0.037 | 4 | 0.160 | 0.079 | 4 | 0.004 | 0.037 | 4 | 0.921327454 |
| 2 | 0.049 | 0.021 | 3 | 0.076 | 0.083 | 3 | 0.070 | 0.008 | 3 | 0.921559527 |
| 4 | 0.085 | 0.008 | 4 | 0.087 | 0.036 | 4 | 0.099 | 0.047 | 4 | 0.921791599 |
| 4 | 0.080 | 0.024 | 4 | 0.022 | 0.064 | 4 | 0.077 | 0.024 | 4 | 0.922023671 |
| 4 | 0.081 | 0.019 | 4 | 0.080 | 0.038 | 4 | 0.096 | 0.010 | 4 | 0.922255744 |
| 4 | 0.009 | 0.028 | 4 | 0.031 | 0.059 | 4 | 0.124 | 0.027 | 4 | 0.922487816 |
| 4 | 0.048 | 0.068 | 4 | 0.061 | 0.068 | 4 | 0.093 | 0.037 | 4 | 0.922719889 |
| 4 | 0.038 | 0.048 | 4 | 0.051 | 0.063 | 4 | 0.066 | 0.068 | 4 | 0.922951961 |
| 3 | 0.009 | 0.055 | 3 | 0.091 | 0.043 | 3 | 0.095 | 0.013 | 3 | 0.923184033 |
| 3 | 0.061 | 0.042 | 3 | 0.079 | 0.042 | 3 | 0.106 | 0.063 | 3 | 0.923416106 |
| 4 | 0.085 | 0.038 | 4 | 0.084 | 0.035 | 4 | 0.050 | 0.024 | 4 | 0.923648178 |
| | 0.073 | 0.068 | 4 | 0.028 | 0.033 | 4 | 0.103 | 0.033 | 4 | 0.923880251 |
| 2 | 0.019 | 0.002 | 2 | 0.072 | 0.031 | 2 | 0.090 | 0.007 | 2 | 0.924112323 |
| 2 | 0.073 | 0.009 | 2 | 0.074 | 0.040 | 2 | 0.081 | 0.005 | 2 | 0.924344395 |
| 4 | 0.096 | 0.024 | 4 | 0.068 | 0.064 | 4 | 0.047 | 0.035 | 4 | 0.924576468 |
| 4 | 0.045 | 0.038 | 4 | 0.110 | 0.054 | 4 | 0.071 | 0.040 | 4 | 0.92480854 |
| 3 | 0.101 | 0.056 | 3 | 0.044 | 0.040 | 3 | 0.074 | 0.038 | 3 | 0.925040613 |
| 4 | 0.040 | 0.019 | 4 | 0.059 | 0.016 | 4 | 0.097 | 0.018 | 4 | 0.925272685 |
| 4 | 0.127 | 0.060 | 4 | 0.054 | 0.037 | 4 | 0.061 | 0.051 | 4 | 0.925504757 |
| 2 | 0.056 | 0.025 | 3 | 0.053 | 0.019 | 3 | 0.062 | 0.025 | 3 | 0.92573683 |
| 4 | 0.049 | 0.025 | 4 | 0.084 | 0.022 | 4 | 0.095 | 0.017 | 4 | 0.925968902 |
| 4 | 0.057 | 0.028 | 4 | 0.050 | 0.050 | 4 | 0.067 | 0.027 | 4 | 0.926200975 |
| 4 | 0.049 | 0.030 | 4 | 0.099 | 0.034 | 4 | 0.099 | 0.015 | 4 | 0.926433047 |
| 2 | 0.060 | 0.026 | 2 | 0.142 | 0.028 | 2 | 0.075 | 0.035 | 2 | 0.92666512 |
| 2 | 0.064 | 0.003 | 2 | 0.070 | 0.023 | 2 | 0.185 | 0.008 | 2 | 0.926897192 |
| 2 | 0.044 | 0.023 | 4 | 0.124 | 0.017 | 4 | 0.121 | 0.021 | 4 | 0.927129264 |
| | 0.129 | 0.016 | 2 | -0.040 | 0.057 | 2 | 0.128 | 0.029 | 2 | 0.927361337 |
| 3 | 0.043 | 0.011 | 4 | 0.080 | 0.051 | 4 | 0.167 | 0.080 | 4 | 0.927593409 |
| 4 | 0.038 | 0.016 | 4 | 0.090 | 0.038 | 4 | 0.119 | 0.021 | 4 | 0.927825482 |
| 3 | 0.086 | 0.023 | 3 | 0.275 | 0.015 | 3 | 0.134 | 0.010 | 3 | 0.928057554 |
| 3 | 0.057 | 0.044 | 4 | 0.105 | 0.069 | 4 | 0.095 | 0.059 | 4 | 0.928289626 |
| 4 | 0.049 | 0.018 | 4 | 0.043 | 0.034 | 4 | 0.084 | 0.010 | 4 | 0.928521699 |
| 4 | 0.073 | 0.044 | 4 | 0.087 | 0.050 | 4 | 0.109 | 0.026 | 4 | 0.928753771 |
| 4 | 0.091 | 0.020 | 4 | 0.054 | 0.026 | 4 | 0.089 | 0.017 | 4 | 0.928985844 |

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|---|---|---|---|---|---|---|---|---|---|---|
| 3 | -0.008 | 0.081 | 3 | 0.046 | 0.088 | 3 | 0.159 | 0.095 | 3 | 0.929217916 |
| 3 | 0.107 | 0.046 | 4 | 0.051 | 0.053 | 4 | 0.158 | 0.044 | 4 | 0.929449988 |
| | -0.017 | 0.066 | 3 | 0.092 | 0.026 | 3 | 0.155 | 0.061 | 3 | 0.929682061 |
| 2 | -0.019 | 0.059 | 3 | 0.025 | 0.098 | 3 | 0.111 | 0.066 | 3 | 0.929914133 |
| 4 | 0.060 | 0.018 | 4 | 0.093 | 0.027 | 4 | 0.154 | 0.022 | 4 | 0.930146206 |
| 2 | 0.055 | 0.002 | 2 | 0.057 | 0.014 | 2 | 0.095 | 0.010 | 2 | 0.930378278 |
| 4 | 0.021 | 0.013 | 4 | 0.087 | 0.037 | 4 | 0.124 | 0.015 | 4 | 0.93061035 |
| 4 | 0.067 | 0.022 | 4 | 0.081 | 0.034 | 4 | 0.150 | 0.018 | 4 | 0.930842423 |
| 4 | 0.057 | 0.013 | 4 | 0.092 | 0.038 | 4 | 0.147 | 0.046 | 4 | 0.931074495 |
| 2 | 0.102 | 0.035 | 4 | 0.008 | 0.049 | 4 | 0.046 | 0.020 | 4 | 0.931306568 |
| 4 | 0.020 | 0.017 | 4 | 0.091 | 0.054 | 4 | 0.129 | 0.016 | 4 | 0.93153864 |
| | -0.033 | 0.010 | 2 | 0.069 | 0.001 | 2 | 0.204 | 0.009 | 2 | 0.931770712 |
| | 0.077 | 0.013 | 2 | 0.050 | 0.062 | 2 | 0.113 | 0.010 | 2 | 0.932002785 |
| 4 | 0.107 | 0.032 | 4 | 0.065 | 0.044 | 4 | 0.080 | 0.039 | 4 | 0.932234857 |
| 3 | 0.044 | 0.038 | 4 | 0.094 | 0.052 | 4 | 0.129 | 0.074 | 4 | 0.93246693 |
| 4 | 0.078 | 0.014 | 4 | 0.191 | 0.036 | 4 | 0.054 | 0.028 | 4 | 0.932699002 |
| 4 | 0.032 | 0.012 | 4 | 0.069 | 0.056 | 4 | 0.124 | 0.063 | 4 | 0.932931074 |
| 3 | -0.084 | 0.017 | 3 | 0.062 | 0.037 | 3 | 0.280 | 0.051 | 3 | 0.933163147 |
| 4 | -0.009 | 0.014 | 4 | 0.155 | 0.190 | 4 | 0.123 | 0.013 | 4 | 0.933395219 |
| 4 | 0.084 | 0.062 | 4 | 0.141 | 0.028 | 4 | 0.127 | 0.021 | 4 | 0.933627292 |
| 2 | 0.058 | 0.020 | 2 | 0.055 | 0.029 | 2 | 0.057 | 0.001 | 2 | 0.933859364 |
| | -0.146 | 0.037 | 2 | 0.158 | 0.021 | 2 | 0.233 | 0.037 | 2 | 0.934091437 |
| 4 | 0.048 | 0.022 | 4 | 0.077 | 0.064 | 4 | 0.103 | 0.047 | 4 | 0.934323509 |
| | 0.059 | 0.005 | 2 | 0.035 | 0.006 | 2 | 0.153 | 0.033 | 2 | 0.934555581 |
| | 0.024 | 0.005 | 2 | 0.103 | 0.009 | 2 | 0.121 | 0.022 | 2 | 0.934787654 |
| 3 | 0.099 | 0.046 | 4 | -0.036 | 0.048 | 4 | 0.060 | 0.055 | 4 | 0.935019726 |
| 4 | 0.071 | 0.021 | 4 | 0.076 | 0.038 | 4 | 0.157 | 0.061 | 4 | 0.935251799 |
| 2 | -0.082 | 0.057 | 3 | 0.114 | 0.047 | 3 | 0.247 | 0.025 | 3 | 0.935483871 |
| 3 | 0.036 | 0.019 | 3 | 0.100 | 0.037 | 3 | 0.060 | 0.067 | 3 | 0.935715943 |
| 2 | 0.079 | 0.005 | 2 | 0.051 | 0.040 | 2 | 0.140 | 0.055 | 2 | 0.935948016 |
| 3 | -0.004 | 0.031 | 3 | 0.149 | 0.021 | 3 | 0.177 | 0.010 | 3 | 0.936180088 |
| 4 | -0.015 | 0.017 | 4 | 0.133 | 0.017 | 4 | 0.249 | 0.028 | 4 | 0.936412161 |
| 4 | 0.103 | 0.051 | 4 | 0.068 | 0.046 | 4 | 0.065 | 0.065 | 4 | 0.936644233 |
| 4 | 0.127 | 0.038 | 4 | 0.111 | 0.038 | 4 | 0.102 | 0.035 | 4 | 0.936876305 |
| 2 | 0.072 | 0.082 | 2 | 0.121 | 0.064 | 2 | 0.167 | 0.036 | 2 | 0.937108378 |
| 4 | 0.016 | 0.024 | 4 | 0.127 | 0.022 | 4 | 0.072 | 0.017 | 4 | 0.93734045 |
| 3 | 0.044 | 0.009 | 3 | 0.117 | 0.019 | 3 | 0.082 | 0.003 | 3 | 0.937572523 |
| 3 | 0.069 | 0.040 | 4 | 0.096 | 0.055 | 4 | 0.117 | 0.055 | 4 | 0.937804595 |
| 2 | 0.016 | 0.010 | 2 | -0.001 | 0.018 | 2 | 0.161 | 0.020 | 2 | 0.938036667 |
| 4 | 0.101 | 0.062 | 4 | 0.110 | 0.060 | 4 | 0.153 | 0.045 | 4 | 0.93826874 |
| 3 | -0.019 | 0.024 | 4 | 0.064 | 0.059 | 4 | 0.208 | 0.057 | 4 | 0.938500812 |
| 2 | 0.034 | 0.005 | 2 | -0.019 | 0.042 | 2 | 0.205 | 0.016 | 2 | 0.938732885 |
| | -0.025 | 0.023 | 2 | 0.202 | 0.103 | 2 | 0.086 | 0.017 | 2 | 0.938964957 |
| 4 | 0.087 | 0.039 | 4 | 0.105 | 0.041 | 4 | 0.169 | 0.065 | 4 | 0.939197029 |
| 4 | 0.020 | 0.036 | 4 | 0.084 | 0.029 | 4 | 0.157 | 0.033 | 4 | 0.939429102 |
| 4 | 0.018 | 0.016 | 4 | 0.108 | 0.026 | 4 | 0.154 | 0.015 | 4 | 0.939661174 |
| 4 | 0.111 | 0.024 | 4 | 0.093 | 0.027 | 4 | 0.148 | 0.013 | 4 | 0.939893247 |
| 4 | 0.054 | 0.018 | 4 | 0.183 | 0.036 | 4 | 0.082 | 0.047 | 4 | 0.940125319 |
| 3 | 0.081 | 0.067 | 4 | 0.084 | 0.039 | 4 | 0.107 | 0.027 | 4 | 0.940357392 |
| 4 | 0.103 | 0.017 | 4 | 0.096 | 0.024 | 4 | 0.092 | 0.012 | 4 | 0.940589464 |
| 4 | 0.054 | 0.011 | 4 | 0.086 | 0.036 | 4 | 0.109 | 0.029 | 4 | 0.940821536 |
| 3 | 0.107 | 0.008 | 3 | 0.079 | 0.029 | 3 | 0.126 | 0.004 | 3 | 0.941053609 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 2 | 0.027 | 0.009 | 2 | 0.143 | 0.077 | 2 | 0.166 | 0.026 | 2 | 0.941285681 |
| 2 | 0.135 | 0.031 | 2 | 0.121 | 0.048 | 2 | 0.169 | 0.039 | 2 | 0.941517754 |
| 4 | 0.143 | 0.032 | 4 | -0.142 | 0.046 | 4 | 0.187 | 0.028 | 4 | 0.941749826 |
| 3 | 0.080 | 0.007 | 3 | 0.098 | 0.056 | 3 | 0.185 | 0.031 | 3 | 0.941981898 |
| 4 | 0.083 | 0.011 | 4 | 0.081 | 0.027 | 4 | 0.126 | 0.022 | 4 | 0.942213971 |
| 4 | 0.080 | 0.034 | 4 | 0.100 | 0.058 | 4 | 0.145 | 0.047 | 4 | 0.942446043 |
| 2 | 0.031 | 0.017 | 2 | 0.108 | 0.019 | 2 | 0.139 | 0.019 | 2 | 0.942678116 |
| 4 | 0.071 | 0.055 | 4 | 0.017 | 0.028 | 4 | 0.228 | 0.045 | 4 | 0.942910188 |
| 3 | 0.060 | 0.011 | 4 | 0.076 | 0.043 | 4 | 0.159 | 0.021 | 4 | 0.94314226 |
| 4 | 0.098 | 0.026 | 4 | 0.090 | 0.030 | 4 | 0.095 | 0.031 | 4 | 0.943374333 |
| 3 | 0.045 | 0.024 | 3 | 0.074 | 0.017 | 3 | 0.131 | 0.016 | 3 | 0.943606405 |
| 3 | 0.020 | 0.032 | 4 | 0.108 | 0.058 | 4 | 0.208 | 0.039 | 4 | 0.943838478 |
| 3 | -0.039 | 0.013 | 3 | 0.087 | 0.018 | 3 | 0.192 | 0.044 | 3 | 0.94407055 |
| 4 | 0.101 | 0.043 | 4 | 0.065 | 0.042 | 4 | 0.132 | 0.045 | 4 | 0.944302622 |
| 3 | 0.004 | 0.024 | 4 | 0.066 | 0.039 | 4 | 0.114 | 0.021 | 4 | 0.944534695 |
| | 0.054 | 0.021 | 2 | 0.072 | 0.039 | 2 | 0.156 | 0.048 | 2 | 0.944766767 |
| 4 | 0.118 | 0.036 | 4 | 0.019 | 0.038 | 4 | 0.146 | 0.061 | 4 | 0.94499884 |
| 4 | 0.096 | 0.036 | 4 | 0.144 | 0.085 | 4 | 0.182 | 0.055 | 4 | 0.945230912 |
| 4 | 0.074 | 0.023 | 4 | 0.134 | 0.038 | 4 | 0.120 | 0.021 | 4 | 0.945462984 |
| 4 | 0.067 | 0.024 | 4 | 0.071 | 0.033 | 4 | 0.134 | 0.028 | 4 | 0.945695057 |
| 4 | 0.069 | 0.020 | 4 | 0.151 | 0.053 | 4 | 0.112 | 0.036 | 4 | 0.945927129 |
| 4 | 0.127 | 0.042 | 4 | 0.107 | 0.027 | 4 | 0.130 | 0.029 | 4 | 0.946159202 |
| 2 | 0.125 | 0.028 | 4 | 0.118 | 0.036 | 4 | 0.092 | 0.043 | 4 | 0.946391274 |
| 2 | 0.013 | 0.071 | 3 | 0.060 | 0.082 | 3 | 0.170 | 0.085 | 3 | 0.946623346 |
| 3 | 0.129 | 0.037 | 3 | 0.104 | 0.079 | 3 | 0.109 | 0.044 | 3 | 0.946855419 |
| 3 | 0.010 | 0.019 | 4 | 0.120 | 0.033 | 4 | 0.181 | 0.031 | 4 | 0.947087491 |
| 2 | 0.038 | 0.005 | 2 | 0.036 | 0.055 | 2 | 0.086 | 0.015 | 2 | 0.947319564 |
| 4 | 0.117 | 0.011 | 4 | 0.101 | 0.038 | 4 | 0.107 | 0.008 | 4 | 0.947551636 |
| 4 | 0.144 | 0.008 | 4 | 0.107 | 0.026 | 4 | 0.102 | 0.019 | 4 | 0.947783709 |
| 4 | 0.068 | 0.036 | 4 | 0.147 | 0.054 | 4 | 0.131 | 0.042 | 4 | 0.948015781 |
| 2 | 0.151 | 0.022 | 2 | 0.133 | 0.091 | 2 | 0.149 | 0.065 | 2 | 0.948247853 |
| 2 | 0.076 | 0.059 | 3 | 0.270 | 0.101 | 3 | 0.101 | 0.086 | 3 | 0.948479926 |
| 2 | 0.125 | 0.022 | 2 | 0.196 | 0.065 | 2 | -0.058 | 0.024 | 2 | 0.948711998 |
| 2 | 0.120 | 0.010 | 2 | 0.142 | 0.075 | 2 | 0.191 | 0.029 | 2 | 0.948944071 |
| 4 | 0.190 | 0.005 | 4 | 0.044 | 0.040 | 4 | 0.252 | 0.045 | 4 | 0.949176143 |
| 2 | 0.109 | 0.016 | 2 | 0.142 | 0.039 | 2 | 0.123 | 0.003 | 2 | 0.949408215 |
| 4 | 0.050 | 0.018 | 4 | 0.088 | 0.019 | 4 | 0.141 | 0.025 | 4 | 0.949640288 |
| 2 | 0.036 | 0.017 | 2 | 0.149 | 0.029 | 2 | 0.120 | 0.002 | 2 | 0.94987236 |
| 4 | 0.108 | 0.009 | 4 | 0.095 | 0.061 | 4 | 0.104 | 0.035 | 4 | 0.950104433 |
| 4 | 0.081 | 0.019 | 4 | 0.114 | 0.060 | 4 | 0.137 | 0.037 | 4 | 0.950336505 |
| | 0.181 | 0.010 | 2 | 0.099 | 0.019 | 2 | 0.028 | 0.041 | 2 | 0.950568577 |
| 3 | 0.068 | 0.022 | 3 | 0.105 | 0.038 | 3 | 0.170 | 0.011 | 3 | 0.95080065 |
| 2 | -0.052 | 0.016 | 3 | 0.145 | 0.058 | 3 | 0.252 | 0.025 | 3 | 0.951032722 |
| 4 | 0.141 | 0.021 | 4 | 0.095 | 0.053 | 4 | 0.153 | 0.049 | 4 | 0.951264795 |
| 4 | 0.112 | 0.022 | 4 | 0.145 | 0.039 | 4 | 0.135 | 0.030 | 4 | 0.951496867 |
| | 0.022 | 0.022 | 3 | 0.139 | 0.056 | 3 | 0.150 | 0.098 | 3 | 0.951728939 |
| 3 | 0.113 | 0.037 | 4 | 0.187 | 0.067 | 4 | 0.116 | 0.056 | 4 | 0.951961012 |
| 3 | 0.105 | 0.021 | 4 | 0.107 | 0.051 | 4 | 0.168 | 0.029 | 4 | 0.952193084 |
| 2 | 0.045 | 0.029 | 2 | 0.079 | 0.005 | 2 | 0.246 | 0.010 | 2 | 0.952425157 |
| 4 | 0.106 | 0.040 | 4 | 0.197 | 0.074 | 4 | 0.136 | 0.044 | 4 | 0.952657229 |
| 2 | 0.035 | 0.031 | 3 | 0.084 | 0.050 | 3 | 0.111 | 0.016 | 3 | 0.952889301 |
| 4 | 0.059 | 0.044 | 4 | 0.128 | 0.046 | 4 | 0.075 | 0.096 | 4 | 0.953121374 |

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|---|---|---|---|---|---|---|---|---|---|---|
| | 0.009 | 0.017 | 2 | 0.122 | 0.007 | 2 | 0.185 | 0.027 | 2 | 0.953353446 |
| 4 | 0.070 | 0.022 | 4 | 0.119 | 0.029 | 4 | 0.133 | 0.025 | 4 | 0.953585519 |
| 4 | 0.004 | 0.011 | 4 | 0.190 | 0.025 | 4 | 0.167 | 0.016 | 4 | 0.953817591 |
| 4 | 0.032 | 0.072 | 4 | 0.089 | 0.055 | 4 | 0.089 | 0.026 | 4 | 0.954049663 |
| | 0.094 | 0.039 | 4 | 0.102 | 0.031 | 4 | 0.123 | 0.064 | 4 | 0.954281736 |
| | 0.124 | 0.109 | 3 | 0.109 | 0.091 | 3 | 0.090 | 0.070 | 3 | 0.954513808 |
| 3 | 0.017 | 0.035 | 4 | 0.114 | 0.048 | 4 | 0.186 | 0.058 | 4 | 0.954745881 |
| | 0.059 | 0.046 | 2 | 0.111 | 0.157 | 2 | 0.157 | 0.139 | 2 | 0.954977953 |
| | 0.100 | 0.015 | 2 | 0.129 | 0.058 | 2 | 0.100 | 0.012 | 2 | 0.955210026 |
| 2 | 0.063 | 0.039 | 2 | 0.124 | 0.075 | 2 | 0.191 | 0.068 | 2 | 0.955442098 |
| 3 | 0.164 | 0.039 | 3 | 0.107 | 0.031 | 3 | 0.120 | 0.095 | 3 | 0.95567417 |
| 2 | 0.027 | 0.043 | 3 | 0.099 | 0.029 | 3 | 0.166 | 0.069 | 3 | 0.955906243 |
| | 0.109 | 0.074 | 2 | 0.155 | 0.025 | 2 | 0.072 | 0.169 | 2 | 0.956138315 |
| 3 | 0.055 | 0.015 | 3 | 0.138 | 0.054 | 3 | 0.190 | 0.032 | 3 | 0.956370388 |
| 4 | 0.157 | 0.063 | 4 | 0.186 | 0.069 | 4 | 0.058 | 0.104 | 4 | 0.95660246 |
| 2 | 0.064 | 0.023 | 4 | 0.167 | 0.051 | 4 | 0.180 | 0.021 | 4 | 0.956834532 |
| 2 | 0.066 | 0.026 | 3 | 0.145 | 0.020 | 3 | 0.154 | 0.039 | 3 | 0.957066605 |
| 2 | -0.018 | 0.025 | 3 | 0.158 | 0.017 | 3 | 0.180 | 0.043 | 3 | 0.957298677 |
| 3 | 0.086 | 0.021 | 3 | 0.127 | 0.090 | 3 | 0.187 | 0.079 | 3 | 0.95753075 |
| 3 | 0.122 | 0.070 | 4 | 0.067 | 0.102 | 4 | 0.161 | 0.057 | 4 | 0.957762822 |
| 4 | 0.052 | 0.043 | 4 | 0.172 | 0.065 | 4 | 0.219 | 0.067 | 4 | 0.957994894 |
| 4 | 0.093 | 0.011 | 4 | 0.185 | 0.026 | 4 | 0.105 | 0.096 | 4 | 0.958226967 |
| 3 | 0.095 | 0.028 | 4 | 0.144 | 0.030 | 4 | 0.143 | 0.021 | 4 | 0.958459039 |
| 3 | 0.069 | 0.028 | 3 | 0.158 | 0.049 | 3 | 0.138 | 0.013 | 3 | 0.958691112 |
| 4 | 0.101 | 0.027 | 4 | 0.127 | 0.020 | 4 | 0.162 | 0.024 | 4 | 0.958923184 |
| 3 | 0.066 | 0.048 | 4 | 0.188 | 0.040 | 4 | 0.162 | 0.027 | 4 | 0.959155256 |
| | 0.150 | 0.032 | 2 | 0.156 | 0.027 | 2 | 0.053 | 0.067 | 2 | 0.959387329 |
| 2 | 0.193 | 0.027 | 2 | 0.088 | 0.012 | 2 | 0.144 | 0.017 | 2 | 0.959619401 |
| | 0.040 | 0.017 | 2 | 0.120 | 0.050 | 2 | 0.201 | 0.020 | 2 | 0.959851474 |
| 4 | 0.109 | 0.026 | 4 | 0.144 | 0.017 | 4 | 0.206 | 0.011 | 4 | 0.960083546 |
| 3 | 0.102 | 0.035 | 3 | 0.062 | 0.012 | 3 | 0.203 | 0.027 | 3 | 0.960315618 |
| 4 | 0.124 | 0.030 | 4 | 0.049 | 0.030 | 4 | 0.256 | 0.097 | 4 | 0.960547691 |
| 4 | 0.109 | 0.022 | 4 | 0.152 | 0.027 | 4 | 0.132 | 0.009 | 4 | 0.960779763 |
| 2 | 0.089 | 0.023 | 2 | 0.202 | 0.053 | 2 | 0.191 | 0.038 | 2 | 0.961011836 |
| 4 | -0.006 | 0.015 | 4 | 0.168 | 0.040 | 4 | 0.220 | 0.020 | 4 | 0.961243908 |
| 2 | 0.220 | 0.011 | 2 | 0.168 | 0.030 | 2 | 0.191 | 0.011 | 2 | 0.961475981 |
| 4 | 0.074 | 0.021 | 4 | 0.176 | 0.024 | 4 | 0.197 | 0.009 | 4 | 0.961708053 |
| 3 | 0.094 | 0.024 | 4 | 0.129 | 0.022 | 4 | 0.202 | 0.037 | 4 | 0.961940125 |
| 2 | 0.125 | 0.009 | 2 | 0.161 | 0.068 | 2 | 0.142 | 0.022 | 2 | 0.962172198 |
| 4 | 0.056 | 0.007 | 4 | 0.114 | 0.066 | 4 | 0.182 | 0.040 | 4 | 0.96240427 |
| 2 | 0.165 | 0.029 | 2 | 0.118 | 0.003 | 2 | 0.168 | 0.012 | 2 | 0.962636343 |
| 4 | 0.099 | 0.027 | 4 | 0.078 | 0.037 | 4 | 0.207 | 0.041 | 4 | 0.962868415 |
| 2 | 0.142 | 0.030 | 4 | 0.114 | 0.054 | 4 | 0.180 | 0.062 | 4 | 0.963100487 |
| 4 | 0.180 | 0.053 | 4 | 0.152 | 0.050 | 4 | 0.127 | 0.025 | 4 | 0.96333256 |
| 2 | 0.033 | 0.061 | 2 | 0.130 | 0.032 | 2 | 0.130 | 0.017 | 2 | 0.963564632 |
| 4 | 0.112 | 0.028 | 4 | 0.157 | 0.072 | 4 | 0.280 | 0.032 | 4 | 0.963796705 |
| 3 | 0.145 | 0.032 | 3 | 0.205 | 0.036 | 3 | 0.156 | 0.025 | 3 | 0.964028777 |
| 3 | 0.112 | 0.063 | 4 | 0.086 | 0.052 | 4 | 0.176 | 0.052 | 4 | 0.964260849 |
| 4 | 0.077 | 0.034 | 4 | 0.114 | 0.058 | 4 | 0.146 | 0.070 | 4 | 0.964492922 |
| | 0.151 | 0.049 | 2 | 0.085 | 0.038 | 2 | 0.152 | 0.056 | 2 | 0.964724994 |
| 2 | 0.129 | 0.051 | 3 | 0.131 | 0.049 | 3 | 0.213 | 0.053 | 3 | 0.964957067 |
| 4 | 0.109 | 0.026 | 4 | 0.143 | 0.040 | 4 | 0.185 | 0.036 | 4 | 0.965189139 |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| 3 | 2 | 0.344 | 0.090 | 3 | 0.363 | 0.099 | 3 | 0.159 | 0.070 | 3 | 0.965421211 |
| 4 | | 0.136 | 0.030 | 4 | 0.124 | 0.041 | 4 | 0.180 | 0.040 | 4 | 0.965653284 |
| 3 | | 0.226 | 0.021 | 3 | 0.083 | 0.025 | 3 | 0.192 | 0.031 | 3 | 0.965885356 |
| 2 | | 0.151 | 0.035 | 2 | 0.120 | 0.047 | 2 | 0.184 | 0.049 | 2 | 0.966117429 |
| 2 | | 0.097 | 0.030 | 2 | 0.147 | 0.060 | 2 | 0.143 | 0.022 | 2 | 0.966349501 |
| 4 | | 0.084 | 0.019 | 4 | 0.211 | 0.047 | 4 | 0.146 | 0.040 | 4 | 0.966581573 |
| 4 | | 0.096 | 0.064 | 4 | 0.203 | 0.077 | 4 | 0.180 | 0.032 | 4 | 0.966813646 |
| 3 | | 0.044 | 0.034 | 4 | 0.195 | 0.098 | 4 | 0.120 | 0.036 | 4 | 0.967045718 |
| 2 | | 0.089 | 0.004 | 2 | 0.182 | 0.001 | 2 | 0.297 | 0.030 | 2 | 0.967277791 |
| 4 | | 0.092 | 0.047 | 4 | 0.163 | 0.071 | 4 | 0.242 | 0.078 | 4 | 0.967509863 |
| 4 | | 0.097 | 0.043 | 4 | 0.096 | 0.074 | 4 | 0.117 | 0.081 | 4 | 0.967741935 |
| 2 | | 0.086 | 0.032 | 2 | 0.121 | 0.010 | 2 | 0.120 | 0.012 | 2 | 0.967974008 |
| 2 | | 0.155 | 0.053 | 2 | 0.138 | 0.085 | 2 | 0.218 | 0.125 | 2 | 0.96820608 |
| | | 0.101 | 0.104 | 2 | 0.128 | 0.032 | 2 | 0.186 | 0.017 | 2 | 0.968438153 |
| 2 | | 0.122 | 0.020 | 2 | 0.199 | 0.035 | 2 | 0.245 | 0.045 | 2 | 0.968670225 |
| 4 | | 0.124 | 0.010 | 4 | 0.156 | 0.036 | 4 | 0.212 | 0.030 | 4 | 0.968902298 |
| 4 | | 0.083 | 0.028 | 4 | 0.180 | 0.062 | 4 | 0.157 | 0.058 | 4 | 0.96913437 |
| 2 | | 0.093 | 0.006 | 2 | 0.181 | 0.027 | 2 | 0.106 | 0.006 | 2 | 0.969366442 |
| 4 | | 0.042 | 0.034 | 4 | 0.154 | 0.023 | 4 | 0.275 | 0.022 | 4 | 0.969598515 |
| | | 0.029 | 0.015 | 2 | 0.167 | 0.026 | 2 | 0.225 | 0.021 | 2 | 0.969830587 |
| 4 | | -0.011 | 0.038 | 4 | 0.154 | 0.047 | 4 | 0.238 | 0.032 | 4 | 0.97006266 |
| 2 | | 0.077 | 0.040 | 4 | 0.157 | 0.051 | 4 | 0.177 | 0.034 | 4 | 0.970294732 |
| 3 | | 0.151 | 0.014 | 3 | 0.161 | 0.046 | 3 | 0.169 | 0.016 | 3 | 0.970526804 |
| 2 | | 0.048 | 0.018 | 3 | 0.308 | 0.034 | 3 | 0.339 | 0.044 | 3 | 0.970758877 |
| 3 | | 0.126 | 0.037 | 4 | 0.169 | 0.042 | 4 | 0.272 | 0.043 | 4 | 0.970990949 |
| 4 | | 0.075 | 0.063 | 4 | 0.117 | 0.046 | 4 | 0.214 | 0.029 | 4 | 0.971223022 |
| 3 | | 0.082 | 0.051 | 4 | 0.131 | 0.068 | 4 | 0.183 | 0.049 | 4 | 0.971455094 |
| 2 | | 0.124 | 0.028 | 2 | 0.140 | 0.045 | 2 | 0.154 | 0.019 | 2 | 0.971687166 |
| 2 | | 0.106 | 0.046 | 2 | 0.190 | 0.087 | 2 | 0.248 | 0.056 | 2 | 0.971919239 |
| 3 | | 0.153 | 0.019 | 3 | 0.246 | 0.016 | 3 | 0.170 | 0.011 | 3 | 0.972151311 |
| 4 | | 0.120 | 0.014 | 4 | 0.168 | 0.018 | 4 | 0.155 | 0.014 | 4 | 0.972383384 |
| | | 0.104 | 0.083 | 2 | 0.155 | 0.076 | 2 | 0.188 | 0.025 | 2 | 0.972615456 |
| 4 | | 0.027 | 0.068 | 4 | 0.188 | 0.077 | 4 | 0.265 | 0.086 | 4 | 0.972847528 |
| | | 0.039 | 0.061 | 2 | 0.153 | 0.130 | 2 | 0.261 | 0.174 | 2 | 0.973079601 |
| | | 0.056 | 0.055 | 2 | 0.228 | 0.068 | 2 | 0.170 | 0.060 | 2 | 0.973311673 |
| 4 | | 0.064 | 0.026 | 4 | 0.186 | 0.054 | 4 | 0.248 | 0.032 | 4 | 0.973543746 |
| 3 | | 0.186 | 0.021 | 3 | 0.096 | 0.056 | 3 | 0.253 | 0.037 | 3 | 0.973775818 |
| 3 | | 0.120 | 0.027 | 3 | 0.155 | 0.043 | 3 | 0.234 | 0.042 | 3 | 0.97400789 |
| 4 | | 0.105 | 0.015 | 4 | 0.164 | 0.028 | 4 | 0.209 | 0.048 | 4 | 0.974239963 |
| 2 | | 0.135 | 0.006 | 2 | 0.144 | 0.047 | 2 | 0.179 | 0.012 | 2 | 0.974472035 |
| 2 | | 0.180 | 0.022 | 2 | 0.214 | 0.025 | 2 | 0.266 | 0.023 | 2 | 0.974704108 |
| 4 | | 0.135 | 0.065 | 4 | 0.186 | 0.083 | 4 | 0.212 | 0.043 | 4 | 0.97493618 |
| 2 | | 0.121 | 0.040 | 4 | 0.104 | 0.071 | 4 | 0.182 | 0.050 | 4 | 0.975168252 |
| | | 0.043 | 0.010 | 2 | 0.161 | 0.014 | 2 | 0.268 | 0.007 | 2 | 0.975400325 |
| 2 | | 0.166 | 0.004 | 2 | 0.142 | 0.005 | 2 | 0.207 | 0.032 | 2 | 0.975632397 |
| 3 | | 0.220 | 0.033 | 3 | 0.172 | 0.052 | 3 | 0.249 | 0.047 | 3 | 0.97586447 |
| 4 | | 0.173 | 0.044 | 4 | 0.216 | 0.030 | 4 | 0.153 | 0.030 | 4 | 0.976096542 |
| 2 | | 0.179 | 0.037 | 2 | 0.224 | 0.010 | 2 | 0.201 | 0.004 | 2 | 0.976328615 |
| 2 | | 0.101 | 0.026 | 3 | 0.097 | 0.022 | 3 | 0.151 | 0.013 | 3 | 0.976560687 |
| 4 | | 0.099 | 0.022 | 4 | 0.142 | 0.030 | 4 | 0.146 | 0.023 | 4 | 0.976792759 |
| 2 | | 0.209 | 0.033 | 2 | 0.231 | 0.099 | 2 | 0.357 | 0.069 | 2 | 0.977024832 |
| 4 | | 0.120 | 0.020 | 4 | 0.178 | 0.031 | 4 | 0.292 | 0.036 | 4 | 0.977256904 |

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|---|---|---|---|---|---|---|---|---|---|---|
| 3 | 0.148 | 0.026 | 3 | 0.226 | 0.041 | 3 | 0.252 | 0.075 | 3 | 0.977488977 |
| 4 | 0.190 | 0.065 | 4 | 0.219 | 0.044 | 4 | 0.255 | 0.040 | 4 | 0.977721049 |
| 4 | 0.165 | 0.027 | 4 | 0.177 | 0.024 | 4 | 0.294 | 0.019 | 4 | 0.977953121 |
| | 0.102 | 0.115 | 2 | 0.104 | 0.135 | 2 | 0.280 | 0.086 | 2 | 0.978185194 |
| 3 | 0.035 | 0.036 | 4 | 0.116 | 0.047 | 4 | 0.247 | 0.037 | 4 | 0.978417266 |
| 4 | 0.047 | 0.036 | 4 | 0.214 | 0.074 | 4 | 0.282 | 0.057 | 4 | 0.978649339 |
| | 0.070 | 0.023 | 2 | 0.160 | 0.029 | 2 | 0.262 | 0.055 | 2 | 0.978881411 |
| 2 | 0.204 | 0.034 | 2 | 0.253 | 0.109 | 2 | 0.178 | 0.059 | 2 | 0.979113483 |
| 2 | 0.068 | 0.055 | 3 | 0.217 | 0.097 | 3 | 0.364 | 0.098 | 3 | 0.979345556 |
| | 0.107 | 0.028 | 3 | 0.273 | 0.073 | 3 | 0.115 | 0.188 | 3 | 0.979577628 |
| 2 | 0.175 | 0.069 | 3 | 0.274 | 0.092 | 3 | 0.294 | 0.095 | 3 | 0.979809701 |
| 3 | 0.146 | 0.055 | 4 | 0.193 | 0.045 | 4 | 0.223 | 0.032 | 4 | 0.980041773 |
| 3 | 0.131 | 0.068 | 4 | 0.169 | 0.078 | 4 | 0.230 | 0.064 | 4 | 0.980273845 |
| 2 | 0.111 | 0.018 | 2 | 0.157 | 0.076 | 2 | 0.251 | 0.058 | 2 | 0.980505918 |
| | 0.085 | 0.046 | 2 | 0.302 | 0.065 | 2 | 0.119 | 0.065 | 2 | 0.98073799 |
| 4 | 0.153 | 0.012 | 4 | 0.200 | 0.019 | 4 | 0.309 | 0.021 | 4 | 0.980970063 |
| | 0.148 | 0.031 | 2 | 0.176 | 0.037 | 2 | 0.189 | 0.028 | 2 | 0.981202135 |
| 4 | 0.186 | 0.016 | 4 | 0.140 | 0.049 | 4 | 0.238 | 0.024 | 4 | 0.981434207 |
| | 0.137 | 0.019 | 2 | 0.157 | 0.049 | 2 | 0.227 | 0.049 | 2 | 0.98166628 |
| 2 | 0.137 | 0.018 | 2 | 0.191 | 0.015 | 2 | 0.183 | 0.017 | 2 | 0.981898352 |
| 3 | 0.266 | 0.103 | 3 | 0.225 | 0.046 | 3 | 0.269 | 0.088 | 3 | 0.982130425 |
| 2 | 0.097 | 0.114 | 3 | 0.154 | 0.160 | 3 | 0.281 | 0.138 | 3 | 0.982362497 |
| 2 | 0.067 | 0.023 | 3 | 0.149 | 0.025 | 3 | 0.175 | 0.053 | 3 | 0.98259457 |
| 2 | -0.036 | 0.014 | 3 | 0.168 | 0.055 | 3 | 0.244 | 0.045 | 3 | 0.982826642 |
| 4 | 0.132 | 0.036 | 4 | 0.227 | 0.039 | 4 | 0.196 | 0.040 | 4 | 0.983058714 |
| 4 | 0.026 | 0.037 | 4 | 0.124 | 0.038 | 4 | 0.317 | 0.044 | 4 | 0.983290787 |
| 2 | 0.067 | 0.000 | 2 | 0.182 | 0.039 | 2 | 0.314 | 0.030 | 2 | 0.983522859 |
| 4 | 0.164 | 0.049 | 4 | 0.163 | 0.054 | 4 | 0.164 | 0.032 | 4 | 0.983754932 |
| 2 | 0.168 | 0.041 | 3 | 0.182 | 0.022 | 3 | 0.277 | 0.026 | 3 | 0.983987004 |
| 3 | 0.126 | 0.022 | 3 | 0.135 | 0.059 | 3 | 0.339 | 0.031 | 3 | 0.984219076 |
| 2 | 0.126 | 0.009 | 2 | 0.201 | 0.073 | 2 | 0.344 | 0.082 | 2 | 0.984451149 |
| | 0.112 | 0.033 | 2 | 0.149 | 0.035 | 2 | 0.290 | 0.012 | 2 | 0.984683221 |
| 3 | 0.143 | 0.037 | 3 | 0.170 | 0.052 | 3 | 0.271 | 0.032 | 3 | 0.984915294 |
| 4 | 0.043 | 0.017 | 4 | 0.210 | 0.013 | 4 | 0.430 | 0.031 | 4 | 0.985147366 |
| 4 | 0.295 | 0.031 | 4 | 0.202 | 0.032 | 4 | 0.284 | 0.080 | 4 | 0.985379438 |
| | 0.154 | 0.075 | 2 | 0.135 | 0.084 | 2 | 0.275 | 0.070 | 2 | 0.985611511 |
| 3 | 0.009 | 0.019 | 3 | 0.250 | 0.045 | 3 | 0.367 | 0.024 | 3 | 0.985843583 |
| 4 | 0.208 | 0.044 | 4 | 0.194 | 0.042 | 4 | 0.224 | 0.059 | 4 | 0.986075656 |
| 2 | 0.138 | 0.025 | 2 | 0.202 | 0.063 | 2 | 0.207 | 0.064 | 2 | 0.986307728 |
| | 0.039 | 0.009 | 3 | 0.162 | 0.075 | 3 | 0.372 | 0.073 | 3 | 0.9865398 |
| 4 | 0.172 | 0.086 | 4 | 0.247 | 0.066 | 4 | 0.227 | 0.025 | 4 | 0.986771873 |
| 2 | 0.186 | 0.004 | 2 | 0.116 | 0.039 | 2 | 0.217 | 0.011 | 2 | 0.987003945 |
| 3 | 0.169 | 0.066 | 4 | 0.192 | 0.063 | 4 | 0.248 | 0.076 | 4 | 0.987236018 |
| 3 | 0.163 | 0.020 | 4 | 0.217 | 0.074 | 4 | 0.269 | 0.051 | 4 | 0.98746809 |
| 2 | 0.115 | 0.002 | 2 | 0.226 | 0.061 | 2 | 0.220 | 0.034 | 2 | 0.987700162 |
| 4 | 0.200 | 0.028 | 4 | 0.337 | 0.074 | 4 | 0.237 | 0.050 | 4 | 0.987932235 |
| 2 | 0.155 | 0.059 | 2 | 0.183 | 0.151 | 2 | 0.265 | 0.145 | 2 | 0.988164307 |
| 3 | 0.168 | 0.019 | 3 | 0.240 | 0.038 | 3 | 0.192 | 0.031 | 3 | 0.98839638 |
| | 0.094 | 0.008 | 2 | 0.238 | 0.007 | 2 | 0.271 | 0.009 | 2 | 0.988628452 |
| | 0.171 | 0.008 | 3 | 0.159 | 0.034 | 3 | 0.277 | 0.034 | 3 | 0.988860524 |
| 3 | 0.190 | 0.053 | 4 | 0.210 | 0.093 | 4 | 0.251 | 0.060 | 4 | 0.989092597 |
| 2 | 0.214 | 0.010 | 3 | 0.231 | 0.066 | 3 | 0.279 | 0.076 | 3 | 0.989324669 |

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| | 0.157 | 0.012 | 2 | 0.148 | 0.005 | 2 | 0.314 | 0.022 | 2 | 0.989556742 |
| 2 | 0.135 | 0.075 | 3 | 0.277 | 0.061 | 3 | 0.155 | 0.053 | 3 | 0.989788814 |
| 2 | 0.113 | 0.046 | 2 | 0.274 | 0.055 | 2 | 0.286 | 0.065 | 2 | 0.990020887 |
| | 0.102 | 0.029 | 2 | 0.260 | 0.050 | 2 | 0.265 | 0.048 | 2 | 0.990252959 |
| 4 | 0.131 | 0.024 | 4 | 0.198 | 0.055 | 4 | 0.367 | 0.037 | 4 | 0.990485031 |
| 2 | 0.143 | 0.045 | 2 | 0.144 | 0.065 | 2 | 0.272 | 0.042 | 2 | 0.990717104 |
| 3 | 0.198 | 0.029 | 4 | 0.165 | 0.033 | 4 | 0.255 | 0.048 | 4 | 0.990949176 |
| 2 | 0.146 | 0.033 | 3 | 0.314 | 0.055 | 3 | 0.369 | 0.044 | 3 | 0.991181249 |
| 2 | 0.164 | 0.019 | 3 | 0.289 | 0.009 | 3 | 0.333 | 0.028 | 3 | 0.991413321 |
| | 0.182 | 0.027 | 3 | 0.276 | 0.018 | 3 | 0.189 | 0.058 | 3 | 0.991645393 |
| 3 | 0.190 | 0.072 | 3 | 0.229 | 0.031 | 3 | 0.404 | 0.021 | 3 | 0.991877466 |
| 2 | 0.226 | 0.067 | 4 | 0.160 | 0.060 | 4 | 0.342 | 0.063 | 4 | 0.992109538 |
| 2 | 0.200 | 0.031 | 3 | 0.251 | 0.040 | 3 | 0.364 | 0.018 | 3 | 0.992341611 |
| | 0.155 | 0.110 | 2 | 0.183 | 0.181 | 2 | 0.353 | 0.243 | 2 | 0.992573683 |
| 2 | 0.180 | 0.070 | 3 | 0.288 | 0.049 | 3 | 0.317 | 0.074 | 3 | 0.992805755 |
| 3 | 0.238 | 0.035 | 3 | 0.311 | 0.009 | 3 | 0.320 | 0.015 | 3 | 0.993037828 |
| 3 | 0.348 | 0.396 | 4 | 0.170 | 0.060 | 4 | 0.233 | 0.042 | 4 | 0.9932699 |
| | 0.149 | 0.018 | 2 | 0.224 | 0.033 | 2 | 0.340 | 0.044 | 2 | 0.993501973 |
| 2 | 0.328 | 0.041 | 2 | 0.342 | 0.086 | 2 | 0.283 | 0.050 | 2 | 0.993734045 |
| 3 | 0.248 | 0.037 | 4 | 0.223 | 0.056 | 4 | 0.271 | 0.053 | 4 | 0.993966117 |
| 4 | 0.272 | 0.061 | 4 | 0.301 | 0.085 | 4 | 0.362 | 0.068 | 4 | 0.99419819 |
| | 0.095 | 0.016 | 2 | 0.247 | 0.054 | 2 | 0.381 | 0.015 | 2 | 0.994430262 |
| 3 | 0.167 | 0.065 | 4 | 0.236 | 0.044 | 4 | 0.317 | 0.022 | 4 | 0.994662335 |
| 2 | 0.057 | 0.022 | 4 | 0.316 | 0.046 | 4 | 0.278 | 0.017 | 4 | 0.994894407 |
| 3 | 0.268 | 0.040 | 3 | 0.316 | 0.056 | 3 | 0.386 | 0.055 | 3 | 0.995126479 |
| | 0.113 | 0.061 | 2 | 0.279 | 0.077 | 2 | 0.356 | 0.043 | 2 | 0.995358552 |
| | 0.162 | 0.009 | 2 | 0.288 | 0.024 | 2 | 0.305 | 0.036 | 2 | 0.995590624 |
| 2 | 0.313 | 0.064 | 3 | 0.411 | 0.039 | 3 | 0.354 | 0.024 | 3 | 0.995822697 |
| 3 | 0.232 | 0.002 | 3 | 0.280 | 0.027 | 3 | 0.388 | 0.004 | 3 | 0.996054769 |
| | 0.203 | 0.088 | 2 | 0.269 | 0.038 | 2 | 0.308 | 0.043 | 2 | 0.996286841 |
| 2 | 0.304 | 0.028 | 2 | 0.275 | 0.017 | 2 | 0.383 | 0.037 | 2 | 0.996518914 |
| 2 | 0.217 | 0.137 | 2 | 0.259 | 0.160 | 2 | 0.523 | 0.109 | 2 | 0.996750986 |
| 2 | 0.237 | 0.044 | 2 | 0.396 | 0.024 | 2 | 0.347 | 0.026 | 2 | 0.996983059 |
| 3 | 0.179 | 0.044 | 4 | 0.223 | 0.056 | 4 | 0.370 | 0.033 | 4 | 0.997215131 |
| | 0.220 | 0.010 | 2 | 0.212 | 0.015 | 2 | 0.422 | 0.033 | 2 | 0.997447204 |
| 2 | 0.191 | 0.018 | 4 | 0.279 | 0.056 | 4 | 0.297 | 0.021 | 4 | 0.997679276 |
| 2 | 0.233 | 0.040 | 3 | 0.364 | 0.064 | 3 | 0.343 | 0.032 | 3 | 0.997911348 |
| | 0.169 | 0.154 | 2 | 0.389 | 0.083 | 2 | 0.344 | 0.075 | 2 | 0.998143421 |
| 2 | 0.319 | 0.012 | 2 | 0.350 | 0.019 | 2 | 0.342 | 0.002 | 2 | 0.998375493 |
| | 0.183 | 0.068 | 2 | 0.284 | 0.034 | 2 | 0.476 | 0.057 | 2 | 0.998607566 |
| 2 | 0.322 | 0.035 | 2 | 0.366 | 0.010 | 2 | 0.430 | 0.005 | 2 | 0.998839638 |
| 2 | 0.303 | 0.048 | 3 | 0.380 | 0.056 | 3 | 0.555 | 0.030 | 3 | 0.99907171 |
| | 0.199 | 0.046 | 2 | 0.308 | 0.049 | 2 | 0.508 | 0.041 | 2 | 0.999303783 |
| | 0.301 | 0.037 | 2 | 0.399 | 0.023 | 2 | 0.495 | 0.027 | 2 | 0.999535855 |
| | 0.320 | 0.075 | 2 | 0.490 | 0.033 | 2 | 0.676 | 0.069 | 2 | 0.999767928 |
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