**Area of the Cumulative Standard Normal Curve at**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Z** | **0** | **0.01** | **0.02** | **0.03** | **0.04** | **0.05** | **0.06** | **0.07** | **0.08** | **0.09** |
| **-4.9** | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| **-4.8** | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| **-4.7** | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| **-4.6** | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| **-4.5** | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| **-4.4** | 0.00001 | 0.00001 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| **-4.3** | 0.00001 | 0.00001 | 0.00001 | 0.00001 | 0.00001 | 0.00001 | 0.00001 | 0.00001 | 0.00001 | 0.00001 |
| **-4.2** | 0.00001 | 0.00001 | 0.00001 | 0.00001 | 0.00001 | 0.00001 | 0.00001 | 0.00001 | 0.00001 | 0.00001 |
| **-4.1** | 0.00002 | 0.00002 | 0.00002 | 0.00002 | 0.00002 | 0.00002 | 0.00002 | 0.00002 | 0.00001 | 0.00001 |
| **-4.0** | 0.00003 | 0.00003 | 0.00003 | 0.00003 | 0.00003 | 0.00003 | 0.00002 | 0.00002 | 0.00002 | 0.00002 |
| **-3.9** | 0.00005 | 0.00005 | 0.00004 | 0.00004 | 0.00004 | 0.00004 | 0.00004 | 0.00004 | 0.00003 | 0.00003 |
| **-3.8** | 0.00007 | 0.00007 | 0.00007 | 0.00006 | 0.00006 | 0.00006 | 0.00006 | 0.00005 | 0.00005 | 0.00005 |
| **-3.7** | 0.00011 | 0.00010 | 0.00010 | 0.00010 | 0.00009 | 0.00009 | 0.00008 | 0.00008 | 0.00008 | 0.00008 |
| **-3.6** | 0.00016 | 0.00015 | 0.00015 | 0.00014 | 0.00014 | 0.00013 | 0.00013 | 0.00012 | 0.00012 | 0.00011 |
| **-3.5** | 0.00023 | 0.00022 | 0.00022 | 0.00021 | 0.00020 | 0.00019 | 0.00019 | 0.00018 | 0.00017 | 0.00017 |
| **-3.4** | 0.00034 | 0.00032 | 0.00031 | 0.00030 | 0.00029 | 0.00028 | 0.00027 | 0.00026 | 0.00025 | 0.00024 |
| **-3.3** | 0.00048 | 0.00047 | 0.00045 | 0.00043 | 0.00042 | 0.00040 | 0.00039 | 0.00038 | 0.00036 | 0.00035 |
| **-3.2** | 0.00069 | 0.00066 | 0.00064 | 0.00062 | 0.00060 | 0.00058 | 0.00056 | 0.00054 | 0.00052 | 0.00050 |
| **-3.1** | 0.00097 | 0.00094 | 0.00090 | 0.00087 | 0.00084 | 0.00082 | 0.00079 | 0.00076 | 0.00074 | 0.00071 |
| **-3.0** | 0.00135 | 0.00131 | 0.00126 | 0.00122 | 0.00118 | 0.00114 | 0.00111 | 0.00107 | 0.00104 | 0.00100 |
| **-2.9** | 0.00187 | 0.00181 | 0.00175 | 0.00169 | 0.00164 | 0.00159 | 0.00154 | 0.00149 | 0.00144 | 0.00139 |
| **-2.8** | 0.00256 | 0.00248 | 0.00240 | 0.00233 | 0.00226 | 0.00219 | 0.00212 | 0.00205 | 0.00199 | 0.00193 |
| **-2.7** | 0.00347 | 0.00336 | 0.00326 | 0.00317 | 0.00307 | 0.00298 | 0.00289 | 0.00280 | 0.00272 | 0.00264 |
| **Z** | **0** | **0.01** | **0.02** | **0.03** | **0.04** | **0.05** | **0.06** | **0.07** | **0.08** | **0.09** |
| **-2.6** | 0.00466 | 0.00453 | 0.00440 | 0.00427 | 0.00415 | 0.00402 | 0.00391 | 0.00379 | 0.00368 | 0.00357 |
| **-2.5** | 0.00621 | 0.00604 | 0.00587 | 0.00570 | 0.00554 | 0.00539 | 0.00523 | 0.00508 | 0.00494 | 0.00480 |
| **-2.4** | 0.00820 | 0.00798 | 0.00776 | 0.00755 | 0.00734 | 0.00714 | 0.00695 | 0.00676 | 0.00657 | 0.00639 |
| **-2.3** | 0.01072 | 0.01044 | 0.01017 | 0.00990 | 0.00964 | 0.00939 | 0.00914 | 0.00889 | 0.00866 | 0.00842 |
| **-2.2** | 0.01390 | 0.01355 | 0.01321 | 0.01287 | 0.01255 | 0.01222 | 0.01191 | 0.01160 | 0.01130 | 0.01101 |
| **-2.1** | 0.01786 | 0.01743 | 0.01700 | 0.01659 | 0.01618 | 0.01578 | 0.01539 | 0.01500 | 0.01463 | 0.01426 |
| **-2.0** | 0.02275 | 0.02222 | 0.02169 | 0.02118 | 0.02068 | 0.02018 | 0.01970 | 0.01923 | 0.01876 | 0.01831 |
| **-1.9** | 0.02872 | 0.02807 | 0.02743 | 0.02680 | 0.02619 | 0.02559 | 0.02500 | 0.02442 | 0.02385 | 0.02330 |
| **-1.8** | 0.03593 | 0.03515 | 0.03438 | 0.03362 | 0.03288 | 0.03216 | 0.03144 | 0.03074 | 0.03005 | 0.02938 |
| **-1.7** | 0.04457 | 0.04363 | 0.04272 | 0.04182 | 0.04093 | 0.04006 | 0.03920 | 0.03836 | 0.03754 | 0.03673 |
| **-1.6** | 0.05480 | 0.05370 | 0.05262 | 0.05155 | 0.05050 | 0.04947 | 0.04846 | 0.04746 | 0.04648 | 0.04551 |
| **-1.5** | 0.06681 | 0.06552 | 0.06426 | 0.06301 | 0.06178 | 0.06057 | 0.05938 | 0.05821 | 0.05705 | 0.05592 |
| **-1.4** | 0.08076 | 0.07927 | 0.07780 | 0.07636 | 0.07493 | 0.07353 | 0.07215 | 0.07078 | 0.06944 | 0.06811 |
| **-1.3** | 0.09680 | 0.09510 | 0.09342 | 0.09176 | 0.09012 | 0.08851 | 0.08691 | 0.08534 | 0.08379 | 0.08226 |
| **-1.2** | 0.11507 | 0.11314 | 0.11123 | 0.10935 | 0.10749 | 0.10565 | 0.10383 | 0.10204 | 0.10027 | 0.09853 |
| **-1.1** | 0.13567 | 0.13350 | 0.13136 | 0.12924 | 0.12714 | 0.12507 | 0.12302 | 0.12100 | 0.11900 | 0.11702 |
| **-1.0** | 0.15866 | 0.15625 | 0.15386 | 0.15151 | 0.14917 | 0.14686 | 0.14457 | 0.14231 | 0.14007 | 0.13786 |
| **-0.9** | 0.18406 | 0.18141 | 0.17879 | 0.17619 | 0.17361 | 0.17106 | 0.16853 | 0.16602 | 0.16354 | 0.16109 |
| **-0.8** | 0.21186 | 0.20897 | 0.20611 | 0.20327 | 0.20045 | 0.19766 | 0.19489 | 0.19215 | 0.18943 | 0.18673 |
| **-0.7** | 0.24196 | 0.23885 | 0.23576 | 0.23270 | 0.22965 | 0.22663 | 0.22363 | 0.22065 | 0.21770 | 0.21476 |
| **-0.6** | 0.27425 | 0.27093 | 0.26763 | 0.26435 | 0.26109 | 0.25785 | 0.25463 | 0.25143 | 0.24825 | 0.24510 |
| **-0.5** | 0.30854 | 0.30503 | 0.30153 | 0.29806 | 0.29460 | 0.29116 | 0.28774 | 0.28434 | 0.28096 | 0.27760 |
| **-0.4** | 0.34458 | 0.34090 | 0.33724 | 0.33360 | 0.32997 | 0.32636 | 0.32276 | 0.31918 | 0.31561 | 0.31207 |
| **Z** | **0** | **0.01** | **0.02** | **0.03** | **0.04** | **0.05** | **0.06** | **0.07** | **0.08** | **0.09** |
| **-0.3** | 0.38209 | 0.37828 | 0.37448 | 0.37070 | 0.36693 | 0.36317 | 0.35942 | 0.35569 | 0.35197 | 0.34827 |
| **-0.2** | 0.42074 | 0.41683 | 0.41294 | 0.40905 | 0.40517 | 0.40129 | 0.39743 | 0.39358 | 0.38974 | 0.38591 |
| **-0.1** | 0.46017 | 0.45620 | 0.45224 | 0.44828 | 0.44433 | 0.44038 | 0.43644 | 0.43251 | 0.42858 | 0.42465 |
| **-0.0** | 0.50000 | 0.49601 | 0.49202 | 0.48803 | 0.48405 | 0.48006 | 0.47608 | 0.47210 | 0.46812 | 0.46414 |
| **0.0** | 0.50000 | 0.50399 | 0.50798 | 0.51197 | 0.51595 | 0.51994 | 0.52392 | 0.52790 | 0.53188 | 0.53586 |
| **0.1** | 0.53983 | 0.54380 | 0.54776 | 0.55172 | 0.55567 | 0.55962 | 0.56356 | 0.56749 | 0.57142 | 0.57535 |
| **0.2** | 0.57926 | 0.58317 | 0.58706 | 0.59095 | 0.59483 | 0.59871 | 0.60257 | 0.60642 | 0.61026 | 0.61409 |
| **0.3** | 0.61791 | 0.62172 | 0.62552 | 0.62930 | 0.63307 | 0.63683 | 0.64058 | 0.64431 | 0.64803 | 0.65173 |
| **0.4** | 0.65542 | 0.65910 | 0.66276 | 0.66640 | 0.67003 | 0.67364 | 0.67724 | 0.68082 | 0.68439 | 0.68793 |
| **0.5** | 0.69146 | 0.69497 | 0.69847 | 0.70194 | 0.70540 | 0.70884 | 0.71226 | 0.71566 | 0.71904 | 0.72240 |
| **0.6** | 0.72575 | 0.72907 | 0.73237 | 0.73565 | 0.73891 | 0.74215 | 0.74537 | 0.74857 | 0.75175 | 0.75490 |
| **0.7** | 0.75804 | 0.76115 | 0.76424 | 0.76730 | 0.77035 | 0.77337 | 0.77637 | 0.77935 | 0.78230 | 0.78524 |
| **0.8** | 0.78814 | 0.79103 | 0.79389 | 0.79673 | 0.79955 | 0.80234 | 0.80511 | 0.80785 | 0.81057 | 0.81327 |
| **0.9** | 0.81594 | 0.81859 | 0.82121 | 0.82381 | 0.82639 | 0.82894 | 0.83147 | 0.83398 | 0.83646 | 0.83891 |
| **1.0** | 0.84134 | 0.84375 | 0.84614 | 0.84849 | 0.85083 | 0.85314 | 0.85543 | 0.85769 | 0.85993 | 0.86214 |
| **1.1** | 0.86433 | 0.86650 | 0.86864 | 0.87076 | 0.87286 | 0.87493 | 0.87698 | 0.87900 | 0.88100 | 0.88298 |
| **1.2** | 0.88493 | 0.88686 | 0.88877 | 0.89065 | 0.89251 | 0.89435 | 0.89617 | 0.89796 | 0.89973 | 0.90147 |
| **1.3** | 0.90320 | 0.90490 | 0.90658 | 0.90824 | 0.90988 | 0.91149 | 0.91309 | 0.91466 | 0.91621 | 0.91774 |
| **1.4** | 0.91924 | 0.92073 | 0.92220 | 0.92364 | 0.92507 | 0.92647 | 0.92785 | 0.92922 | 0.93056 | 0.93189 |
| **1.5** | 0.93319 | 0.93448 | 0.93574 | 0.93699 | 0.93822 | 0.93943 | 0.94062 | 0.94179 | 0.94295 | 0.94408 |
| **1.6** | 0.94520 | 0.94630 | 0.94738 | 0.94845 | 0.94950 | 0.95053 | 0.95154 | 0.95254 | 0.95352 | 0.95449 |
| **1.7** | 0.95543 | 0.95637 | 0.95728 | 0.95818 | 0.95907 | 0.95994 | 0.96080 | 0.96164 | 0.96246 | 0.96327 |
| **1.8** | 0.96407 | 0.96485 | 0.96562 | 0.96638 | 0.96712 | 0.96784 | 0.96856 | 0.96926 | 0.96995 | 0.97062 |
| **Z** | **0** | **0.01** | **0.02** | **0.03** | **0.04** | **0.05** | **0.06** | **0.07** | **0.08** | **0.09** |
| **1.9** | 0.97128 | 0.97193 | 0.97257 | 0.97320 | 0.97381 | 0.97441 | 0.97500 | 0.97558 | 0.97615 | 0.97670 |
| **2.0** | 0.97725 | 0.97778 | 0.97831 | 0.97882 | 0.97932 | 0.97982 | 0.98030 | 0.98077 | 0.98124 | 0.98169 |
| **2.1** | 0.98214 | 0.98257 | 0.98300 | 0.98341 | 0.98382 | 0.98422 | 0.98461 | 0.98500 | 0.98537 | 0.98574 |
| **2.2** | 0.98610 | 0.98645 | 0.98679 | 0.98713 | 0.98745 | 0.98778 | 0.98809 | 0.98840 | 0.98870 | 0.98899 |
| **2.3** | 0.98928 | 0.98956 | 0.98983 | 0.99010 | 0.99036 | 0.99061 | 0.99086 | 0.99111 | 0.99134 | 0.99158 |
| **2.4** | 0.99180 | 0.99202 | 0.99224 | 0.99245 | 0.99266 | 0.99286 | 0.99305 | 0.99324 | 0.99343 | 0.99361 |
| **2.5** | 0.99379 | 0.99396 | 0.99413 | 0.99430 | 0.99446 | 0.99461 | 0.99477 | 0.99492 | 0.99506 | 0.99520 |
| **2.6** | 0.99534 | 0.99547 | 0.99560 | 0.99573 | 0.99585 | 0.99598 | 0.99609 | 0.99621 | 0.99632 | 0.99643 |
| **2.7** | 0.99653 | 0.99664 | 0.99674 | 0.99683 | 0.99693 | 0.99702 | 0.99711 | 0.99720 | 0.99728 | 0.99736 |
| **2.8** | 0.99744 | 0.99752 | 0.99760 | 0.99767 | 0.99774 | 0.99781 | 0.99788 | 0.99795 | 0.99801 | 0.99807 |
| **2.9** | 0.99813 | 0.99819 | 0.99825 | 0.99831 | 0.99836 | 0.99841 | 0.99846 | 0.99851 | 0.99856 | 0.99861 |
| **3.0** | 0.99865 | 0.99869 | 0.99874 | 0.99878 | 0.99882 | 0.99886 | 0.99889 | 0.99893 | 0.99896 | 0.99900 |
| **3.1** | 0.99903 | 0.99906 | 0.99910 | 0.99913 | 0.99916 | 0.99918 | 0.99921 | 0.99924 | 0.99926 | 0.99929 |
| **3.2** | 0.99931 | 0.99934 | 0.99936 | 0.99938 | 0.99940 | 0.99942 | 0.99944 | 0.99946 | 0.99948 | 0.99950 |
| **3.3** | 0.99952 | 0.99953 | 0.99955 | 0.99957 | 0.99958 | 0.99960 | 0.99961 | 0.99962 | 0.99964 | 0.99965 |
| **3.4** | 0.99966 | 0.99968 | 0.99969 | 0.99970 | 0.99971 | 0.99972 | 0.99973 | 0.99974 | 0.99975 | 0.99976 |
| **3.5** | 0.99977 | 0.99978 | 0.99978 | 0.99979 | 0.99980 | 0.99981 | 0.99981 | 0.99982 | 0.99983 | 0.99983 |
| **3.6** | 0.99984 | 0.99985 | 0.99985 | 0.99986 | 0.99986 | 0.99987 | 0.99987 | 0.99988 | 0.99988 | 0.99989 |
| **3.7** | 0.99989 | 0.99990 | 0.99990 | 0.99990 | 0.99991 | 0.99991 | 0.99992 | 0.99992 | 0.99992 | 0.99992 |
| **3.8** | 0.99993 | 0.99993 | 0.99993 | 0.99994 | 0.99994 | 0.99994 | 0.99994 | 0.99995 | 0.99995 | 0.99995 |
| **3.9** | 0.99995 | 0.99995 | 0.99996 | 0.99996 | 0.99996 | 0.99996 | 0.99996 | 0.99996 | 0.99997 | 0.99997 |
| **4.0** | 0.99997 | 0.99997 | 0.99997 | 0.99997 | 0.99997 | 0.99997 | 0.99998 | 0.99998 | 0.99998 | 0.99998 |
| **4.1** | 0.99998 | 0.99998 | 0.99998 | 0.99998 | 0.99998 | 0.99998 | 0.99998 | 0.99998 | 0.99999 | 0.99999 |
| **Z** | **0** | **0.01** | **0.02** | **0.03** | **0.04** | **0.05** | **0.06** | **0.07** | **0.08** | **0.09** |
| **4.2** | 0.99999 | 0.99999 | 0.99999 | 0.99999 | 0.99999 | 0.99999 | 0.99999 | 0.99999 | 0.99999 | 0.99999 |
| **4.3** | 0.99999 | 0.99999 | 0.99999 | 0.99999 | 0.99999 | 0.99999 | 0.99999 | 0.99999 | 0.99999 | 0.99999 |
| **4.4** | 0.99999 | 0.99999 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 |
| **4.5** | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 |
| **4.6** | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 |
| **4.7** | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 |
| **4.8** | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 |
| **4.9** | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 |

**Inverse Cumulative Standard Normal Curve**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **P** | **0** | **0.001** | **0.002** | **0.003** | **0.004** | **0.005** | **0.006** | **0.007** | **0.008** | **0.009** |
| **0.00** | ∞ | -3.09023 | -2.87816 | -2.74778 | -2.65207 | -2.57583 | -2.51214 | -2.45726 | -2.40892 | -2.36562 |
| **0.01** | -2.32635 | -2.29037 | -2.25713 | -2.22621 | -2.19729 | -2.17009 | -2.14441 | -2.12007 | -2.09693 | -2.07485 |
| **0.02** | -2.05375 | -2.03352 | -2.01409 | -1.99539 | -1.97737 | -1.95996 | -1.94313 | -1.92684 | -1.91104 | -1.8957 |
| **0.03** | -1.88079 | -1.8663 | -1.85218 | -1.83842 | -1.82501 | -1.81191 | -1.79912 | -1.78661 | -1.77438 | -1.76241 |
| **0.04** | -1.75069 | -1.7392 | -1.72793 | -1.71689 | -1.70604 | -1.6954 | -1.68494 | -1.67466 | -1.66456 | -1.65463 |
| **0.05** | -1.64485 | -1.63523 | -1.62576 | -1.61644 | -1.60725 | -1.59819 | -1.58927 | -1.58047 | -1.57179 | -1.56322 |
| **0.06** | -1.55477 | -1.54643 | -1.5382 | -1.53007 | -1.52204 | -1.5141 | -1.50626 | -1.49851 | -1.49085 | -1.48328 |
| **0.07** | -1.47579 | -1.46838 | -1.46106 | -1.45381 | -1.44663 | -1.43953 | -1.4325 | -1.42554 | -1.41865 | -1.41183 |
| **0.08** | -1.40507 | -1.39838 | -1.39174 | -1.38517 | -1.37866 | -1.3722 | -1.36581 | -1.35946 | -1.35317 | -1.34694 |
| **0.09** | -1.34076 | -1.33462 | -1.32854 | -1.32251 | -1.31652 | -1.31058 | -1.30469 | -1.29884 | -1.29303 | -1.28727 |
| **0.10** | -1.28155 | -1.27587 | -1.27024 | -1.26464 | -1.25908 | -1.25357 | -1.24808 | -1.24264 | -1.23723 | -1.23186 |
| **0.11** | -1.22653 | -1.22123 | -1.21596 | -1.21073 | -1.20553 | -1.20036 | -1.19522 | -1.19012 | -1.18504 | -1.18 |
| **0.12** | -1.17499 | -1.17 | -1.16505 | -1.16012 | -1.15522 | -1.15035 | -1.14551 | -1.14069 | -1.1359 | -1.13113 |
| **0.13** | -1.12639 | -1.12168 | -1.11699 | -1.11232 | -1.10768 | -1.10306 | -1.09847 | -1.0939 | -1.08935 | -1.08482 |
| **0.14** | -1.08032 | -1.07584 | -1.07138 | -1.06694 | -1.06252 | -1.05812 | -1.05374 | -1.04939 | -1.04505 | -1.04073 |
| **0.15** | -1.03643 | -1.03215 | -1.02789 | -1.02365 | -1.01943 | -1.01522 | -1.01103 | -1.00686 | -1.00271 | -0.99858 |
| **0.16** | -0.99446 | -0.99036 | -0.98627 | -0.9822 | -0.97815 | -0.97411 | -0.97009 | -0.96609 | -0.9621 | -0.95812 |
| **0.17** | -0.95417 | -0.95022 | -0.94629 | -0.94238 | -0.93848 | -0.93459 | -0.93072 | -0.92686 | -0.92301 | -0.91918 |
| **0.18** | -0.91537 | -0.91156 | -0.90777 | -0.90399 | -0.90023 | -0.89647 | -0.89273 | -0.88901 | -0.88529 | -0.88159 |
| **0.19** | -0.8779 | -0.87422 | -0.87055 | -0.86689 | -0.86325 | -0.85962 | -0.856 | -0.85239 | -0.84879 | -0.8452 |
| **0.20** | -0.84162 | -0.83805 | -0.8345 | -0.83095 | -0.82742 | -0.82389 | -0.82038 | -0.81687 | -0.81338 | -0.8099 |
| **0.21** | -0.80642 | -0.80296 | -0.7995 | -0.79606 | -0.79262 | -0.78919 | -0.78577 | -0.78237 | -0.77897 | -0.77557 |
| **P** | **0** | **0.001** | **0.002** | **0.003** | **0.004** | **0.005** | **0.006** | **0.007** | **0.008** | **0.009** |
| **0.22** | -0.77219 | -0.76882 | -0.76546 | -0.7621 | -0.75875 | -0.75542 | -0.75208 | -0.74876 | -0.74545 | -0.74214 |
| **0.23** | -0.73885 | -0.73556 | -0.73228 | -0.729 | -0.72574 | -0.72248 | -0.71923 | -0.71599 | -0.71275 | -0.70952 |
| **0.24** | -0.7063 | -0.70309 | -0.69988 | -0.69668 | -0.69349 | -0.69031 | -0.68713 | -0.68396 | -0.6808 | -0.67764 |
| **0.25** | -0.67449 | -0.67135 | -0.66821 | -0.66508 | -0.66196 | -0.65884 | -0.65573 | -0.65262 | -0.64952 | -0.64643 |
| **0.26** | -0.64335 | -0.64027 | -0.63719 | -0.63412 | -0.63106 | -0.62801 | -0.62496 | -0.62191 | -0.61887 | -0.61584 |
| **0.27** | -0.61281 | -0.60979 | -0.60678 | -0.60376 | -0.60076 | -0.59776 | -0.59477 | -0.59178 | -0.58879 | -0.58581 |
| **0.28** | -0.58284 | -0.57987 | -0.57691 | -0.57395 | -0.571 | -0.56805 | -0.56511 | -0.56217 | -0.55924 | -0.55631 |
| **0.29** | -0.55338 | -0.55047 | -0.54755 | -0.54464 | -0.54174 | -0.53884 | -0.53594 | -0.53305 | -0.53016 | -0.52728 |
| **0.30** | -0.5244 | -0.52153 | -0.51866 | -0.51579 | -0.51293 | -0.51007 | -0.50722 | -0.50437 | -0.50153 | -0.49869 |
| **0.31** | -0.49585 | -0.49302 | -0.49019 | -0.48736 | -0.48454 | -0.48173 | -0.47891 | -0.4761 | -0.4733 | -0.4705 |
| **0.32** | -0.4677 | -0.4649 | -0.46211 | -0.45933 | -0.45654 | -0.45376 | -0.45099 | -0.44821 | -0.44544 | -0.44268 |
| **0.33** | -0.43991 | -0.43715 | -0.4344 | -0.43164 | -0.42889 | -0.42615 | -0.4234 | -0.42066 | -0.41793 | -0.41519 |
| **0.34** | -0.41246 | -0.40974 | -0.40701 | -0.40429 | -0.40157 | -0.39886 | -0.39614 | -0.39343 | -0.39073 | -0.38802 |
| **0.35** | -0.38532 | -0.38262 | -0.37993 | -0.37723 | -0.37454 | -0.37186 | -0.36917 | -0.36649 | -0.36381 | -0.36113 |
| **0.36** | -0.35846 | -0.35579 | -0.35312 | -0.35045 | -0.34779 | -0.34513 | -0.34247 | -0.33981 | -0.33716 | -0.3345 |
| **0.37** | -0.33185 | -0.32921 | -0.32656 | -0.32392 | -0.32128 | -0.31864 | -0.316 | -0.31337 | -0.31074 | -0.30811 |
| **0.38** | -0.30548 | -0.30286 | -0.30023 | -0.29761 | -0.29499 | -0.29237 | -0.28976 | -0.28715 | -0.28454 | -0.28193 |
| **0.39** | -0.27932 | -0.27671 | -0.27411 | -0.27151 | -0.26891 | -0.26631 | -0.26371 | -0.26112 | -0.25853 | -0.25594 |
| **0.40** | -0.25335 | -0.25076 | -0.24817 | -0.24559 | -0.24301 | -0.24043 | -0.23785 | -0.23527 | -0.23269 | -0.23012 |
| **0.41** | -0.22754 | -0.22497 | -0.2224 | -0.21983 | -0.21727 | -0.2147 | -0.21214 | -0.20957 | -0.20701 | -0.20445 |
| **0.42** | -0.20189 | -0.19934 | -0.19678 | -0.19422 | -0.19167 | -0.18912 | -0.18657 | -0.18402 | -0.18147 | -0.17892 |
| **0.43** | -0.17637 | -0.17383 | -0.17128 | -0.16874 | -0.1662 | -0.16366 | -0.16112 | -0.15858 | -0.15604 | -0.15351 |
| **0.44** | -0.15097 | -0.14843 | -0.1459 | -0.14337 | -0.14084 | -0.1383 | -0.13577 | -0.13324 | -0.13072 | -0.12819 |
| **P** | **0** | **0.001** | **0.002** | **0.003** | **0.004** | **0.005** | **0.006** | **0.007** | **0.008** | **0.009** |
| **0.45** | -0.12566 | -0.12314 | -0.12061 | -0.11809 | -0.11556 | -0.11304 | -0.11052 | -0.10799 | -0.10547 | -0.10295 |
| **0.46** | -0.10043 | -0.09791 | -0.0954 | -0.09288 | -0.09036 | -0.08784 | -0.08533 | -0.08281 | -0.0803 | -0.07778 |
| **0.47** | -0.07527 | -0.07276 | -0.07024 | -0.06773 | -0.06522 | -0.06271 | -0.0602 | -0.05768 | -0.05517 | -0.05266 |
| **0.48** | -0.05015 | -0.04764 | -0.04513 | -0.04263 | -0.04012 | -0.03761 | -0.0351 | -0.03259 | -0.03008 | -0.02758 |
| **0.49** | -0.02507 | -0.02256 | -0.02005 | -0.01755 | -0.01504 | -0.01253 | -0.01003 | -0.00752 | -0.00501 | -0.00251 |
| **0.50** | 0 | 0.002507 | 0.005013 | 0.00752 | 0.010027 | 0.012533 | 0.01504 | 0.017547 | 0.020054 | 0.022562 |
| **0.51** | 0.025069 | 0.027576 | 0.030084 | 0.032592 | 0.0351 | 0.037608 | 0.040117 | 0.042626 | 0.045135 | 0.047644 |
| **0.52** | 0.050154 | 0.052664 | 0.055174 | 0.057684 | 0.060195 | 0.062707 | 0.065219 | 0.067731 | 0.070243 | 0.072756 |
| **0.53** | 0.07527 | 0.077784 | 0.080298 | 0.082813 | 0.085329 | 0.087845 | 0.090361 | 0.092879 | 0.095396 | 0.097915 |
| **0.54** | 0.100434 | 0.102953 | 0.105474 | 0.107995 | 0.110516 | 0.113039 | 0.115562 | 0.118085 | 0.12061 | 0.123135 |
| **0.55** | 0.125661 | 0.128188 | 0.130716 | 0.133245 | 0.135774 | 0.138304 | 0.140835 | 0.143367 | 0.1459 | 0.148434 |
| **0.56** | 0.150969 | 0.153505 | 0.156042 | 0.15858 | 0.161119 | 0.163658 | 0.166199 | 0.168741 | 0.171285 | 0.173829 |
| **0.57** | 0.176374 | 0.178921 | 0.181468 | 0.184017 | 0.186567 | 0.189118 | 0.191671 | 0.194225 | 0.19678 | 0.199336 |
| **0.58** | 0.201893 | 0.204452 | 0.207013 | 0.209574 | 0.212137 | 0.214702 | 0.217267 | 0.219835 | 0.222403 | 0.224973 |
| **0.59** | 0.227545 | 0.230118 | 0.232693 | 0.235269 | 0.237847 | 0.240426 | 0.243007 | 0.24559 | 0.248174 | 0.25076 |
| **0.60** | 0.253347 | 0.255936 | 0.258527 | 0.26112 | 0.263714 | 0.266311 | 0.268909 | 0.271508 | 0.27411 | 0.276714 |
| **0.61** | 0.279319 | 0.281926 | 0.284536 | 0.287147 | 0.28976 | 0.292375 | 0.294992 | 0.297611 | 0.300232 | 0.302855 |
| **0.62** | 0.305481 | 0.308108 | 0.310738 | 0.313369 | 0.316003 | 0.318639 | 0.321278 | 0.323918 | 0.326561 | 0.329206 |
| **0.63** | 0.331853 | 0.334503 | 0.337155 | 0.339809 | 0.342466 | 0.345126 | 0.347787 | 0.350451 | 0.353118 | 0.355787 |
| **0.64** | 0.358459 | 0.361133 | 0.36381 | 0.366489 | 0.369171 | 0.371856 | 0.374543 | 0.377234 | 0.379926 | 0.382622 |
| **0.65** | 0.38532 | 0.388022 | 0.390726 | 0.393433 | 0.396142 | 0.398855 | 0.401571 | 0.404289 | 0.407011 | 0.409735 |
| **0.66** | 0.412463 | 0.415194 | 0.417928 | 0.420665 | 0.423405 | 0.426148 | 0.428895 | 0.431644 | 0.434397 | 0.437154 |
| **0.67** | 0.439913 | 0.442676 | 0.445443 | 0.448212 | 0.450985 | 0.453762 | 0.456542 | 0.459326 | 0.462113 | 0.464904 |
| **P** | **0** | **0.001** | **0.002** | **0.003** | **0.004** | **0.005** | **0.006** | **0.007** | **0.008** | **0.009** |
| **0.68** | 0.467699 | 0.470497 | 0.473299 | 0.476104 | 0.478914 | 0.481727 | 0.484544 | 0.487365 | 0.490189 | 0.493018 |
| **0.69** | 0.49585 | 0.498687 | 0.501527 | 0.504372 | 0.507221 | 0.510073 | 0.51293 | 0.515792 | 0.518657 | 0.521527 |
| **0.70** | 0.524401 | 0.527279 | 0.530161 | 0.533049 | 0.53594 | 0.538836 | 0.541737 | 0.544642 | 0.547551 | 0.550466 |
| **0.71** | 0.553385 | 0.556308 | 0.559237 | 0.56217 | 0.565108 | 0.568051 | 0.570999 | 0.573952 | 0.57691 | 0.579873 |
| **0.72** | 0.582842 | 0.585815 | 0.588793 | 0.591777 | 0.594766 | 0.59776 | 0.60076 | 0.603765 | 0.606775 | 0.609791 |
| **0.73** | 0.612813 | 0.61584 | 0.618873 | 0.621912 | 0.624956 | 0.628006 | 0.631062 | 0.634124 | 0.637192 | 0.640266 |
| **0.74** | 0.643345 | 0.646431 | 0.649524 | 0.652622 | 0.655727 | 0.658838 | 0.661955 | 0.665079 | 0.668209 | 0.671346 |
| **0.75** | 0.67449 | 0.67764 | 0.680797 | 0.683961 | 0.687131 | 0.690309 | 0.693493 | 0.696685 | 0.699884 | 0.703089 |
| **0.76** | 0.706303 | 0.709523 | 0.712751 | 0.715986 | 0.719229 | 0.722479 | 0.725737 | 0.729003 | 0.732276 | 0.735558 |
| **0.77** | 0.738847 | 0.742144 | 0.74545 | 0.748763 | 0.752085 | 0.755415 | 0.758754 | 0.762101 | 0.765456 | 0.76882 |
| **0.78** | 0.772193 | 0.775575 | 0.778966 | 0.782365 | 0.785774 | 0.789192 | 0.792619 | 0.796055 | 0.799501 | 0.802956 |
| **0.79** | 0.806421 | 0.809896 | 0.81338 | 0.816875 | 0.820379 | 0.823894 | 0.827418 | 0.830953 | 0.834499 | 0.838055 |
| **0.80** | 0.841621 | 0.845199 | 0.848787 | 0.852386 | 0.855996 | 0.859617 | 0.86325 | 0.866894 | 0.87055 | 0.874217 |
| **0.81** | 0.877896 | 0.881587 | 0.88529 | 0.889006 | 0.892733 | 0.896473 | 0.900226 | 0.903991 | 0.90777 | 0.911561 |
| **0.82** | 0.915365 | 0.919183 | 0.923014 | 0.926859 | 0.930717 | 0.934589 | 0.938476 | 0.942376 | 0.946291 | 0.950221 |
| **0.83** | 0.954165 | 0.958124 | 0.962099 | 0.966088 | 0.970093 | 0.974114 | 0.97815 | 0.982203 | 0.986271 | 0.990356 |
| **0.84** | 0.994458 | 0.998576 | 1.002712 | 1.006864 | 1.011034 | 1.015222 | 1.019428 | 1.023651 | 1.027893 | 1.032154 |
| **0.85** | 1.036433 | 1.040732 | 1.04505 | 1.049387 | 1.053744 | 1.058122 | 1.062519 | 1.066938 | 1.071377 | 1.075837 |
| **0.86** | 1.080319 | 1.084823 | 1.089349 | 1.093897 | 1.098468 | 1.103063 | 1.10768 | 1.112321 | 1.116987 | 1.121677 |
| **0.87** | 1.126391 | 1.131131 | 1.135896 | 1.140687 | 1.145505 | 1.150349 | 1.155221 | 1.16012 | 1.165047 | 1.170002 |
| **0.88** | 1.174987 | 1.180001 | 1.185044 | 1.190118 | 1.195223 | 1.200359 | 1.205527 | 1.210727 | 1.21596 | 1.221227 |
| **0.89** | 1.226528 | 1.231864 | 1.237235 | 1.242641 | 1.248085 | 1.253565 | 1.259084 | 1.264641 | 1.270238 | 1.275874 |
| **0.90** | 1.281552 | 1.287271 | 1.293032 | 1.298837 | 1.304685 | 1.310579 | 1.316519 | 1.322505 | 1.328539 | 1.334622 |
| **P** | **0** | **0.001** | **0.002** | **0.003** | **0.004** | **0.005** | **0.006** | **0.007** | **0.008** | **0.009** |
| **0.91** | 1.340755 | 1.346939 | 1.353174 | 1.359463 | 1.365806 | 1.372204 | 1.378659 | 1.385172 | 1.391744 | 1.398377 |
| **0.92** | 1.405072 | 1.41183 | 1.418654 | 1.425544 | 1.432503 | 1.439531 | 1.446632 | 1.453806 | 1.461056 | 1.468384 |
| **0.93** | 1.475791 | 1.48328 | 1.490853 | 1.498513 | 1.506262 | 1.514102 | 1.522036 | 1.530068 | 1.538199 | 1.546433 |
| **0.94** | 1.554774 | 1.563224 | 1.571787 | 1.580467 | 1.589268 | 1.598193 | 1.607248 | 1.616436 | 1.625763 | 1.635234 |
| **0.95** | 1.644854 | 1.654628 | 1.664563 | 1.674665 | 1.684941 | 1.695398 | 1.706043 | 1.716886 | 1.727934 | 1.739198 |
| **0.96** | 1.750686 | 1.76241 | 1.774382 | 1.786613 | 1.799118 | 1.811911 | 1.825007 | 1.838424 | 1.85218 | 1.866296 |
| **0.97** | 1.880794 | 1.895698 | 1.911036 | 1.926837 | 1.943134 | 1.959964 | 1.977368 | 1.995393 | 2.014091 | 2.03352 |
| **0.98** | 2.053749 | 2.074855 | 2.096927 | 2.120072 | 2.144411 | 2.17009 | 2.197286 | 2.226212 | 2.257129 | 2.290368 |
| **0.99** | 2.326348 | 2.365618 | 2.408916 | 2.457263 | 2.512144 | 2.575829 | 2.65207 | 2.747781 | 2.878162 | 3.090232 |
| **1** | ∞ | ∞ | ∞ | ∞ | ∞ | ∞ | ∞ | ∞ | ∞ | ∞ |

**Ordinates of the Standard Normal Curve at**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Z** | **0** | **0.01** | **0.02** | **0.03** | **0.04** | **0.05** | **0.06** | **0.07** | **0.08** | **0.09** |
| **-4.9** | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| **-4.8** | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| **-4.7** | 0.00001 | 0.00001 | 0.00001 | 0.00001 | 0.00001 | 0.00001 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| **-4.6** | 0.00001 | 0.00001 | 0.00001 | 0.00001 | 0.00001 | 0.00001 | 0.00001 | 0.00001 | 0.00001 | 0.00001 |
| **-4.5** | 0.00002 | 0.00002 | 0.00001 | 0.00001 | 0.00001 | 0.00001 | 0.00001 | 0.00001 | 0.00001 | 0.00001 |
| **-4.4** | 0.00002 | 0.00002 | 0.00002 | 0.00002 | 0.00002 | 0.00002 | 0.00002 | 0.00002 | 0.00002 | 0.00002 |
| **-4.3** | 0.00004 | 0.00004 | 0.00004 | 0.00003 | 0.00003 | 0.00003 | 0.00003 | 0.00003 | 0.00003 | 0.00003 |
| **-4.2** | 0.00006 | 0.00006 | 0.00005 | 0.00005 | 0.00005 | 0.00005 | 0.00005 | 0.00004 | 0.00004 | 0.00004 |
| **-4.1** | 0.00009 | 0.00009 | 0.00008 | 0.00008 | 0.00008 | 0.00007 | 0.00007 | 0.00007 | 0.00006 | 0.00006 |
| **-4.0** | 0.00013 | 0.00013 | 0.00012 | 0.00012 | 0.00011 | 0.00011 | 0.00011 | 0.00010 | 0.00010 | 0.00009 |
| **-3.9** | 0.00020 | 0.00019 | 0.00018 | 0.00018 | 0.00017 | 0.00016 | 0.00016 | 0.00015 | 0.00014 | 0.00014 |
| **-3.8** | 0.00029 | 0.00028 | 0.00027 | 0.00026 | 0.00025 | 0.00024 | 0.00023 | 0.00022 | 0.00021 | 0.00021 |
| **-3.7** | 0.00042 | 0.00041 | 0.00039 | 0.00038 | 0.00037 | 0.00035 | 0.00034 | 0.00033 | 0.00031 | 0.00030 |
| **-3.6** | 0.00061 | 0.00059 | 0.00057 | 0.00055 | 0.00053 | 0.00051 | 0.00049 | 0.00047 | 0.00046 | 0.00044 |
| **-3.5** | 0.00087 | 0.00084 | 0.00081 | 0.00079 | 0.00076 | 0.00073 | 0.00071 | 0.00068 | 0.00066 | 0.00063 |
| **-3.4** | 0.00123 | 0.00119 | 0.00115 | 0.00111 | 0.00107 | 0.00104 | 0.00100 | 0.00097 | 0.00094 | 0.00090 |
| **-3.3** | 0.00172 | 0.00167 | 0.00161 | 0.00156 | 0.00151 | 0.00146 | 0.00141 | 0.00136 | 0.00132 | 0.00127 |
| **-3.2** | 0.00238 | 0.00231 | 0.00224 | 0.00216 | 0.00210 | 0.00203 | 0.00196 | 0.00190 | 0.00184 | 0.00178 |
| **-3.1** | 0.00327 | 0.00317 | 0.00307 | 0.00298 | 0.00288 | 0.00279 | 0.00271 | 0.00262 | 0.00254 | 0.00246 |
| **-3.0** | 0.00443 | 0.00430 | 0.00417 | 0.00405 | 0.00393 | 0.00381 | 0.00370 | 0.00358 | 0.00348 | 0.00337 |
| **-2.9** | 0.00595 | 0.00578 | 0.00562 | 0.00545 | 0.00530 | 0.00514 | 0.00499 | 0.00485 | 0.00470 | 0.00457 |
| **-2.8** | 0.00792 | 0.00770 | 0.00748 | 0.00727 | 0.00707 | 0.00687 | 0.00668 | 0.00649 | 0.00631 | 0.00613 |
| **Z** | **0** | **0.01** | **0.02** | **0.03** | **0.04** | **0.05** | **0.06** | **0.07** | **0.08** | **0.09** |
| **-2.7** | 0.01042 | 0.01014 | 0.00987 | 0.00961 | 0.00935 | 0.00909 | 0.00885 | 0.00861 | 0.00837 | 0.00814 |
| **-2.6** | 0.01358 | 0.01323 | 0.01289 | 0.01256 | 0.01223 | 0.01191 | 0.01160 | 0.01130 | 0.01100 | 0.01071 |
| **-2.5** | 0.01753 | 0.01709 | 0.01667 | 0.01625 | 0.01585 | 0.01545 | 0.01506 | 0.01468 | 0.01431 | 0.01394 |
| **-2.4** | 0.02239 | 0.02186 | 0.02134 | 0.02083 | 0.02033 | 0.01984 | 0.01936 | 0.01888 | 0.01842 | 0.01797 |
| **-2.3** | 0.02833 | 0.02768 | 0.02705 | 0.02643 | 0.02582 | 0.02522 | 0.02463 | 0.02406 | 0.02349 | 0.02294 |
| **-2.2** | 0.03547 | 0.03470 | 0.03394 | 0.03319 | 0.03246 | 0.03174 | 0.03103 | 0.03034 | 0.02965 | 0.02898 |
| **-2.1** | 0.04398 | 0.04307 | 0.04217 | 0.04128 | 0.04041 | 0.03955 | 0.03871 | 0.03788 | 0.03706 | 0.03626 |
| **-2.0** | 0.05399 | 0.05292 | 0.05186 | 0.05082 | 0.04980 | 0.04879 | 0.04780 | 0.04682 | 0.04586 | 0.04491 |
| **-1.9** | 0.06562 | 0.06438 | 0.06316 | 0.06195 | 0.06077 | 0.05959 | 0.05844 | 0.05730 | 0.05618 | 0.05508 |
| **-1.8** | 0.07895 | 0.07754 | 0.07614 | 0.07477 | 0.07341 | 0.07206 | 0.07074 | 0.06943 | 0.06814 | 0.06687 |
| **-1.7** | 0.09405 | 0.09246 | 0.09089 | 0.08933 | 0.08780 | 0.08628 | 0.08478 | 0.08329 | 0.08183 | 0.08038 |
| **-1.6** | 0.11092 | 0.10915 | 0.10741 | 0.10567 | 0.10396 | 0.10226 | 0.10059 | 0.09893 | 0.09728 | 0.09566 |
| **-1.5** | 0.12952 | 0.12758 | 0.12566 | 0.12376 | 0.12188 | 0.12001 | 0.11816 | 0.11632 | 0.11450 | 0.11270 |
| **-1.4** | 0.14973 | 0.14764 | 0.14556 | 0.14350 | 0.14146 | 0.13943 | 0.13742 | 0.13542 | 0.13344 | 0.13147 |
| **-1.3** | 0.17137 | 0.16915 | 0.16694 | 0.16474 | 0.16256 | 0.16038 | 0.15822 | 0.15608 | 0.15395 | 0.15183 |
| **-1.2** | 0.19419 | 0.19186 | 0.18954 | 0.18724 | 0.18494 | 0.18265 | 0.18037 | 0.17810 | 0.17585 | 0.17360 |
| **-1.1** | 0.21785 | 0.21546 | 0.21307 | 0.21069 | 0.20831 | 0.20594 | 0.20357 | 0.20121 | 0.19886 | 0.19652 |
| **-1.0** | 0.24197 | 0.23955 | 0.23713 | 0.23471 | 0.23230 | 0.22988 | 0.22747 | 0.22506 | 0.22265 | 0.22025 |
| **-0.9** | 0.26609 | 0.26369 | 0.26129 | 0.25888 | 0.25647 | 0.25406 | 0.25164 | 0.24923 | 0.24681 | 0.24439 |
| **-0.8** | 0.28969 | 0.28737 | 0.28504 | 0.28269 | 0.28034 | 0.27798 | 0.27562 | 0.27324 | 0.27086 | 0.26848 |
| **-0.7** | 0.31225 | 0.31006 | 0.30785 | 0.30563 | 0.30339 | 0.30114 | 0.29887 | 0.29659 | 0.29431 | 0.29200 |
| **-0.6** | 0.33322 | 0.33121 | 0.32918 | 0.32713 | 0.32506 | 0.32297 | 0.32086 | 0.31874 | 0.31659 | 0.31443 |
| **-0.5** | 0.35207 | 0.35029 | 0.34849 | 0.34667 | 0.34482 | 0.34294 | 0.34105 | 0.33912 | 0.33718 | 0.33521 |
| **Z** | **0** | **0.01** | **0.02** | **0.03** | **0.04** | **0.05** | **0.06** | **0.07** | **0.08** | **0.09** |
| **-0.4** | 0.36827 | 0.36678 | 0.36526 | 0.36371 | 0.36213 | 0.36053 | 0.35889 | 0.35723 | 0.35553 | 0.35381 |
| **-0.3** | 0.38139 | 0.38023 | 0.37903 | 0.37780 | 0.37654 | 0.37524 | 0.37391 | 0.37255 | 0.37115 | 0.36973 |
| **-0.2** | 0.39104 | 0.39024 | 0.38940 | 0.38853 | 0.38762 | 0.38667 | 0.38568 | 0.38466 | 0.38361 | 0.38251 |
| **-0.1** | 0.39695 | 0.39654 | 0.39608 | 0.39559 | 0.39505 | 0.39448 | 0.39387 | 0.39322 | 0.39253 | 0.39181 |
| **-0.0** | 0.39894 | 0.39892 | 0.39886 | 0.39876 | 0.39862 | 0.39844 | 0.39822 | 0.39797 | 0.39767 | 0.39733 |
| **0.0** | 0.39894 | 0.39892 | 0.39886 | 0.39876 | 0.39862 | 0.39844 | 0.39822 | 0.39797 | 0.39767 | 0.39733 |
| **0.1** | 0.39695 | 0.39654 | 0.39608 | 0.39559 | 0.39505 | 0.39448 | 0.39387 | 0.39322 | 0.39253 | 0.39181 |
| **0.2** | 0.39104 | 0.39024 | 0.38940 | 0.38853 | 0.38762 | 0.38667 | 0.38568 | 0.38466 | 0.38361 | 0.38251 |
| **0.3** | 0.38139 | 0.38023 | 0.37903 | 0.37780 | 0.37654 | 0.37524 | 0.37391 | 0.37255 | 0.37115 | 0.36973 |
| **0.4** | 0.36827 | 0.36678 | 0.36526 | 0.36371 | 0.36213 | 0.36053 | 0.35889 | 0.35723 | 0.35553 | 0.35381 |
| **0.5** | 0.35207 | 0.35029 | 0.34849 | 0.34667 | 0.34482 | 0.34294 | 0.34105 | 0.33912 | 0.33718 | 0.33521 |
| **0.6** | 0.33322 | 0.33121 | 0.32918 | 0.32713 | 0.32506 | 0.32297 | 0.32086 | 0.31874 | 0.31659 | 0.31443 |
| **0.7** | 0.31225 | 0.31006 | 0.30785 | 0.30563 | 0.30339 | 0.30114 | 0.29887 | 0.29659 | 0.29431 | 0.29200 |
| **0.8** | 0.28969 | 0.28737 | 0.28504 | 0.28269 | 0.28034 | 0.27798 | 0.27562 | 0.27324 | 0.27086 | 0.26848 |
| **0.9** | 0.26609 | 0.26369 | 0.26129 | 0.25888 | 0.25647 | 0.25406 | 0.25164 | 0.24923 | 0.24681 | 0.24439 |
| **1.0** | 0.24197 | 0.23955 | 0.23713 | 0.23471 | 0.23230 | 0.22988 | 0.22747 | 0.22506 | 0.22265 | 0.22025 |
| **1.1** | 0.21785 | 0.21546 | 0.21307 | 0.21069 | 0.20831 | 0.20594 | 0.20357 | 0.20121 | 0.19886 | 0.19652 |
| **1.2** | 0.19419 | 0.19186 | 0.18954 | 0.18724 | 0.18494 | 0.18265 | 0.18037 | 0.17810 | 0.17585 | 0.17360 |
| **1.3** | 0.17137 | 0.16915 | 0.16694 | 0.16474 | 0.16256 | 0.16038 | 0.15822 | 0.15608 | 0.15395 | 0.15183 |
| **1.4** | 0.14973 | 0.14764 | 0.14556 | 0.14350 | 0.14146 | 0.13943 | 0.13742 | 0.13542 | 0.13344 | 0.13147 |
| **1.5** | 0.12952 | 0.12758 | 0.12566 | 0.12376 | 0.12188 | 0.12001 | 0.11816 | 0.11632 | 0.11450 | 0.11270 |
| **1.6** | 0.11092 | 0.10915 | 0.10741 | 0.10567 | 0.10396 | 0.10226 | 0.10059 | 0.09893 | 0.09728 | 0.09566 |
| **1.7** | 0.09405 | 0.09246 | 0.09089 | 0.08933 | 0.08780 | 0.08628 | 0.08478 | 0.08329 | 0.08183 | 0.08038 |
| **Z** | **0** | **0.01** | **0.02** | **0.03** | **0.04** | **0.05** | **0.06** | **0.07** | **0.08** | **0.09** |
| **1.8** | 0.07895 | 0.07754 | 0.07614 | 0.07477 | 0.07341 | 0.07206 | 0.07074 | 0.06943 | 0.06814 | 0.06687 |
| **1.9** | 0.06562 | 0.06438 | 0.06316 | 0.06195 | 0.06077 | 0.05959 | 0.05844 | 0.05730 | 0.05618 | 0.05508 |
| **2.0** | 0.05399 | 0.05292 | 0.05186 | 0.05082 | 0.04980 | 0.04879 | 0.04780 | 0.04682 | 0.04586 | 0.04491 |
| **2.1** | 0.04398 | 0.04307 | 0.04217 | 0.04128 | 0.04041 | 0.03955 | 0.03871 | 0.03788 | 0.03706 | 0.03626 |
| **2.2** | 0.03547 | 0.03470 | 0.03394 | 0.03319 | 0.03246 | 0.03174 | 0.03103 | 0.03034 | 0.02965 | 0.02898 |
| **2.3** | 0.02833 | 0.02768 | 0.02705 | 0.02643 | 0.02582 | 0.02522 | 0.02463 | 0.02406 | 0.02349 | 0.02294 |
| **2.4** | 0.02239 | 0.02186 | 0.02134 | 0.02083 | 0.02033 | 0.01984 | 0.01936 | 0.01888 | 0.01842 | 0.01797 |
| **2.5** | 0.01753 | 0.01709 | 0.01667 | 0.01625 | 0.01585 | 0.01545 | 0.01506 | 0.01468 | 0.01431 | 0.01394 |
| **2.6** | 0.01358 | 0.01323 | 0.01289 | 0.01256 | 0.01223 | 0.01191 | 0.01160 | 0.01130 | 0.01100 | 0.01071 |
| **2.7** | 0.01042 | 0.01014 | 0.00987 | 0.00961 | 0.00935 | 0.00909 | 0.00885 | 0.00861 | 0.00837 | 0.00814 |
| **2.8** | 0.00792 | 0.00770 | 0.00748 | 0.00727 | 0.00707 | 0.00687 | 0.00668 | 0.00649 | 0.00631 | 0.00613 |
| **2.9** | 0.00595 | 0.00578 | 0.00562 | 0.00545 | 0.00530 | 0.00514 | 0.00499 | 0.00485 | 0.00470 | 0.00457 |
| **3.0** | 0.00443 | 0.00430 | 0.00417 | 0.00405 | 0.00393 | 0.00381 | 0.00370 | 0.00358 | 0.00348 | 0.00337 |
| **3.1** | 0.00327 | 0.00317 | 0.00307 | 0.00298 | 0.00288 | 0.00279 | 0.00271 | 0.00262 | 0.00254 | 0.00246 |
| **3.2** | 0.00238 | 0.00231 | 0.00224 | 0.00216 | 0.00210 | 0.00203 | 0.00196 | 0.00190 | 0.00184 | 0.00178 |
| **3.3** | 0.00172 | 0.00167 | 0.00161 | 0.00156 | 0.00151 | 0.00146 | 0.00141 | 0.00136 | 0.00132 | 0.00127 |
| **3.4** | 0.00123 | 0.00119 | 0.00115 | 0.00111 | 0.00107 | 0.00104 | 0.00100 | 0.00097 | 0.00094 | 0.00090 |
| **3.5** | 0.00087 | 0.00084 | 0.00081 | 0.00079 | 0.00076 | 0.00073 | 0.00071 | 0.00068 | 0.00066 | 0.00063 |
| **3.6** | 0.00061 | 0.00059 | 0.00057 | 0.00055 | 0.00053 | 0.00051 | 0.00049 | 0.00047 | 0.00046 | 0.00044 |
| **3.7** | 0.00042 | 0.00041 | 0.00039 | 0.00038 | 0.00037 | 0.00035 | 0.00034 | 0.00033 | 0.00031 | 0.00030 |
| **3.8** | 0.00029 | 0.00028 | 0.00027 | 0.00026 | 0.00025 | 0.00024 | 0.00023 | 0.00022 | 0.00021 | 0.00021 |
| **3.9** | 0.00020 | 0.00019 | 0.00018 | 0.00018 | 0.00017 | 0.00016 | 0.00016 | 0.00015 | 0.00014 | 0.00014 |
| **4.0** | 0.00013 | 0.00013 | 0.00012 | 0.00012 | 0.00011 | 0.00011 | 0.00011 | 0.00010 | 0.00010 | 0.00009 |
| **Z** | **0** | **0.01** | **0.02** | **0.03** | **0.04** | **0.05** | **0.06** | **0.07** | **0.08** | **0.09** |
| **4.1** | 0.00009 | 0.00009 | 0.00008 | 0.00008 | 0.00008 | 0.00007 | 0.00007 | 0.00007 | 0.00006 | 0.00006 |
| **4.2** | 0.00006 | 0.00006 | 0.00005 | 0.00005 | 0.00005 | 0.00005 | 0.00005 | 0.00004 | 0.00004 | 0.00004 |
| **4.3** | 0.00004 | 0.00004 | 0.00004 | 0.00003 | 0.00003 | 0.00003 | 0.00003 | 0.00003 | 0.00003 | 0.00003 |
| **4.4** | 0.00002 | 0.00002 | 0.00002 | 0.00002 | 0.00002 | 0.00002 | 0.00002 | 0.00002 | 0.00002 | 0.00002 |
| **4.5** | 0.00002 | 0.00002 | 0.00001 | 0.00001 | 0.00001 | 0.00001 | 0.00001 | 0.00001 | 0.00001 | 0.00001 |
| **4.6** | 0.00001 | 0.00001 | 0.00001 | 0.00001 | 0.00001 | 0.00001 | 0.00001 | 0.00001 | 0.00001 | 0.00001 |
| **4.7** | 0.00001 | 0.00001 | 0.00001 | 0.00001 | 0.00001 | 0.00001 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| **4.8** | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |
| **4.9** | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 | 0.00000 |

**Specific Quantiles of Standard Normal Distribution**

**Values of Z against specific probabilities (Inverse Cumulative Standard Normal Curve)**

|  |  |
| --- | --- |
|  | **Z** |
| 0.0005 | -3.291 |
| 0.001 | -3.090 |
| 0.005 | -2.576 |
| 0.01 | -2.326 |
| 0.025 | -1.960 |
| 0.05 | -1.645 |
| 0.10 | -1.282 |
| 0.20 | -0.842 |
| 0.30 | -0.524 |
| 0.40 | -0.253 |
| 0.60 | 0.253 |
| 0.70 | 0.524 |
| 0.80 | 0.842 |
| 0.90 | 1.282 |
| 0.95 | 1.645 |
| 0.975 | 1.960 |
| 0.990 | 2.326 |
| 0.995 | 2.576 |
| 0.999 | 3.090 |
| 0.9995 | 3.291 |