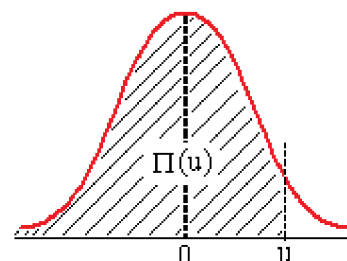


Table de Loi Normale

Fonction de répartition Π de la loi normale centrée
réduite : $U \rightarrow N(0, 1)$.

Probabilité de trouver une valeur inférieure à u .

$$\Pi(u) = P(U \leq u) \quad ; \quad \Pi(-u) = P(U \leq -u) = 1 - \Pi(u)$$



| u | 0.00 | 0.01 | 0.02 | 0.03 | 0.04 | 0.05 | 0.06 | 0.07 | 0.08 | 0.09 |
|-----|---------|---------|---------|---------|---------|---------|----------------|---------|---------|---------|
| 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 |
| 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 |

Exemple : $\Pi(1.26) = P(U \leq 1.26) = 0.89617 = 89.62\%$

Fractiles de la Loi Normale

$U \rightarrow N(0, 1)$.

Pour $P < 0.5$ (colonne de gauche et ligne supérieure). les fractiles sont négatifs.

Pour $P > 0.5$ (colonne de droite et ligne inférieure). les fractiles sont positifs.

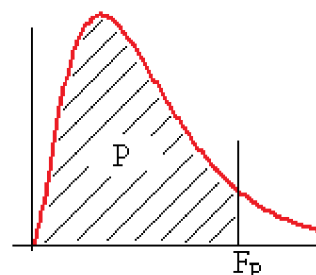
| P | 0 | 0.001 | 0.002 | 0.003 | 0.004 | 0.005 | 0.006 | 0.007 | 0.008 | 0.009 | 0.01 | |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|------|
| 0 | infini | 3.0902 | 2.8782 | 2.7478 | 2.6521 | 2.5758 | 2.5121 | 2.4573 | 2.4089 | 2.3656 | 2.3263 | 0.99 |
| 0.01 | 2.3263 | 2.2904 | 2.2571 | 2.2262 | 2.1973 | 2.1701 | 2.1444 | 2.1201 | 2.0969 | 2.0748 | 2.0537 | 0.98 |
| 0.02 | 2.0537 | 2.0335 | 2.0141 | 1.9954 | 1.9774 | 1.9600 | 1.9431 | 1.9268 | 1.9110 | 1.8957 | 1.8808 | 0.97 |
| 0.03 | 1.8808 | 1.8663 | 1.8522 | 1.8384 | 1.8250 | 1.8119 | 1.7991 | 1.7866 | 1.7744 | 1.7624 | 1.7507 | 0.96 |
| 0.04 | 1.7507 | 1.7392 | 1.7279 | 1.7169 | 1.7060 | 1.6954 | 1.6849 | 1.6747 | 1.6646 | 1.6546 | 1.6449 | 0.95 |
| 0.05 | 1.6449 | 1.6352 | 1.6258 | 1.6164 | 1.6072 | 1.5982 | 1.5893 | 1.5805 | 1.5718 | 1.5632 | 1.5548 | 0.94 |
| 0.06 | 1.5548 | 1.5464 | 1.5382 | 1.5301 | 1.5220 | 1.5141 | 1.5063 | 1.4985 | 1.4909 | 1.4833 | 1.4758 | 0.93 |
| 0.07 | 1.4758 | 1.4684 | 1.4611 | 1.4538 | 1.4466 | 1.4395 | 1.4325 | 1.4255 | 1.4187 | 1.4118 | 1.4051 | 0.92 |
| 0.08 | 1.4051 | 1.3984 | 1.3917 | 1.3852 | 1.3787 | 1.3722 | 1.3658 | 1.3595 | 1.3532 | 1.3469 | 1.3408 | 0.91 |
| 0.09 | 1.3408 | 1.3346 | 1.3285 | 1.3225 | 1.3165 | 1.3106 | 1.3047 | 1.2988 | 1.2930 | 1.2873 | 1.2816 | 0.90 |
| 0.10 | 1.2816 | 1.2759 | 1.2702 | 1.2646 | 1.2591 | 1.2536 | 1.2481 | 1.2426 | 1.2372 | 1.2319 | 1.2265 | 0.89 |
| 0.11 | 1.2265 | 1.2212 | 1.2160 | 1.2107 | 1.2055 | 1.2004 | 1.1952 | 1.1901 | 1.1850 | 1.1800 | 1.1750 | 0.88 |
| 0.12 | 1.1750 | 1.1700 | 1.1650 | 1.1601 | 1.1552 | 1.1503 | 1.1455 | 1.1407 | 1.1359 | 1.1311 | 1.1264 | 0.87 |
| 0.13 | 1.1264 | 1.1217 | 1.1170 | 1.1123 | 1.1077 | 1.1031 | 1.0985 | 1.0939 | 1.0893 | 1.0848 | 1.0803 | 0.86 |
| 0.14 | 1.0803 | 1.0758 | 1.0714 | 1.0669 | 1.0625 | 1.0581 | 1.0537 | 1.0494 | 1.0451 | 1.0407 | 1.0364 | 0.85 |
| 0.15 | 1.0364 | 1.0322 | 1.0279 | 1.0237 | 1.0194 | 1.0152 | 1.0110 | 1.0069 | 1.0027 | 0.9986 | 0.9945 | 0.84 |
| 0.16 | 0.9945 | 0.9904 | 0.9863 | 0.9822 | 0.9782 | 0.9741 | 0.9701 | 0.9661 | 0.9621 | 0.9581 | 0.9542 | 0.83 |
| 0.17 | 0.9542 | 0.9502 | 0.9463 | 0.9424 | 0.9385 | 0.9346 | 0.9307 | 0.9269 | 0.9230 | 0.9192 | 0.9154 | 0.82 |
| 0.18 | 0.9154 | 0.9116 | 0.9078 | 0.9040 | 0.9002 | 0.8965 | 0.8927 | 0.8890 | 0.8853 | 0.8816 | 0.8779 | 0.81 |
| 0.19 | 0.8779 | 0.8742 | 0.8706 | 0.8669 | 0.8632 | 0.8596 | 0.8560 | 0.8524 | 0.8488 | 0.8452 | 0.8416 | 0.80 |
| 0.20 | 0.8416 | 0.8381 | 0.8345 | 0.8310 | 0.8274 | 0.8239 | 0.8204 | 0.8169 | 0.8134 | 0.8099 | 0.8064 | 0.79 |
| 0.21 | 0.8064 | 0.8030 | 0.7995 | 0.7961 | 0.7926 | 0.7892 | 0.7858 | 0.7824 | 0.7790 | 0.7756 | 0.7722 | 0.78 |
| 0.22 | 0.7722 | 0.7688 | 0.7655 | 0.7621 | 0.7588 | 0.7554 | 0.7521 | 0.7488 | 0.7454 | 0.7421 | 0.7388 | 0.77 |
| 0.23 | 0.7388 | 0.7356 | 0.7323 | 0.7290 | 0.7257 | 0.7225 | 0.7192 | 0.7160 | 0.7128 | 0.7095 | 0.7063 | 0.76 |
| 0.24 | 0.7063 | 0.7031 | 0.6999 | 0.6967 | 0.6935 | 0.6903 | 0.6871 | 0.6840 | 0.6808 | 0.6776 | 0.6745 | 0.75 |
| 0.25 | 0.6745 | 0.6713 | 0.6682 | 0.6651 | 0.6620 | 0.6588 | 0.6557 | 0.6526 | 0.6495 | 0.6464 | 0.6433 | 0.74 |
| 0.26 | 0.6433 | 0.6403 | 0.6372 | 0.6341 | 0.6311 | 0.6280 | 0.6250 | 0.6219 | 0.6189 | 0.6158 | 0.6128 | 0.73 |
| 0.27 | 0.6128 | 0.6098 | 0.6068 | 0.6038 | 0.6008 | 0.5978 | 0.5948 | 0.5918 | 0.5888 | 0.5858 | 0.5828 | 0.72 |
| 0.28 | 0.5828 | 0.5799 | 0.5769 | 0.5740 | 0.5710 | 0.5681 | 0.5651 | 0.5622 | 0.5592 | 0.5563 | 0.5534 | 0.71 |
| 0.29 | 0.5534 | 0.5505 | 0.5476 | 0.5446 | 0.5417 | 0.5388 | 0.5359 | 0.5330 | 0.5302 | 0.5273 | 0.5244 | 0.70 |
| 0.30 | 0.5244 | 0.5215 | 0.5187 | 0.5158 | 0.5129 | 0.5101 | 0.5072 | 0.5044 | 0.5015 | 0.4987 | 0.4958 | 0.69 |
| 0.31 | 0.4958 | 0.4930 | 0.4902 | 0.4874 | 0.4845 | 0.4817 | 0.4789 | 0.4761 | 0.4733 | 0.4705 | 0.4677 | 0.68 |
| 0.32 | 0.4677 | 0.4649 | 0.4621 | 0.4593 | 0.4565 | 0.4538 | 0.4510 | 0.4482 | 0.4454 | 0.4427 | 0.4399 | 0.67 |
| 0.33 | 0.4399 | 0.4372 | 0.4344 | 0.4316 | 0.4289 | 0.4261 | 0.4234 | 0.4207 | 0.4179 | 0.4152 | 0.4125 | 0.66 |
| 0.34 | 0.4125 | 0.4097 | 0.4070 | 0.4043 | 0.4016 | 0.3989 | 0.3961 | 0.3934 | 0.3907 | 0.3880 | 0.3853 | 0.65 |
| 0.35 | 0.3853 | 0.3826 | 0.3799 | 0.3772 | 0.3745 | 0.3719 | 0.3692 | 0.3665 | 0.3638 | 0.3611 | 0.3585 | 0.64 |
| 0.36 | 0.3585 | 0.3558 | 0.3531 | 0.3505 | 0.3478 | 0.3451 | 0.3425 | 0.3398 | 0.3372 | 0.3345 | 0.3319 | 0.63 |
| 0.37 | 0.3319 | 0.3292 | 0.3266 | 0.3239 | 0.3213 | 0.3186 | 0.3160 | 0.3134 | 0.3107 | 0.3081 | 0.3055 | 0.62 |
| 0.38 | 0.3055 | 0.3029 | 0.3002 | 0.2976 | 0.2950 | 0.2924 | 0.2898 | 0.2871 | 0.2845 | 0.2819 | 0.2793 | 0.61 |
| 0.39 | 0.2793 | 0.2767 | 0.2741 | 0.2715 | 0.2689 | 0.2663 | 0.2637 | 0.2611 | 0.2585 | 0.2559 | 0.2533 | 0.60 |
| 0.40 | 0.2533 | 0.2508 | 0.2482 | 0.2456 | 0.2430 | 0.2404 | 0.2378 | 0.2353 | 0.2327 | 0.2301 | 0.2275 | 0.59 |
| 0.41 | 0.2275 | 0.2250 | 0.2224 | 0.2198 | 0.2173 | 0.2147 | 0.2121 | 0.2096 | 0.2070 | 0.2045 | 0.2019 | 0.58 |
| 0.42 | 0.2019 | 0.1993 | 0.1968 | 0.1942 | 0.1917 | 0.1891 | 0.1866 | 0.1840 | 0.1815 | 0.1789 | 0.1764 | 0.57 |
| 0.43 | 0.1764 | 0.1738 | 0.1713 | 0.1687 | 0.1662 | 0.1637 | 0.1611 | 0.1586 | 0.1560 | 0.1535 | 0.1510 | 0.56 |
| 0.44 | 0.1510 | 0.1484 | 0.1459 | 0.1434 | 0.1408 | 0.1383 | 0.1358 | 0.1332 | 0.1307 | 0.1282 | 0.1257 | 0.55 |
| 0.45 | 0.1257 | 0.1231 | 0.1206 | 0.1181 | 0.1156 | 0.1130 | 0.1105 | 0.1080 | 0.1055 | 0.1030 | 0.1004 | 0.54 |
| 0.46 | 0.1004 | 0.0979 | 0.0954 | 0.0929 | 0.0904 | 0.0878 | 0.0853 | 0.0828 | 0.0803 | 0.0778 | 0.0753 | 0.53 |
| 0.47 | 0.0753 | 0.0728 | 0.0702 | 0.0677 | 0.0652 | 0.0627 | 0.0602 | 0.0577 | 0.0552 | 0.0527 | 0.0502 | 0.52 |
| 0.48 | 0.0502 | 0.0476 | 0.0451 | 0.0426 | 0.0401 | 0.0376 | 0.0351 | 0.0326 | 0.0301 | 0.0276 | 0.0251 | 0.51 |
| 0.49 | 0.0251 | 0.0226 | 0.0201 | 0.0175 | 0.0150 | 0.0125 | 0.0100 | 0.0075 | 0.0050 | 0.0025 | 0.0000 | 0.50 |
| | 0.01 | 0.009 | 0.008 | 0.007 | 0.006 | 0.005 | 0.004 | 0.003 | 0.002 | 0.001 | 0 | P |

Exemples : $\Pi(u) = P(U \leq u) = P = 0.6340 \Rightarrow u = 0.3425$; $\Pi(u) = P(U \leq u) = P = 0.4020 \Rightarrow u = -0.2482$

1 : Fractiles de la loi du χ^2_v

Cette table donne les fractiles F_P de la loi de khi-deux

à v degrés de liberté : $P = P(\chi^2_v \leq F_P)$



| $v \quad P$ | 0.010 | 0.020 | 0.025 | 0.050 | 0.100 | 0.150 | 0.200 | 0.800 | 0.900 | 0.950 | 0.975 | 0.980 | 0.990 |
|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------------|--------|--------|--------|
| 1 | 0.000 | 0.001 | 0.001 | 0.004 | 0.016 | 0.036 | 0.064 | 1.642 | 2.706 | 3.841 | 5.024 | 5.412 | 6.64 |
| 2 | 0.020 | 0.040 | 0.051 | 0.103 | 0.211 | 0.325 | 0.446 | 3.219 | 4.605 | 5.991 | 7.378 | 7.824 | 9.21 |
| 3 | 0.115 | 0.185 | 0.216 | 0.352 | 0.584 | 0.798 | 1.005 | 4.642 | 6.251 | 7.815 | 9.348 | 9.837 | 11.35 |
| 4 | 0.297 | 0.429 | 0.484 | 0.711 | 1.064 | 1.366 | 1.649 | 5.989 | 7.779 | 9.488 | 11.143 | 11.668 | 13.28 |
| 5 | 0.554 | 0.752 | 0.831 | 1.145 | 1.610 | 1.994 | 2.343 | 7.289 | 9.236 | 11.070 | 12.833 | 13.388 | 15.09 |
| 6 | 0.872 | 1.134 | 1.237 | 1.635 | 2.204 | 2.661 | 3.070 | 8.558 | 10.645 | 12.592 | 14.449 | 15.033 | 16.81 |
| 7 | 1.239 | 1.564 | 1.690 | 2.167 | 2.833 | 3.358 | 3.822 | 9.803 | 12.017 | 14.067 | 16.013 | 16.622 | 18.48 |
| 8 | 1.646 | 2.032 | 2.180 | 2.733 | 3.490 | 4.078 | 4.594 | 11.030 | 13.362 | 15.507 | 17.535 | 18.168 | 20.09 |
| 9 | 2.088 | 2.532 | 2.700 | 3.325 | 4.168 | 4.817 | 5.380 | 12.242 | 14.684 | 16.919 | 19.023 | 19.679 | 21.67 |
| 10 | 2.558 | 3.059 | 3.247 | 3.940 | 4.865 | 5.570 | 6.179 | 13.442 | 15.987 | 18.307 | 20.483 | 21.161 | 23.21 |
| 11 | 3.053 | 3.609 | 3.816 | 4.575 | 5.578 | 6.336 | 6.989 | 14.631 | 17.275 | 19.675 | 21.920 | 22.618 | 24.73 |
| 12 | 3.571 | 4.178 | 4.404 | 5.226 | 6.304 | 7.114 | 7.807 | 15.812 | 18.549 | 21.026 | 23.337 | 24.054 | 26.22 |
| 13 | 4.107 | 4.765 | 5.009 | 5.892 | 7.042 | 7.901 | 8.634 | 16.985 | 19.812 | 22.362 | 24.736 | 25.472 | 27.69 |
| 14 | 4.660 | 5.368 | 5.629 | 6.571 | 7.790 | 8.696 | 9.467 | 18.151 | 21.064 | 23.685 | 26.119 | 26.873 | 29.14 |
| 15 | 5.229 | 5.985 | 6.262 | 7.261 | 8.547 | 9.499 | 10.307 | 19.311 | 22.307 | 24.996 | 27.488 | 28.259 | 30.58 |
| 16 | 5.812 | 6.614 | 6.908 | 7.962 | 9.312 | 10.309 | 11.152 | 20.465 | 23.542 | 26.296 | 28.845 | 29.633 | 32.00 |
| 17 | 6.408 | 7.255 | 7.564 | 8.672 | 10.085 | 11.125 | 12.002 | 21.615 | 24.769 | 27.587 | 30.191 | 30.995 | 33.41 |
| 18 | 7.015 | 7.906 | 8.231 | 9.390 | 10.865 | 11.946 | 12.857 | 22.760 | 25.989 | 28.869 | 31.526 | 32.346 | 34.81 |
| 19 | 7.633 | 8.567 | 8.907 | 10.117 | 11.651 | 12.773 | 13.716 | 23.900 | 27.204 | 30.144 | 32.852 | 33.687 | 36.19 |
| 20 | 8.260 | 9.237 | 9.591 | 10.851 | 12.443 | 13.604 | 14.578 | 25.038 | 28.412 | 31.410 | 34.170 | 35.020 | 37.57 |
| 21 | 8.897 | 9.915 | 10.283 | 11.591 | 13.240 | 14.439 | 15.445 | 26.171 | 29.615 | 32.671 | 35.479 | 36.343 | 38.93 |
| 22 | 9.542 | 10.600 | 10.982 | 12.338 | 14.041 | 15.279 | 16.314 | 27.301 | 30.813 | 33.924 | 36.781 | 37.659 | 40.29 |
| 23 | 10.196 | 11.293 | 11.689 | 13.091 | 14.848 | 16.122 | 17.187 | 28.429 | 32.007 | 35.172 | 38.076 | 38.968 | 41.64 |
| 24 | 10.856 | 11.992 | 12.401 | 13.848 | 15.659 | 16.969 | 18.062 | 29.553 | 33.196 | 36.415 | 39.364 | 40.270 | 42.98 |
| 25 | 11.524 | 12.697 | 13.120 | 14.611 | 16.473 | 17.818 | 18.940 | 30.675 | 34.382 | 37.652 | 40.646 | 41.566 | 44.31 |
| 26 | 12.198 | 13.409 | 13.844 | 15.379 | 17.292 | 18.671 | 19.820 | 31.795 | 35.563 | 38.885 | 41.923 | 42.856 | 45.64 |
| 27 | 12.879 | 14.125 | 14.573 | 16.151 | 18.114 | 19.527 | 20.703 | 32.912 | 36.741 | 40.113 | 43.195 | 44.140 | 46.96 |
| 28 | 13.565 | 14.847 | 15.308 | 16.928 | 18.939 | 20.386 | 21.588 | 34.027 | 37.916 | 41.337 | 44.461 | 45.419 | 48.28 |
| 29 | 14.256 | 15.574 | 16.047 | 17.708 | 19.768 | 21.247 | 22.475 | 35.139 | 39.087 | 42.557 | 45.722 | 46.693 | 49.59 |
| 30 | 14.953 | 16.306 | 16.791 | 18.493 | 20.599 | 22.110 | 23.364 | 36.250 | 40.256 | 43.773 | 46.979 | 47.962 | 50.89 |
| 40 | 22.164 | 23.838 | 24.433 | 26.509 | 29.051 | 30.856 | 32.345 | 47.269 | 51.805 | 55.758 | 59.342 | 60.436 | 63.69 |
| 50 | 29.707 | 31.664 | 32.357 | 34.764 | 37.689 | 39.754 | 41.449 | 58.164 | 63.167 | 67.505 | 71.420 | 72.613 | 76.15 |
| 60 | 37.485 | 39.699 | 40.482 | 43.188 | 46.459 | 48.759 | 50.641 | 68.972 | 74.397 | 79.082 | 83.298 | 84.580 | 88.38 |
| 70 | 45.442 | 47.893 | 48.758 | 51.739 | 55.329 | 57.844 | 59.898 | 79.715 | 85.527 | 90.531 | 95.023 | 96.388 | 100.42 |
| 80 | 53.540 | 56.213 | 57.153 | 60.391 | 64.278 | 66.994 | 69.207 | 90.405 | 96.578 | 101.88 | 106.63 | 108.07 | 112.33 |

Exemple : $v = 10$ d.d.l. $P = P(\chi^2_{10} \leq F_P) = 0.95 \Rightarrow F_P = 18.307$

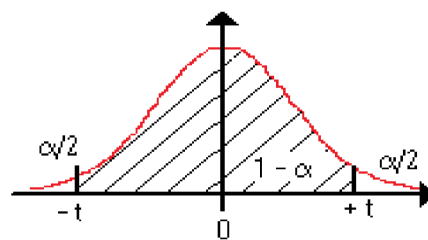
Approximation : Pour $v > 100$ d.l.l. $\chi^2(v) \cong N(v; \sqrt{2v})$ ou $\sqrt{2}\chi^2 - \sqrt{2v-1} \cong N(0,1)$

Table de la Loi de Student

Cette table donne les fractiles de la loi de Student
à v degrés de liberté : valeur t ayant la probabilité
 α d'être dépassée en valeur absolue :

$$P(|T_v| \leq t) = P(-t \leq T_v \leq t) = 1 - \alpha.$$

$$P(|T_v| > t) = 1 - P(|T_v| \leq t) = \alpha$$



| v | α | 0.90 | 0.80 | 0.70 | 0.60 | 0.50 | 0.40 | 0.30 | 0.20 | 0.10 | 0.05 | 0.02 | 0.01 | 0.005 | 0.001 |
|-------------------------|----------|--------|--------|--------|--------|--------|--------|--------|--------|---------------|---------------|--------|--------|--------|--------|
| 1 | | 0.1584 | 0.3249 | 0.5095 | 0.7265 | 1 | 1.3764 | 1.9626 | 3.0777 | 6.3137 | 12.706 | 31.821 | 63.656 | 127.32 | 636.58 |
| 2 | | 0.1421 | 0.2887 | 0.4447 | 0.6172 | 0.8165 | 1.0607 | 1.3862 | 1.8856 | 2.92 | 4.3027 | 6.9645 | 9.925 | 14.089 | 31.6 |
| 3 | | 0.1366 | 0.2767 | 0.4242 | 0.5844 | 0.7649 | 0.9785 | 1.2498 | 1.6377 | 2.3534 | 3.1824 | 4.5407 | 5.8408 | 7.4532 | 12.924 |
| 4 | | 0.1338 | 0.2707 | 0.4142 | 0.5686 | 0.7407 | 0.941 | 1.1896 | 1.5332 | 2.1318 | 2.7765 | 3.7469 | 4.6041 | 5.5975 | 8.6101 |
| 5 | | 0.1322 | 0.2672 | 0.4082 | 0.5594 | 0.7267 | 0.9195 | 1.1558 | 1.4759 | 2.015 | 2.5706 | 3.3649 | 4.0321 | 4.7733 | 6.8685 |
| 6 | | 0.1311 | 0.2648 | 0.4043 | 0.5534 | 0.7176 | 0.9057 | 1.1342 | 1.4398 | 1.9432 | 2.4469 | 3.1427 | 3.7074 | 4.3168 | 5.9587 |
| 7 | | 0.1303 | 0.2632 | 0.4015 | 0.5491 | 0.7111 | 0.896 | 1.1192 | 1.4149 | 1.8946 | 2.3646 | 2.9979 | 3.4995 | 4.0294 | 5.4081 |
| 8 | | 0.1297 | 0.2619 | 0.3995 | 0.5459 | 0.7064 | 0.8889 | 1.1081 | 1.3968 | 1.8595 | 2.306 | 2.8965 | 3.3554 | 3.8325 | 5.0414 |
| 9 | | 0.1293 | 0.261 | 0.3979 | 0.5435 | 0.7027 | 0.8834 | 1.0997 | 1.383 | 1.8331 | 2.2622 | 2.8214 | 3.2498 | 3.6896 | 4.7809 |
| 10 | | 0.1289 | 0.2602 | 0.3966 | 0.5415 | 0.6998 | 0.8791 | 1.0931 | 1.3722 | 1.8125 | 2.2281 | 2.7638 | 3.1693 | 3.5814 | 4.5868 |
| 11 | | 0.1286 | 0.2596 | 0.3956 | 0.5399 | 0.6974 | 0.8755 | 1.0877 | 1.3634 | 1.7959 | 2.201 | 2.7181 | 3.1058 | 3.4966 | 4.4369 |
| 12 | | 0.1283 | 0.259 | 0.3947 | 0.5386 | 0.6955 | 0.8726 | 1.0832 | 1.3562 | 1.7823 | 2.1788 | 2.681 | 3.0545 | 3.4284 | 4.3178 |
| 13 | | 0.1281 | 0.2586 | 0.394 | 0.5375 | 0.6938 | 0.8702 | 1.0795 | 1.3502 | 1.7709 | 2.1604 | 2.6503 | 3.0123 | 3.3725 | 4.2209 |
| 14 | | 0.128 | 0.2582 | 0.3933 | 0.5366 | 0.6924 | 0.8681 | 1.0763 | 1.345 | 1.7613 | 2.1448 | 2.6245 | 2.9768 | 3.3257 | 4.1403 |
| 15 | | 0.1278 | 0.2579 | 0.3928 | 0.5357 | 0.6912 | 0.8662 | 1.0735 | 1.3406 | 1.7531 | 2.1315 | 2.6025 | 2.9467 | 3.286 | 4.0728 |
| 16 | | 0.1277 | 0.2576 | 0.3923 | 0.535 | 0.6901 | 0.8647 | 1.0711 | 1.3368 | 1.7459 | 2.1199 | 2.5835 | 2.9208 | 3.252 | 4.0149 |
| 17 | | 0.1276 | 0.2573 | 0.3919 | 0.5344 | 0.6892 | 0.8633 | 1.069 | 1.3334 | 1.7396 | 2.1098 | 2.5669 | 2.8982 | 3.2224 | 3.9651 |
| 18 | | 0.1274 | 0.2571 | 0.3915 | 0.5338 | 0.6884 | 0.862 | 1.0672 | 1.3304 | 1.7341 | 2.1009 | 2.5524 | 2.8784 | 3.1966 | 3.9217 |
| 19 | | 0.1274 | 0.2569 | 0.3912 | 0.5333 | 0.6876 | 0.861 | 1.0655 | 1.3277 | 1.7291 | 2.093 | 2.5395 | 2.8609 | 3.1737 | 3.8833 |
| 20 | | 0.1273 | 0.2567 | 0.3909 | 0.5329 | 0.687 | 0.86 | 1.064 | 1.3253 | 1.7247 | 2.086 | 2.528 | 2.8453 | 3.1534 | 3.8496 |
| 21 | | 0.1272 | 0.2566 | 0.3906 | 0.5325 | 0.6864 | 0.8591 | 1.0627 | 1.3232 | 1.7207 | 2.0796 | 2.5176 | 2.8314 | 3.1352 | 3.8193 |
| 22 | | 0.1271 | 0.2564 | 0.3904 | 0.5321 | 0.6858 | 0.8583 | 1.0614 | 1.3212 | 1.7171 | 2.0739 | 2.5083 | 2.8188 | 3.1188 | 3.7922 |
| 23 | | 0.1271 | 0.2563 | 0.3902 | 0.5317 | 0.6853 | 0.8575 | 1.0603 | 1.3195 | 1.7139 | 2.0687 | 2.4999 | 2.8073 | 3.104 | 3.7676 |
| 24 | | 0.127 | 0.2562 | 0.39 | 0.5314 | 0.6848 | 0.8569 | 1.0593 | 1.3178 | 1.7109 | 2.0639 | 2.4922 | 2.797 | 3.0905 | 3.7454 |
| 25 | | 0.1269 | 0.2561 | 0.3898 | 0.5312 | 0.6844 | 0.8562 | 1.0584 | 1.3163 | 1.7081 | 2.0595 | 2.4851 | 2.7874 | 3.0782 | 3.7251 |
| 26 | | 0.1269 | 0.256 | 0.3896 | 0.5309 | 0.684 | 0.8557 | 1.0575 | 1.315 | 1.7056 | 2.0555 | 2.4786 | 2.7787 | 3.0669 | 3.7067 |
| 27 | | 0.1268 | 0.2559 | 0.3894 | 0.5306 | 0.6837 | 0.8551 | 1.0567 | 1.3137 | 1.7033 | 2.0518 | 2.4727 | 2.7707 | 3.0565 | 3.6895 |
| 28 | | 0.1268 | 0.2558 | 0.3893 | 0.5304 | 0.6834 | 0.8546 | 1.056 | 1.3125 | 1.7011 | 2.0484 | 2.4671 | 2.7633 | 3.047 | 3.6739 |
| 29 | | 0.1268 | 0.2557 | 0.3892 | 0.5302 | 0.683 | 0.8542 | 1.0553 | 1.3114 | 1.6991 | 2.0452 | 2.462 | 2.7564 | 3.038 | 3.6595 |
| 30 | | 0.1267 | 0.2556 | 0.389 | 0.53 | 0.6828 | 0.8538 | 1.0547 | 1.3104 | 1.6973 | 2.0423 | 2.4573 | 2.75 | 3.0298 | 3.646 |
| 50 | | 0.1263 | 0.2547 | 0.3875 | 0.5278 | 0.6794 | 0.8489 | 1.0473 | 1.2987 | 1.6759 | 2.0086 | 2.4033 | 2.6778 | 2.937 | 3.496 |
| 60 | | 0.1262 | 0.2545 | 0.3872 | 0.5272 | 0.6786 | 0.8477 | 1.0455 | 1.2958 | 1.6706 | 2.0003 | 2.3901 | 2.6603 | 2.9146 | 3.4602 |
| 70 | | 0.1261 | 0.2543 | 0.3869 | 0.5268 | 0.678 | 0.8468 | 1.0442 | 1.2938 | 1.6669 | 1.9944 | 2.3808 | 2.6479 | 2.8987 | 3.435 |
| 80 | | 0.1261 | 0.2542 | 0.3867 | 0.5265 | 0.6776 | 0.8461 | 1.0432 | 1.2922 | 1.6641 | 1.9901 | 2.3739 | 2.6387 | 2.887 | 3.4164 |
| infini (loi normale) | | 0.1257 | 0.2533 | 0.3853 | 0.5244 | 0.6744 | 0.8416 | 1.0364 | 1.2816 | 1.6449 | 1.96 | 2.3264 | 2.5759 | 2.8072 | 3.2908 |

Exemples : $v = 10$ d.d.l. $P(|T_{10}| \leq t) = 0.95 \Rightarrow t = \pm 2.2281$

$P(T_{10} \leq t) = 0.95 \Rightarrow t = + 1.8125$