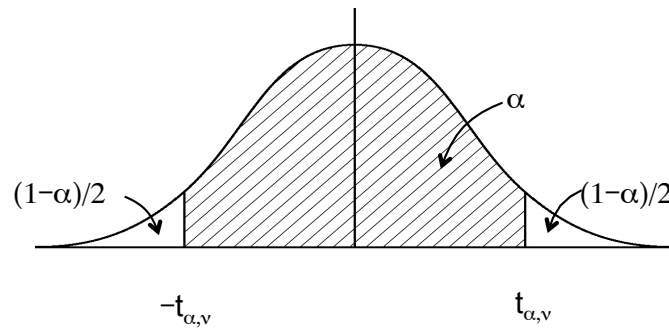


**Percentile Values ($t_{\alpha,v}$) for the t Distribution with v Degrees of Freedom
(Shaded Area = α)**



| v | α | | | | | | | | | |
|------|----------|---------|---------|---------|--------|--------|--------|--------|--------|--------|
| | 0.995 | 0.99 | 0.975 | 0.95 | 0.9 | 0.8 | 0.75 | 0.7 | 0.6 | 0.55 |
| 1 | 127.3213 | 63.6567 | 25.4517 | 12.7062 | 6.3138 | 3.0777 | 2.4142 | 1.9626 | 1.3764 | 1.1708 |
| 2 | 14.0890 | 9.9248 | 6.2053 | 4.3027 | 2.9200 | 1.8856 | 1.6036 | 1.3862 | 1.0607 | 0.9313 |
| 3 | 7.4533 | 5.8409 | 4.1765 | 3.1824 | 2.3534 | 1.6377 | 1.4226 | 1.2498 | 0.9785 | 0.8664 |
| 4 | 5.5976 | 4.6041 | 3.4954 | 2.7764 | 2.1318 | 1.5332 | 1.3444 | 1.1896 | 0.9410 | 0.8364 |
| 5 | 4.7733 | 4.0321 | 3.1634 | 2.5706 | 2.0150 | 1.4759 | 1.3009 | 1.1558 | 0.9195 | 0.8191 |
| 6 | 4.3168 | 3.7074 | 2.9687 | 2.4469 | 1.9432 | 1.4398 | 1.2733 | 1.1342 | 0.9057 | 0.8079 |
| 7 | 4.0293 | 3.4995 | 2.8412 | 2.3646 | 1.8946 | 1.4149 | 1.2543 | 1.1192 | 0.8960 | 0.8000 |
| 8 | 3.8325 | 3.3554 | 2.7515 | 2.3060 | 1.8595 | 1.3968 | 1.2403 | 1.1081 | 0.8889 | 0.7942 |
| 9 | 3.6897 | 3.2498 | 2.6850 | 2.2622 | 1.8331 | 1.3830 | 1.2297 | 1.0997 | 0.8834 | 0.7897 |
| 10 | 3.5814 | 3.1693 | 2.6338 | 2.2281 | 1.8125 | 1.3722 | 1.2213 | 1.0931 | 0.8791 | 0.7862 |
| 11 | 3.4966 | 3.1058 | 2.5931 | 2.2010 | 1.7959 | 1.3634 | 1.2145 | 1.0877 | 0.8755 | 0.7833 |
| 12 | 3.4284 | 3.0545 | 2.5600 | 2.1788 | 1.7823 | 1.3562 | 1.2089 | 1.0832 | 0.8726 | 0.7809 |
| 13 | 3.3725 | 3.0123 | 2.5326 | 2.1604 | 1.7709 | 1.3502 | 1.2041 | 1.0795 | 0.8702 | 0.7789 |
| 14 | 3.3257 | 2.9768 | 2.5096 | 2.1448 | 1.7613 | 1.3450 | 1.2001 | 1.0763 | 0.8681 | 0.7772 |
| 15 | 3.2860 | 2.9467 | 2.4899 | 2.1314 | 1.7531 | 1.3406 | 1.1967 | 1.0735 | 0.8662 | 0.7757 |
| 16 | 3.2520 | 2.9208 | 2.4729 | 2.1199 | 1.7459 | 1.3368 | 1.1937 | 1.0711 | 0.8647 | 0.7744 |
| 17 | 3.2224 | 2.8982 | 2.4581 | 2.1098 | 1.7396 | 1.3334 | 1.1910 | 1.0690 | 0.8633 | 0.7732 |
| 18 | 3.1966 | 2.8784 | 2.4450 | 2.1009 | 1.7341 | 1.3304 | 1.1887 | 1.0672 | 0.8620 | 0.7722 |
| 19 | 3.1737 | 2.8609 | 2.4334 | 2.0930 | 1.7291 | 1.3277 | 1.1866 | 1.0655 | 0.8610 | 0.7713 |
| 20 | 3.1534 | 2.8453 | 2.4231 | 2.0860 | 1.7247 | 1.3253 | 1.1848 | 1.0640 | 0.8600 | 0.7705 |
| 21 | 3.1352 | 2.8314 | 2.4138 | 2.0796 | 1.7207 | 1.3232 | 1.1831 | 1.0627 | 0.8591 | 0.7698 |
| 22 | 3.1188 | 2.8188 | 2.4055 | 2.0739 | 1.7171 | 1.3212 | 1.1815 | 1.0614 | 0.8583 | 0.7691 |
| 23 | 3.1040 | 2.8073 | 2.3979 | 2.0687 | 1.7139 | 1.3195 | 1.1802 | 1.0603 | 0.8575 | 0.7685 |
| 24 | 3.0905 | 2.7969 | 2.3909 | 2.0639 | 1.7109 | 1.3178 | 1.1789 | 1.0593 | 0.8569 | 0.7680 |
| 25 | 3.0782 | 2.7874 | 2.3846 | 2.0595 | 1.7081 | 1.3163 | 1.1777 | 1.0584 | 0.8562 | 0.7675 |
| 26 | 3.0669 | 2.7787 | 2.3788 | 2.0555 | 1.7056 | 1.3150 | 1.1766 | 1.0575 | 0.8557 | 0.7670 |
| 27 | 3.0565 | 2.7707 | 2.3734 | 2.0518 | 1.7033 | 1.3137 | 1.1756 | 1.0567 | 0.8551 | 0.7665 |
| 28 | 3.0469 | 2.7633 | 2.3685 | 2.0484 | 1.7011 | 1.3125 | 1.1747 | 1.0560 | 0.8546 | 0.7661 |
| 29 | 3.0380 | 2.7564 | 2.3638 | 2.0452 | 1.6991 | 1.3114 | 1.1739 | 1.0553 | 0.8542 | 0.7658 |
| 30 | 3.0298 | 2.7500 | 2.3596 | 2.0423 | 1.6973 | 1.3104 | 1.1731 | 1.0547 | 0.8538 | 0.7654 |
| 40 | 2.9712 | 2.7045 | 2.3289 | 2.0211 | 1.6839 | 1.3031 | 1.1673 | 1.0500 | 0.8507 | 0.7629 |
| 50 | 2.9370 | 2.6778 | 2.3109 | 2.0086 | 1.6759 | 1.2987 | 1.1639 | 1.0473 | 0.8489 | 0.7614 |
| 80 | 2.8870 | 2.6387 | 2.2844 | 1.9901 | 1.6641 | 1.2922 | 1.1588 | 1.0432 | 0.8461 | 0.7591 |
| 100 | 2.8707 | 2.6259 | 2.2757 | 1.9840 | 1.6602 | 1.2901 | 1.1571 | 1.0418 | 0.8452 | 0.7584 |
| 200 | 2.8385 | 2.6006 | 2.2584 | 1.9719 | 1.6525 | 1.2858 | 1.1537 | 1.0391 | 0.8434 | 0.7569 |
| 300 | 2.8279 | 2.5923 | 2.2527 | 1.9679 | 1.6499 | 1.2844 | 1.1526 | 1.0382 | 0.8428 | 0.7564 |
| 400 | 2.8227 | 2.5882 | 2.2499 | 1.9659 | 1.6487 | 1.2837 | 1.1520 | 1.0378 | 0.8425 | 0.7562 |
| 600 | 2.8175 | 2.5840 | 2.2470 | 1.9639 | 1.6474 | 1.2830 | 1.1515 | 1.0373 | 0.8422 | 0.7559 |
| 1000 | 2.8133 | 2.5808 | 2.2448 | 1.9623 | 1.6464 | 1.2824 | 1.1510 | 1.0370 | 0.8420 | 0.7557 |