# *t*-distribution Table

| ***t*-distribution 1-tailed α** |
| --- |
| **df** | **0.05** | **0.025** | **0.01** | **0.005** |
| **1** | 6.314 | 12.706 | 31.821 | 63.657 |
| **2** | 2.920 | 4.303 | 6.965 | 9.925 |
| **3** | 2.353 | 3.182 | 4.541 | 5.841 |
| **4** | 2.132 | 2.776 | 3.747 | 4.604 |
| **5** | 2.015 | 2.571 | 3.365 | 4.032 |
| **6** | 1.943 | 2.447 | 3.143 | 3.707 |
| **7** | 1.895 | 2.365 | 2.998 | 3.499 |
| **8** | 1.860 | 2.306 | 2.896 | 3.355 |
| **9** | 1.833 | 2.262 | 2.821 | 3.250 |
| **10** | 1.812 | 2.228 | 2.764 | 3.169 |
| **11** | 1.796 | 2.201 | 2.718 | 3.106 |
| **12** | 1.782 | 2.179 | 2.681 | 3.055 |
| **13** | 1.771 | 2.160 | 2.650 | 3.012 |
| **14** | 1.761 | 2.145 | 2.624 | 2.977 |
| **15** | 1.753 | 2.131 | 2.602 | 2.947 |
| **16** | 1.746 | 2.120 | 2.583 | 2.921 |
| **17** | 1.740 | 2.110 | 2.567 | 2.898 |
| **18** | 1.734 | 2.101 | 2.552 | 2.878 |
| **19** | 1.729 | 2.093 | 2.539 | 2.861 |
| **20** | 1.725 | 2.086 | 2.528 | 2.845 |
| **21** | 1.721 | 2.080 | 2.518 | 2.831 |
| **22** | 1.717 | 2.074 | 2.508 | 2.819 |
| **23** | 1.714 | 2.069 | 2.500 | 2.807 |
| **24** | 1.711 | 2.064 | 2.492 | 2.797 |
| **25** | 1.708 | 2.060 | 2.485 | 2.787 |
| **26** | 1.706 | 2.056 | 2.479 | 2.779 |
| **27** | 1.703 | 2.052 | 2.473 | 2.771 |
| **28** | 1.701 | 2.048 | 2.467 | 2.763 |
| **29** | 1.699 | 2.045 | 2.462 | 2.756 |
| **30** | 1.697 | 2.042 | 2.457 | 2.750 |
| **31** | 1.696 | 2.040 | 2.453 | 2.744 |
| **32** | 1.694 | 2.037 | 2.449 | 2.738 |
| **33** | 1.692 | 2.035 | 2.445 | 2.733 |
| **34** | 1.691 | 2.032 | 2.441 | 2.728 |
| **35** | 1.690 | 2.030 | 2.438 | 2.724 |
| **36** | 1.688 | 2.028 | 2.434 | 2.719 |
| **37** | 1.687 | 2.026 | 2.431 | 2.715 |
| **38** | 1.686 | 2.024 | 2.429 | 2.712 |
| **39** | 1.685 | 2.023 | 2.426 | 2.708 |
| **40** | 1.684 | 2.021 | 2.423 | 2.704 |
| **50** | 1.676 | 2.009 | 2.403 | 2.678 |
| **60** | 1.671 | 2.000 | 2.390 | 2.660 |
| **70** | 1.667 | 1.994 | 2.381 | 2.648 |
| **80** | 1.664 | 1.990 | 2.374 | 2.639 |
| **90** | 1.662 | 1.987 | 2.368 | 2.632 |
| **100** | 1.660 | 1.984 | 2.364 | 2.626 |
| **z** | 1.645 | 1.960 | 2.326 | 2.576 |

| ***t*-distribution 2-tailed α** |
| --- |
| **df** | **0.10** | **0.05** | **0.02** | **0.01** |
| **1** | 6.314 | 12.706 | 31.821 | 63.657 |
| **2** | 2.920 | 4.303 | 6.965 | 9.925 |
| **3** | 2.353 | 3.182 | 4.541 | 5.841 |
| **4** | 2.132 | 2.776 | 3.747 | 4.604 |
| **5** | 2.015 | 2.571 | 3.365 | 4.032 |
| **6** | 1.943 | 2.447 | 3.143 | 3.707 |
| **7** | 1.895 | 2.365 | 2.998 | 3.499 |
| **8** | 1.860 | 2.306 | 2.896 | 3.355 |
| **9** | 1.833 | 2.262 | 2.821 | 3.250 |
| **10** | 1.812 | 2.228 | 2.764 | 3.169 |
| **11** | 1.796 | 2.201 | 2.718 | 3.106 |
| **12** | 1.782 | 2.179 | 2.681 | 3.055 |
| **13** | 1.771 | 2.160 | 2.650 | 3.012 |
| **14** | 1.761 | 2.145 | 2.624 | 2.977 |
| **15** | 1.753 | 2.131 | 2.602 | 2.947 |
| **16** | 1.746 | 2.120 | 2.583 | 2.921 |
| **17** | 1.740 | 2.110 | 2.567 | 2.898 |
| **18** | 1.734 | 2.101 | 2.552 | 2.878 |
| **19** | 1.729 | 2.093 | 2.539 | 2.861 |
| **20** | 1.725 | 2.086 | 2.528 | 2.845 |
| **21** | 1.721 | 2.080 | 2.518 | 2.831 |
| **22** | 1.717 | 2.074 | 2.508 | 2.819 |
| **23** | 1.714 | 2.069 | 2.500 | 2.807 |
| **24** | 1.711 | 2.064 | 2.492 | 2.797 |
| **25** | 1.708 | 2.060 | 2.485 | 2.787 |
| **26** | 1.706 | 2.056 | 2.479 | 2.779 |
| **27** | 1.703 | 2.052 | 2.473 | 2.771 |
| **28** | 1.701 | 2.048 | 2.467 | 2.763 |
| **29** | 1.699 | 2.045 | 2.462 | 2.756 |
| **30** | 1.697 | 2.042 | 2.457 | 2.750 |
| **31** | 1.696 | 2.040 | 2.453 | 2.744 |
| **32** | 1.694 | 2.037 | 2.449 | 2.738 |
| **33** | 1.692 | 2.035 | 2.445 | 2.733 |
| **34** | 1.691 | 2.032 | 2.441 | 2.728 |
| **35** | 1.690 | 2.030 | 2.438 | 2.724 |
| **36** | 1.688 | 2.028 | 2.434 | 2.719 |
| **37** | 1.687 | 2.026 | 2.431 | 2.715 |
| **38** | 1.686 | 2.024 | 2.429 | 2.712 |
| **39** | 1.685 | 2.023 | 2.426 | 2.708 |
| **40** | 1.684 | 2.021 | 2.423 | 2.704 |
| **50** | 1.676 | 2.009 | 2.403 | 2.678 |
| **60** | 1.671 | 2.000 | 2.390 | 2.660 |
| **70** | 1.667 | 1.994 | 2.381 | 2.648 |
| **80** | 1.664 | 1.990 | 2.374 | 2.639 |
| **90** | 1.662 | 1.987 | 2.368 | 2.632 |
| **100** | 1.660 | 1.984 | 2.364 | 2.626 |
| **z** | 1.645 | 1.960 | 2.326 | 2.576 |