## Percentiles of Student's t distribution

| one tail <br> two tails |  | 0.100 | 0.050 | 0.025 | 0.010 |
| ---: | ---: | ---: | ---: | ---: | ---: |
| df 1 | 3.08 | 6.31 | 12.71 | 31.82 | 63.66 |
|  | 2 | 1.89 | 2.92 | 4.30 | 6.96 |
| 9.92 |  |  |  |  |  |
| 3 | 1.64 | 2.35 | 3.18 | 4.54 | 5.84 |
| 4 | 1.53 | 2.13 | 2.78 | 3.75 | 4.60 |
| 5 | 1.48 | 2.02 | 2.57 | 3.36 | 4.03 |
| 6 | 1.44 | 1.94 | 2.45 | 3.14 | 3.71 |
| 7 | 1.41 | 1.89 | 2.36 | 3.00 | 3.50 |
| 8 | 1.40 | 1.86 | 2.31 | 2.90 | 3.36 |
| 9 | 1.38 | 1.83 | 2.26 | 2.82 | 3.25 |
| 10 | 1.37 | 1.81 | 2.23 | 2.76 | 3.17 |
| 11 | 1.36 | 1.80 | 2.20 | 2.72 | 3.11 |
| 12 | 1.36 | 1.78 | 2.18 | 2.68 | 3.05 |
| 13 | 1.35 | 1.77 | 2.16 | 2.65 | 3.01 |
| 14 | 1.35 | 1.76 | 2.14 | 2.62 | 2.98 |
| 15 | 1.34 | 1.75 | 2.13 | 2.60 | 2.95 |
| 16 | 1.34 | 1.75 | 2.12 | 2.58 | 2.92 |
| 17 | 1.33 | 1.74 | 2.11 | 2.57 | 2.90 |
| 18 | 1.33 | 1.73 | 2.10 | 2.55 | 2.88 |
| 19 | 1.33 | 1.73 | 2.09 | 2.54 | 2.86 |
| 20 | 1.33 | 1.72 | 2.09 | 2.53 | 2.85 |
| 21 | 1.32 | 1.72 | 2.08 | 2.52 | 2.83 |
| 22 | 1.32 | 1.72 | 2.07 | 2.51 | 2.82 |
| 23 | 1.32 | 1.71 | 2.07 | 2.50 | 2.81 |
| 24 | 1.32 | 1.71 | 2.06 | 2.49 | 2.80 |
| 25 | 1.32 | 1.71 | 2.06 | 2.49 | 2.79 |
| 26 | 1.31 | 1.71 | 2.06 | 2.48 | 2.78 |
| 27 | 1.31 | 1.70 | 2.05 | 2.47 | 2.77 |
| 28 | 1.31 | 1.70 | 2.05 | 2.47 | 2.76 |
| 29 | 1.31 | 1.70 | 2.05 | 2.46 | 2.76 |
| 30 | 1.31 | 1.70 | 2.04 | 2.46 | 2.75 |
|  |  |  |  |  |  |


| one tail | 0.100 | 0.050 | 0.025 | 0.010 | 0.005 |
| ---: | ---: | ---: | ---: | ---: | ---: |
| two tails | 0.200 | 0.100 | 0.050 | 0.020 | 0.010 |
| df 31 | 1.31 | 1.70 | 2.04 | 2.45 | 2.74 |
| 32 | 1.31 | 1.69 | 2.04 | 2.45 | 2.74 |
| 33 | 1.31 | 1.69 | 2.03 | 2.44 | 2.73 |
| 34 | 1.31 | 1.69 | 2.03 | 2.44 | 2.73 |
| 35 | 1.31 | 1.69 | 2.03 | 2.44 | 2.72 |
| 36 | 1.31 | 1.69 | 2.03 | 2.43 | 2.72 |
| 37 | 1.30 | 1.69 | 2.03 | 2.43 | 2.72 |
| 38 | 1.30 | 1.69 | 2.02 | 2.43 | 2.71 |
| 39 | 1.30 | 1.68 | 2.02 | 2.43 | 2.71 |
| 40 | 1.30 | 1.68 | 2.02 | 2.42 | 2.70 |
| 41 | 1.30 | 1.68 | 2.02 | 2.42 | 2.70 |
| 42 | 1.30 | 1.68 | 2.02 | 2.42 | 2.70 |
| 43 | 1.30 | 1.68 | 2.02 | 2.42 | 2.70 |
| 44 | 1.30 | 1.68 | 2.02 | 2.41 | 2.69 |
| 45 | 1.30 | 1.68 | 2.01 | 2.41 | 2.69 |
| 46 | 1.30 | 1.68 | 2.01 | 2.41 | 2.69 |
| 47 | 1.30 | 1.68 | 2.01 | 2.41 | 2.68 |
| 48 | 1.30 | 1.68 | 2.01 | 2.41 | 2.68 |
| 49 | 1.30 | 1.68 | 2.01 | 2.40 | 2.68 |
| 50 | 1.30 | 1.68 | 2.01 | 2.40 | 2.68 |
| 60 | 1.30 | 1.67 | 2.00 | 2.39 | 2.66 |
| 70 | 1.29 | 1.67 | 1.99 | 2.38 | 2.65 |
| 80 | 1.29 | 1.66 | 1.99 | 2.37 | 2.64 |
| 90 | 1.29 | 1.66 | 1.99 | 2.37 | 2.63 |
| 100 | 1.29 | 1.66 | 1.98 | 2.36 | 2.63 |
| 150 | 1.29 | 1.66 | 1.98 | 2.35 | 2.61 |
| 200 | 1.29 | 1.65 | 1.97 | 2.35 | 2.60 |
| 300 | 1.28 | 1.65 | 1.97 | 2.34 | 2.59 |
| 400 | 1.28 | 1.65 | 1.97 | 2.34 | 2.59 |
| 500 | 1.28 | 1.65 | 1.96 | 2.33 | 2.59 |
| $\infty$ | 1.28 | 1.65 | 1.96 | 2.33 | 2.58 |
|  |  |  |  |  |  |

