

# t Table

| cum. prob | <i>t</i> <sub>.50</sub> | <i>t</i> <sub>.75</sub> | <i>t</i> <sub>.80</sub> | <i>t</i> <sub>.85</sub> | <i>t</i> <sub>.90</sub> | <i>t</i> <sub>.95</sub> | <i>t</i> <sub>.975</sub> | <i>t</i> <sub>.99</sub> | <i>t</i> <sub>.995</sub> | <i>t</i> <sub>.999</sub> | <i>t</i> <sub>.9995</sub> |
|-----------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|--------------------------|-------------------------|--------------------------|--------------------------|---------------------------|
| one-tail  | 0.50                    | 0.25                    | 0.20                    | 0.15                    | 0.10                    | 0.05                    | 0.025                    | 0.01                    | 0.005                    | 0.001                    | 0.0005                    |
| two-tails | 1.00                    | 0.50                    | 0.40                    | 0.30                    | 0.20                    | 0.10                    | 0.05                     | 0.02                    | 0.01                     | 0.002                    | 0.001                     |
| df        |                         |                         |                         |                         |                         |                         |                          |                         |                          |                          |                           |
| 1         | 0.000                   | 1.000                   | 1.376                   | 1.963                   | 3.078                   | 6.314                   | 12.71                    | 31.82                   | 63.66                    | 318.31                   | 636.62                    |
| 2         | 0.000                   | 0.816                   | 1.061                   | 1.386                   | 1.886                   | 2.920                   | 4.303                    | 6.965                   | 9.925                    | 22.327                   | 31.599                    |
| 3         | 0.000                   | 0.765                   | 0.978                   | 1.250                   | 1.638                   | 2.353                   | 3.182                    | 4.541                   | 5.841                    | 10.215                   | 12.924                    |
| 4         | 0.000                   | 0.741                   | 0.941                   | 1.190                   | 1.533                   | 2.132                   | 2.776                    | 3.747                   | 4.604                    | 7.173                    | 8.610                     |
| 5         | 0.000                   | 0.727                   | 0.920                   | 1.156                   | 1.476                   | 2.015                   | 2.571                    | 3.365                   | 4.032                    | 5.893                    | 6.869                     |
| 6         | 0.000                   | 0.718                   | 0.906                   | 1.134                   | 1.440                   | 1.943                   | 2.447                    | 3.143                   | 3.707                    | 5.208                    | 5.959                     |
| 7         | 0.000                   | 0.711                   | 0.896                   | 1.119                   | 1.415                   | 1.895                   | 2.365                    | 2.998                   | 3.499                    | 4.785                    | 5.408                     |
| 8         | 0.000                   | 0.706                   | 0.889                   | 1.108                   | 1.397                   | 1.860                   | 2.306                    | 2.896                   | 3.355                    | 4.501                    | 5.041                     |
| 9         | 0.000                   | 0.703                   | 0.883                   | 1.100                   | 1.383                   | 1.833                   | 2.262                    | 2.821                   | 3.250                    | 4.297                    | 4.781                     |
| 10        | 0.000                   | 0.700                   | 0.879                   | 1.093                   | 1.372                   | 1.812                   | 2.228                    | 2.764                   | 3.169                    | 4.144                    | 4.587                     |
| 11        | 0.000                   | 0.697                   | 0.876                   | 1.088                   | 1.363                   | 1.796                   | 2.201                    | 2.718                   | 3.106                    | 4.025                    | 4.437                     |
| 12        | 0.000                   | 0.695                   | 0.873                   | 1.083                   | 1.356                   | 1.782                   | 2.179                    | 2.681                   | 3.055                    | 3.930                    | 4.318                     |
| 13        | 0.000                   | 0.694                   | 0.870                   | 1.079                   | 1.350                   | 1.771                   | 2.160                    | 2.650                   | 3.012                    | 3.852                    | 4.221                     |
| 14        | 0.000                   | 0.692                   | 0.868                   | 1.076                   | 1.345                   | 1.761                   | 2.145                    | 2.624                   | 2.977                    | 3.787                    | 4.140                     |
| 15        | 0.000                   | 0.691                   | 0.866                   | 1.074                   | 1.341                   | 1.753                   | 2.131                    | 2.602                   | 2.947                    | 3.733                    | 4.073                     |
| 16        | 0.000                   | 0.690                   | 0.865                   | 1.071                   | 1.337                   | 1.746                   | 2.120                    | 2.583                   | 2.921                    | 3.686                    | 4.015                     |
| 17        | 0.000                   | 0.689                   | 0.863                   | 1.069                   | 1.333                   | 1.740                   | 2.110                    | 2.567                   | 2.898                    | 3.646                    | 3.965                     |
| 18        | 0.000                   | 0.688                   | 0.862                   | 1.067                   | 1.330                   | 1.734                   | 2.101                    | 2.552                   | 2.878                    | 3.610                    | 3.922                     |
| 19        | 0.000                   | 0.688                   | 0.861                   | 1.066                   | 1.328                   | 1.729                   | 2.093                    | 2.539                   | 2.861                    | 3.579                    | 3.883                     |
| 20        | 0.000                   | 0.687                   | 0.860                   | 1.064                   | 1.325                   | 1.725                   | 2.086                    | 2.528                   | 2.845                    | 3.552                    | 3.850                     |
| 21        | 0.000                   | 0.686                   | 0.859                   | 1.063                   | 1.323                   | 1.721                   | 2.080                    | 2.518                   | 2.831                    | 3.527                    | 3.819                     |
| 22        | 0.000                   | 0.686                   | 0.858                   | 1.061                   | 1.321                   | 1.717                   | 2.074                    | 2.508                   | 2.819                    | 3.505                    | 3.792                     |
| 23        | 0.000                   | 0.685                   | 0.858                   | 1.060                   | 1.319                   | 1.714                   | 2.069                    | 2.500                   | 2.807                    | 3.485                    | 3.768                     |
| 24        | 0.000                   | 0.685                   | 0.857                   | 1.059                   | 1.318                   | 1.711                   | 2.064                    | 2.492                   | 2.797                    | 3.467                    | 3.745                     |
| 25        | 0.000                   | 0.684                   | 0.856                   | 1.058                   | 1.316                   | 1.708                   | 2.060                    | 2.485                   | 2.787                    | 3.450                    | 3.725                     |
| 26        | 0.000                   | 0.684                   | 0.856                   | 1.058                   | 1.315                   | 1.706                   | 2.056                    | 2.479                   | 2.779                    | 3.435                    | 3.707                     |
| 27        | 0.000                   | 0.684                   | 0.855                   | 1.057                   | 1.314                   | 1.703                   | 2.052                    | 2.473                   | 2.771                    | 3.421                    | 3.690                     |
| 28        | 0.000                   | 0.683                   | 0.855                   | 1.056                   | 1.313                   | 1.701                   | 2.048                    | 2.467                   | 2.763                    | 3.408                    | 3.674                     |
| 29        | 0.000                   | 0.683                   | 0.854                   | 1.055                   | 1.311                   | 1.699                   | 2.045                    | 2.462                   | 2.756                    | 3.396                    | 3.659                     |
| 30        | 0.000                   | 0.683                   | 0.854                   | 1.055                   | 1.310                   | 1.697                   | 2.042                    | 2.457                   | 2.750                    | 3.385                    | 3.646                     |
| 40        | 0.000                   | 0.681                   | 0.851                   | 1.050                   | 1.303                   | 1.684                   | 2.021                    | 2.423                   | 2.704                    | 3.307                    | 3.551                     |
| 60        | 0.000                   | 0.679                   | 0.848                   | 1.045                   | 1.296                   | 1.671                   | 2.000                    | 2.390                   | 2.660                    | 3.232                    | 3.460                     |
| 80        | 0.000                   | 0.678                   | 0.846                   | 1.043                   | 1.292                   | 1.664                   | 1.990                    | 2.374                   | 2.639                    | 3.195                    | 3.416                     |
| 100       | 0.000                   | 0.677                   | 0.845                   | 1.042                   | 1.290                   | 1.660                   | 1.984                    | 2.364                   | 2.626                    | 3.174                    | 3.390                     |
| 1000      | 0.000                   | 0.675                   | 0.842                   | 1.037                   | 1.282                   | 1.646                   | 1.962                    | 2.330                   | 2.581                    | 3.098                    | 3.300                     |
| <b>Z</b>  | 0.000                   | 0.674                   | 0.842                   | 1.036                   | 1.282                   | 1.645                   | 1.960                    | 2.326                   | 2.576                    | 3.090                    | 3.291                     |
|           | 0%                      | 50%                     | 60%                     | 70%                     | 80%                     | 90%                     | 95%                      | 98%                     | 99%                      | 99.8%                    | 99.9%                     |
|           | Confidence Level        |                         |                         |                         |                         |                         |                          |                         |                          |                          |                           |