**Critical Values for Bonferroni’s Method of Multipe Comparisons**

**Number of Simultaneous Comparisons**

**Df** **1 2 3 4 5 6 7 8 9 10**

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1 12.71 25.45 38.19 50.92 63.66 76.39 89.12 101.9 114.6 127.3

2 4.303 6.205 7.649 8.860 9.925 10.89 11.77 12.59 13.36 14.09

3 3.182 4.177 4.857 5.392 5.841 6.232 6.580 6.895 7.185 7.453

4 2.776 3.495 3.961 4.315 4.604 4.851 5.068 5.261 5.437 5.598

5 2.571 3.163 3.534 3.810 4.032 4.219 4.382 4.526 4.655 4.773

6 2.447 2.969 3.287 3.521 3.707 3.863 3.997 4.115 4.221 4.317

7 2.365 2.841 3.128 3.335 3.499 3.636 3.753 3.855 3.947 4.029

8 2.306 2.752 3.016 3.206 3.355 3.479 3.584 3.677 3.759 3.833

9 2.262 2.685 2.933 3.111 3.250 3.364 3.462 3.547 3.622 3.690

10 2.228 2.634 2.870 3.038 3.169 3.277 3.368 3.448 3.518 3.581

11 2.201 2.593 2.820 2.981 3.106 3.208 3.295 3.370 3.437 3.497

12 2.179 2.560 2.779 2.934 3.055 3.153 3.236 3.308 3.371 3.428

13 2.160 2.533 2.746 2.896 3.012 3.107 3.187 3.256 3.318 3.372

14 2.145 2.510 2.718 2.864 2.977 3.069 3.146 3.214 3.273 3.326

15 2.131 2.490 2.694 2.837 2.947 3.036 3.112 3.177 3.235 3.286

16 2.120 2.473 2.673 2.813 2.921 3.008 3.082 3.146 3.202 3.252

17 2.110 2.458 2.655 2.793 2.898 2.984 3.056 3.119 3.173 3.222

18 2.101 2.445 2.639 2.775 2.878 2.963 3.034 3.095 3.149 3.197

19 2.093 2.433 2.625 2.759 2.861 2.944 3.014 3.074 3.127 3.174

20 2.086 2.423 2.613 2.744 2.845 2.927 2.996 3.055 3.107 3.153

21 2.080 2.414 2.601 2.732 2.831 2.912 2.980 3.038 3.090 3.135

22 2.074 2.405 2.591 2.720 2.819 2.899 2.965 3.023 3.074 3.119

23 2.069 2.398 2.582 2.710 2.807 2.886 2.952 3.009 3.059 3.104

24 2.064 2.391 2.574 2.700 2.797 2.875 2.941 2.997 3.046 3.091

25 2.060 2.385 2.566 2.692 2.787 2.865 2.930 2.986 3.035 3.078

26 2.056 2.379 2.559 2.684 2.779 2.856 2.920 2.975 3.024 3.067

27 2.052 2.373 2.552 2.676 2.771 2.847 2.911 2.966 3.014 3.057

28 2.048 2.368 2.546 2.669 2.763 2.839 2.902 2.957 3.004 3.047

29 2.045 2.364 2.541 2.663 2.756 2.832 2.894 2.949 2.996 3.038

30 2.042 2.360 2.536 2.657 2.750 2.825 2.887 2.941 2.988 3.030

40 2.021 2.329 2.499 2.616 2.704 2.776 2.836 2.887 2.931 2.971

50 2.009 2.311 2.477 2.591 2.678 2.747 2.805 2.855 2.898 2.937

60 2.000 2.299 2.463 2.575 2.660 2.729 2.785 2.834 2.877 2.915

70 1.994 2.291 2.453 2.564 2.648 2.715 2.771 2.820 2.862 2.899

80 1.990 2.284 2.445 2.555 2.639 2.705 2.761 2.809 2.850 2.887

90 1.987 2.280 2.440 2.549 2.632 2.698 2.753 2.800 2.841 2.878

100 1.984 2.276 2.435 2.544 2.626 2.692 2.747 2.793 2.834 2.871

110 1.982 2.272 2.431 2.539 2.621 2.687 2.741 2.788 2.829 2.865

120 1.980 2.270 2.428 2.536 2.617 2.683 2.737 2.783 2.824 2.860

130 1.978 2.268 2.425 2.533 2.614 2.679 2.733 2.780 2.820 2.856

140 1.977 2.266 2.423 2.530 2.611 2.676 2.730 2.776 2.817 2.852

150 1.976 2.264 2.421 2.528 2.609 2.674 2.728 2.774 2.814 2.849

160 1.975 2.263 2.419 2.526 2.607 2.671 2.725 2.771 2.811 2.846

170 1.974 2.261 2.418 2.525 2.605 2.669 2.723 2.769 2.809 2.844

180 1.973 2.260 2.417 2.523 2.603 2.668 2.721 2.767 2.807 2.842

190 1.973 2.259 2.415 2.522 2.602 2.666 2.720 2.765 2.805 2.840

200 1.972 2.258 2.414 2.520 2.601 2.665 2.718 2.764 2.803 2.839

999 1.962 2.245 2.398 2.502 2.581 2.644 2.696 2.740 2.779 2.813

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