# F TABLOSU

**Area in the Right Tail of Distribution = 0.05**

| $D_2$ \ $D_1$ | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 161.448 | 199.500 | 215.707 | 224.583 | 230.162 | 233.986 | 236.768 | 238.883 | 240.543 | 241.882 |
| 2 | 18.513 | 19.000 | 19.164 | 19.247 | 19.296 | 19.330 | 19.353 | 19.371 | 19.385 | 19.396 |
| 3 | 10.128 | 9.552 | 9.277 | 9.117 | 9.013 | 8.941 | 8.887 | 8.845 | 8.812 | 8.786 |
| 4 | 7.709 | 6.944 | 6.591 | 6.388 | 6.256 | 6.163 | 6.094 | 6.041 | 5.999 | 5.964 |
| 5 | 6.608 | 5.786 | 5.409 | 5.192 | 5.050 | 4.950 | 4.876 | 4.818 | 4.772 | 4.735 |
| 6 | 5.987 | 5.143 | 4.757 | 4.534 | 4.387 | 4.284 | 4.207 | 4.147 | 4.099 | 4.060 |
| 7 | 5.591 | 4.737 | 4.347 | 4.120 | 3.972 | 3.866 | 3.787 | 3.726 | 3.677 | 3.637 |
| 8 | 5.318 | 4.459 | 4.066 | 3.838 | 3.687 | 3.581 | 3.500 | 3.438 | 3.388 | 3.347 |
| 9 | 5.117 | 4.256 | 3.863 | 3.633 | 3.482 | 3.374 | 3.293 | 3.230 | 3.179 | 3.137 |
| 10 | 4.965 | 4.103 | 3.708 | 3.478 | 3.326 | 3.217 | 3.135 | 3.072 | 3.020 | 2.978 |
| 11 | 4.844 | 3.982 | 3.587 | 3.357 | 3.204 | 3.095 | 3.012 | 2.948 | 2.896 | 2.854 |
| 12 | 4.747 | 3.885 | 3.490 | 3.259 | 3.106 | 2.996 | 2.913 | 2.849 | 2.796 | 2.753 |
| 13 | 4.667 | 3.806 | 3.411 | 3.179 | 3.025 | 2.915 | 2.832 | 2.767 | 2.714 | 2.671 |
| 14 | 4.600 | 3.739 | 3.344 | 3.112 | 2.958 | 2.848 | 2.764 | 2.699 | 2.646 | 2.602 |
| 15 | 4.543 | 3.682 | 3.287 | 3.056 | 2.901 | 2.790 | 2.707 | 2.641 | 2.588 | 2.544 |
| 16 | 4.494 | 3.634 | 3.239 | 3.007 | 2.852 | 2.741 | 2.657 | 2.591 | 2.538 | 2.494 |
| 17 | 4.451 | 3.592 | 3.197 | 2.965 | 2.810 | 2.699 | 2.614 | 2.548 | 2.494 | 2.450 |
| 18 | 4.414 | 3.555 | 3.160 | 2.928 | 2.773 | 2.661 | 2.577 | 2.510 | 2.456 | 2.412 |
| 19 | 4.381 | 3.522 | 3.127 | 2.895 | 2.740 | 2.628 | 2.544 | 2.477 | 2.423 | 2.378 |
| 20 | 4.351 | 3.493 | 3.098 | 2.866 | 2.711 | 2.599 | 2.514 | 2.447 | 2.393 | 2.348 |

**Area in the Right Tail of Distribution = 0.05**

| $D_2$ \ $D_1$ | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 242.983 | 243.906 | 244.690 | 245.364 | 245.950 | 246.464 | 246.918 | 247.323 | 247.686 | 248.013 |
| 2 | 19.405 | 19.413 | 19.419 | 19.424 | 19.429 | 19.433 | 19.437 | 19.440 | 19.443 | 19.446 |
| 3 | 8.763 | 8.745 | 8.729 | 8.715 | 8.703 | 8.692 | 8.683 | 8.675 | 8.667 | 8.660 |
| 4 | 5.936 | 5.912 | 5.891 | 5.873 | 5.858 | 5.844 | 5.832 | 5.821 | 5.811 | 5.803 |
| 5 | 4.704 | 4.678 | 4.655 | 4.636 | 4.619 | 4.604 | 4.590 | 4.579 | 4.568 | 4.558 |
| 6 | 4.027 | 4.000 | 3.976 | 3.956 | 3.938 | 3.922 | 3.908 | 3.896 | 3.884 | 3.874 |
| 7 | 3.603 | 3.575 | 3.550 | 3.529 | 3.511 | 3.494 | 3.480 | 3.467 | 3.455 | 3.445 |
| 8 | 3.313 | 3.284 | 3.259 | 3.237 | 3.218 | 3.202 | 3.187 | 3.173 | 3.161 | 3.150 |
| 9 | 3.102 | 3.073 | 3.048 | 3.025 | 3.006 | 2.989 | 2.974 | 2.960 | 2.948 | 2.936 |
| 10 | 2.943 | 2.913 | 2.887 | 2.865 | 2.845 | 2.828 | 2.812 | 2.798 | 2.785 | 2.774 |
| 11 | 2.818 | 2.788 | 2.761 | 2.739 | 2.719 | 2.701 | 2.685 | 2.671 | 2.658 | 2.646 |
| 12 | 2.717 | 2.687 | 2.660 | 2.637 | 2.617 | 2.599 | 2.583 | 2.568 | 2.555 | 2.544 |
| 13 | 2.635 | 2.604 | 2.577 | 2.554 | 2.533 | 2.515 | 2.499 | 2.484 | 2.471 | 2.459 |
| 14 | 2.565 | 2.534 | 2.507 | 2.484 | 2.463 | 2.445 | 2.428 | 2.413 | 2.400 | 2.388 |
| 15 | 2.507 | 2.475 | 2.448 | 2.424 | 2.403 | 2.385 | 2.368 | 2.353 | 2.340 | 2.328 |
| 16 | 2.456 | 2.425 | 2.397 | 2.373 | 2.352 | 2.333 | 2.317 | 2.302 | 2.288 | 2.276 |
| 17 | 2.413 | 2.381 | 2.353 | 2.329 | 2.308 | 2.289 | 2.272 | 2.257 | 2.243 | 2.230 |
| 18 | 2.374 | 2.342 | 2.314 | 2.290 | 2.269 | 2.250 | 2.233 | 2.217 | 2.203 | 2.191 |
| 19 | 2.340 | 2.308 | 2.280 | 2.256 | 2.234 | 2.215 | 2.198 | 2.182 | 2.168 | 2.155 |
| 20 | 2.310 | 2.278 | 2.250 | 2.225 | 2.203 | 2.184 | 2.167 | 2.151 | 2.137 | 2.124 |

**Area in the Right Tail of Distribution = 0.01**

| $D_2$ \ $D_1$ | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|---|
| **1** | 4052.2 | 4999.5 | 5403.4 | 5624.6 | 5763.6 | 5859.0 | 5928.4 | 5981.1 | 6022.5 | 6055.8 |
| **2** | 98.503 | 99.000 | 99.166 | 99.249 | 99.299 | 99.333 | 99.356 | 99.374 | 99.388 | 99.399 |
| **3** | 34.116 | 30.817 | 29.457 | 28.710 | 28.237 | 27.911 | 27.672 | 27.489 | 27.345 | 27.229 |
| **4** | 21.198 | 18.000 | 16.694 | 15.977 | 15.522 | 15.207 | 14.976 | 14.799 | 14.659 | 14.546 |
| **5** | 16.258 | 13.274 | 12.060 | 11.392 | 10.967 | 10.672 | 10.456 | 10.289 | 10.158 | 10.051 |
| **6** | 13.745 | 10.925 | 9.780 | 9.148 | 8.746 | 8.466 | 8.260 | 8.102 | 7.976 | 7.874 |
| **7** | 12.246 | 9.547 | 8.451 | 7.847 | 7.460 | 7.191 | 6.993 | 6.840 | 6.719 | 6.620 |
| **8** | 11.259 | 8.649 | 7.591 | 7.006 | 6.632 | 6.371 | 6.178 | 6.029 | 5.911 | 5.814 |
| **9** | 10.561 | 8.022 | 6.992 | 6.422 | 6.057 | 5.802 | 5.613 | 5.467 | 5.351 | 5.257 |
| **10** | 10.044 | 7.559 | 6.552 | 5.994 | 5.636 | 5.386 | 5.200 | 5.057 | 4.942 | 4.849 |
| **11** | 9.646 | 7.206 | 6.217 | 5.668 | 5.316 | 5.069 | 4.886 | 4.744 | 4.632 | 4.539 |
| **12** | 9.330 | 6.927 | 5.953 | 5.412 | 5.064 | 4.821 | 4.640 | 4.499 | 4.388 | 4.296 |
| **13** | 9.074 | 6.701 | 5.739 | 5.205 | 4.862 | 4.620 | 4.441 | 4.302 | 4.191 | 4.100 |
| **14** | 8.862 | 6.515 | 5.564 | 5.035 | 4.695 | 4.456 | 4.278 | 4.140 | 4.030 | 3.939 |
| **15** | 8.683 | 6.359 | 5.417 | 4.893 | 4.556 | 4.318 | 4.142 | 4.004 | 3.895 | 3.805 |
| **16** | 8.531 | 6.226 | 5.292 | 4.773 | 4.437 | 4.202 | 4.026 | 3.890 | 3.780 | 3.691 |
| **17** | 8.400 | 6.112 | 5.185 | 4.669 | 4.336 | 4.102 | 3.927 | 3.791 | 3.682 | 3.593 |
| **18** | 8.285 | 6.013 | 5.092 | 4.579 | 4.248 | 4.015 | 3.841 | 3.705 | 3.597 | 3.508 |
| **19** | 8.185 | 5.926 | 5.010 | 4.500 | 4.171 | 3.939 | 3.765 | 3.631 | 3.523 | 3.434 |
| **20** | 8.096 | 5.849 | 4.938 | 4.431 | 4.103 | 3.871 | 3.699 | 3.564 | 3.457 | 3.368 |

**Area in the Right Tail of Distribution = 0.01**

| $D_2$ \ $D_1$ | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
|---|---|---|---|---|---|---|---|---|---|---|
| **1** | 6083.3 | 6106.3 | 6125.9 | 6142.7 | 6157.3 | 6170.1 | 6181.4 | 6191.5 | 6200.6 | 6208.7 |
| **2** | 99.408 | 99.416 | 99.422 | 99.428 | 99.433 | 99.437 | 99.440 | 99.444 | 99.447 | 99.449 |
| **3** | 27.133 | 27.052 | 26.983 | 26.924 | 26.872 | 26.827 | 26.787 | 26.751 | 26.719 | 26.690 |
| **4** | 14.452 | 14.374 | 14.307 | 14.249 | 14.198 | 14.154 | 14.115 | 14.080 | 14.048 | 14.020 |
| **5** | 9.963 | 9.888 | 9.825 | 9.770 | 9.722 | 9.680 | 9.643 | 9.610 | 9.580 | 9.553 |
| **6** | 7.790 | 7.718 | 7.657 | 7.605 | 7.559 | 7.519 | 7.483 | 7.451 | 7.422 | 7.396 |
| **7** | 6.538 | 6.469 | 6.410 | 6.359 | 6.314 | 6.275 | 6.240 | 6.209 | 6.181 | 6.155 |
| **8** | 5.734 | 5.667 | 5.609 | 5.559 | 5.515 | 5.477 | 5.442 | 5.412 | 5.384 | 5.359 |
| **9** | 5.178 | 5.111 | 5.055 | 5.005 | 4.962 | 4.924 | 4.890 | 4.860 | 4.833 | 4.808 |
| **10** | 4.772 | 4.706 | 4.650 | 4.601 | 4.558 | 4.520 | 4.487 | 4.457 | 4.430 | 4.405 |
| **11** | 4.462 | 4.397 | 4.342 | 4.293 | 4.251 | 4.213 | 4.180 | 4.150 | 4.123 | 4.099 |
| **12** | 4.220 | 4.155 | 4.100 | 4.052 | 4.010 | 3.972 | 3.939 | 3.909 | 3.883 | 3.858 |
| **13** | 4.025 | 3.960 | 3.905 | 3.857 | 3.815 | 3.778 | 3.745 | 3.716 | 3.689 | 3.665 |
| **14** | 3.864 | 3.800 | 3.745 | 3.698 | 3.656 | 3.619 | 3.586 | 3.556 | 3.529 | 3.505 |
| **15** | 3.730 | 3.666 | 3.612 | 3.564 | 3.522 | 3.485 | 3.452 | 3.423 | 3.396 | 3.372 |
| **16** | 3.616 | 3.553 | 3.498 | 3.451 | 3.409 | 3.372 | 3.339 | 3.310 | 3.283 | 3.259 |
| **17** | 3.519 | 3.455 | 3.401 | 3.353 | 3.312 | 3.275 | 3.242 | 3.212 | 3.186 | 3.162 |
| **18** | 3.434 | 3.371 | 3.316 | 3.269 | 3.227 | 3.190 | 3.158 | 3.128 | 3.101 | 3.077 |
| **19** | 3.360 | 3.297 | 3.242 | 3.195 | 3.153 | 3.116 | 3.084 | 3.054 | 3.027 | 3.003 |
| **20** | 3.294 | 3.231 | 3.177 | 3.130 | 3.088 | 3.051 | 3.018 | 2.989 | 2.962 | 2.938 |