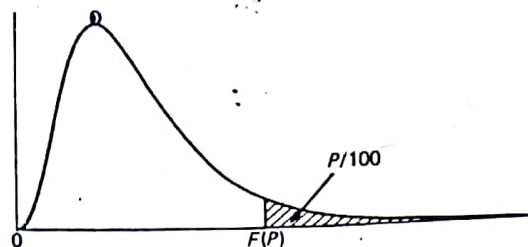


TABLE 12(b). 5 PER CENT POINTS OF THE F-DISTRIBUTION

If $F = \frac{X_1/\nu_1}{X_2/\nu_2}$, where X_1 and X_2 are independent random variables distributed as χ^2 with ν_1 and ν_2 degrees of freedom respectively, then the probabilities that $F \geq F(P)$ and that $F \leq F(P)$ are both equal to $P/100$. Linear interpolation in ν_1 and ν_2 will generally be sufficiently accurate except when either $\nu_1 > 12$ or $\nu_2 > 40$, when harmonic interpolation should be used.



(This shape applies only when $\nu_1 \geq 3$. When $\nu_1 < 3$ the mode is at the origin.)

| $\nu_1 =$ | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 10 | 12 | 24 | ∞ |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|
| $\nu_2 = 1$ | 161.4 | 199.5 | 215.7 | 224.6 | 230.2 | 234.0 | 236.8 | 238.9 | 241.9 | 243.9 | 249.1 | 254.3 |
| 2 | 18.51 | 19.00 | 19.16 | 19.25 | 19.30 | 19.33 | 19.35 | 19.37 | 19.40 | 19.41 | 19.45 | 19.50 |
| 3 | 10.13 | 9.552 | 9.277 | 9.117 | 9.013 | 8.941 | 8.887 | 8.845 | 8.786 | 8.745 | 8.639 | 8.526 |
| 4 | 7.709 | 6.944 | 6.591 | 6.388 | 6.256 | 6.163 | 6.094 | 6.041 | 5.964 | 5.912 | 5.774 | 5.628 |
| 5 | 6.608 | 5.786 | 5.409 | 5.192 | 5.050 | 4.950 | 4.876 | 4.818 | 4.735 | 4.678 | 4.527 | 4.365 |
| 6 | 5.987 | 5.143 | 4.757 | 4.534 | 4.387 | 4.284 | 4.207 | 4.147 | 4.060 | 4.000 | 3.841 | 3.669 |
| 7 | 5.591 | 4.737 | 4.347 | 4.120 | 3.972 | 3.866 | 3.787 | 3.726 | 3.637 | 3.575 | 3.410 | 3.230 |
| 8 | 5.328 | 4.459 | 4.066 | 3.838 | 3.687 | 3.581 | 3.500 | 3.438 | 3.347 | 3.284 | 3.115 | 2.928 |
| 9 | 5.117 | 4.250 | 3.852 | 3.623 | 3.482 | 3.374 | 3.293 | 3.230 | 3.137 | 3.073 | 2.900 | 2.707 |
| 10 | 4.965 | 4.103 | 3.708 | 3.478 | 3.326 | 3.217 | 3.135 | 3.072 | 2.978 | 2.913 | 2.737 | 2.538 |
| 11 | 4.844 | 3.982 | 3.587 | 3.357 | 3.204 | 3.095 | 3.012 | 2.948 | 2.854 | 2.788 | 2.609 | 2.404 |
| 12 | 4.747 | 3.885 | 3.490 | 3.259 | 3.106 | 2.996 | 2.913 | 2.849 | 2.753 | 2.687 | 2.505 | 2.296 |
| 13 | 4.667 | 3.806 | 3.411 | 3.179 | 3.025 | 2.915 | 2.832 | 2.767 | 2.671 | 2.604 | 2.420 | 2.206 |
| 14 | 4.600 | 3.739 | 3.344 | 3.112 | 2.958 | 2.848 | 2.764 | 2.699 | 2.602 | 2.534 | 2.349 | 2.131 |
| 15 | 4.543 | 3.682 | 3.287 | 3.056 | 2.901 | 2.790 | 2.707 | 2.641 | 2.544 | 2.475 | 2.288 | 2.066 |
| 16 | 4.494 | 3.634 | 3.239 | 3.007 | 2.852 | 2.741 | 2.657 | 2.591 | 2.494 | 2.425 | 2.235 | 2.010 |
| 17 | 4.451 | 3.592 | 3.197 | 2.965 | 2.810 | 2.699 | 2.614 | 2.548 | 2.450 | 2.381 | 2.190 | 1.960 |
| 18 | 4.414 | 3.555 | 3.160 | 2.928 | 2.773 | 2.661 | 2.577 | 2.510 | 2.412 | 2.342 | 2.150 | 1.917 |
| 19 | 4.381 | 3.522 | 3.127 | 2.895 | 2.740 | 2.628 | 2.544 | 2.477 | 2.378 | 2.308 | 2.114 | 1.878 |
| 20 | 4.351 | 3.493 | 3.098 | 2.866 | 2.711 | 2.599 | 2.514 | 2.447 | 2.348 | 2.278 | 2.082 | 1.843 |
| 21 | 4.325 | 3.467 | 3.072 | 2.840 | 2.685 | 2.573 | 2.488 | 2.420 | 2.321 | 2.250 | 2.054 | 1.812 |
| 22 | 4.301 | 3.443 | 3.049 | 2.817 | 2.661 | 2.549 | 2.464 | 2.397 | 2.297 | 2.226 | 2.028 | 1.783 |
| 23 | 4.279 | 3.422 | 3.028 | 2.796 | 2.640 | 2.528 | 2.442 | 2.375 | 2.275 | 2.204 | 2.005 | 1.757 |
| 24 | 4.260 | 3.403 | 3.009 | 2.776 | 2.621 | 2.508 | 2.423 | 2.355 | 2.255 | 2.183 | 1.984 | 1.733 |
| 25 | 4.242 | 3.385 | 2.991 | 2.759 | 2.603 | 2.490 | 2.405 | 2.337 | 2.236 | 2.165 | 1.964 | 1.711 |
| 26 | 4.225 | 3.369 | 2.975 | 2.743 | 2.587 | 2.474 | 2.388 | 2.321 | 2.220 | 2.148 | 1.946 | 1.691 |
| 27 | 4.210 | 3.354 | 2.960 | 2.728 | 2.572 | 2.459 | 2.373 | 2.305 | 2.204 | 2.132 | 1.930 | 1.672 |
| 28 | 4.196 | 3.340 | 2.947 | 2.714 | 2.558 | 2.445 | 2.359 | 2.291 | 2.190 | 2.118 | 1.915 | 1.654 |
| 29 | 4.183 | 3.328 | 2.934 | 2.701 | 2.545 | 2.432 | 2.346 | 2.278 | 2.177 | 2.104 | 1.901 | 1.638 |
| 30 | 4.171 | 3.316 | 2.922 | 2.690 | 2.534 | 2.421 | 2.334 | 2.266 | 2.165 | 2.092 | 1.887 | 1.622 |
| 32 | 4.149 | 3.295 | 2.901 | 2.668 | 2.512 | 2.399 | 2.313 | 2.244 | 2.142 | 2.070 | 1.864 | 1.594 |
| 34 | 4.130 | 3.276 | 2.883 | 2.650 | 2.494 | 2.380 | 2.294 | 2.225 | 2.123 | 2.050 | 1.843 | 1.569 |
| 36 | 4.113 | 3.259 | 2.866 | 2.634 | 2.477 | 2.364 | 2.277 | 2.209 | 2.106 | 2.033 | 1.824 | 1.547 |
| 38 | 4.098 | 3.245 | 2.852 | 2.619 | 2.463 | 2.349 | 2.262 | 2.194 | 2.091 | 2.017 | 1.808 | 1.527 |
| 40 | 4.085 | 3.232 | 2.839 | 2.606 | 2.449 | 2.336 | 2.249 | 2.180 | 2.077 | 2.003 | 1.793 | 1.509 |
| 60 | 4.001 | 3.150 | 2.758 | 2.525 | 2.368 | 2.254 | 2.167 | 2.097 | 1.993 | 1.917 | 1.700 | 1.389 |
| 120 | 3.920 | 3.072 | 2.680 | 2.447 | 2.290 | 2.175 | 2.087 | 2.016 | 1.910 | 1.834 | 1.608 | 1.254 |
| ∞ | 3.841 | 2.996 | 2.605 | 2.372 | 2.214 | 2.099 | 2.010 | 1.938 | 1.831 | 1.752 | 1.517 | 1.000 |