

## Quantile von $\chi^2$ -Verteilungen

Eintrag  $x_{n,p}$  in Zeile  $n$ , Spalte  $p$  erfüllt  $\mathbb{P}(X_n \leq x_{n,p}) = p$ , wo  $X_n$   $\chi^2$ -verteilt mit  $n$  Freiheitsgraden.  
 Beispiel:  $\mathbb{P}(X_5 \leq 15.086) = 0.99$

| $n \backslash p$ | 0.01   | 0.05   | 0.1    | 0.3    | 0.5    | 0.7    | 0.9    | 0.95   | 0.99   | 0.999  |
|------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1                | 0.000  | 0.004  | 0.016  | 0.148  | 0.455  | 1.074  | 2.706  | 3.841  | 6.635  | 10.828 |
| 2                | 0.020  | 0.103  | 0.211  | 0.713  | 1.386  | 2.408  | 4.605  | 5.991  | 9.210  | 13.816 |
| 3                | 0.115  | 0.352  | 0.584  | 1.424  | 2.366  | 3.665  | 6.251  | 7.815  | 11.345 | 16.266 |
| 4                | 0.297  | 0.711  | 1.064  | 2.195  | 3.357  | 4.878  | 7.779  | 9.488  | 13.277 | 18.467 |
| 5                | 0.554  | 1.145  | 1.610  | 3.000  | 4.351  | 6.064  | 9.236  | 11.070 | 15.086 | 20.515 |
| 6                | 0.872  | 1.635  | 2.204  | 3.828  | 5.348  | 7.231  | 10.645 | 12.592 | 16.812 | 22.458 |
| 7                | 1.239  | 2.167  | 2.833  | 4.671  | 6.346  | 8.383  | 12.017 | 14.067 | 18.475 | 24.322 |
| 8                | 1.646  | 2.733  | 3.490  | 5.527  | 7.344  | 9.524  | 13.362 | 15.507 | 20.090 | 26.124 |
| 9                | 2.088  | 3.325  | 4.168  | 6.393  | 8.343  | 10.656 | 14.684 | 16.919 | 21.666 | 27.877 |
| 10               | 2.558  | 3.940  | 4.865  | 7.267  | 9.342  | 11.781 | 15.987 | 18.307 | 23.209 | 29.588 |
| 11               | 3.053  | 4.575  | 5.578  | 8.148  | 10.341 | 12.899 | 17.275 | 19.675 | 24.725 | 31.264 |
| 12               | 3.571  | 5.226  | 6.304  | 9.034  | 11.340 | 14.011 | 18.549 | 21.026 | 26.217 | 32.909 |
| 13               | 4.107  | 5.892  | 7.042  | 9.926  | 12.340 | 15.119 | 19.812 | 22.362 | 27.688 | 34.528 |
| 14               | 4.660  | 6.571  | 7.790  | 10.821 | 13.339 | 16.222 | 21.064 | 23.685 | 29.141 | 36.123 |
| 15               | 5.229  | 7.261  | 8.547  | 11.721 | 14.339 | 17.322 | 22.307 | 24.996 | 30.578 | 37.697 |
| 16               | 5.812  | 7.962  | 9.312  | 12.624 | 15.338 | 18.418 | 23.542 | 26.296 | 32.000 | 39.252 |
| 17               | 6.408  | 8.672  | 10.085 | 13.531 | 16.338 | 19.511 | 24.769 | 27.587 | 33.409 | 40.790 |
| 18               | 7.015  | 9.390  | 10.865 | 14.440 | 17.338 | 20.601 | 25.989 | 28.869 | 34.805 | 42.312 |
| 19               | 7.633  | 10.117 | 11.651 | 15.352 | 18.338 | 21.689 | 27.204 | 30.144 | 36.191 | 43.820 |
| 20               | 8.260  | 10.851 | 12.443 | 16.266 | 19.337 | 22.775 | 28.412 | 31.410 | 37.566 | 45.315 |
| 21               | 8.897  | 11.591 | 13.240 | 17.182 | 20.337 | 23.858 | 29.615 | 32.671 | 38.932 | 46.797 |
| 22               | 9.542  | 12.338 | 14.041 | 18.101 | 21.337 | 24.939 | 30.813 | 33.924 | 40.289 | 48.268 |
| 23               | 10.196 | 13.091 | 14.848 | 19.021 | 22.337 | 26.018 | 32.007 | 35.172 | 41.638 | 49.728 |
| 24               | 10.856 | 13.848 | 15.659 | 19.943 | 23.337 | 27.096 | 33.196 | 36.415 | 42.980 | 51.179 |
| 25               | 11.524 | 14.611 | 16.473 | 20.867 | 24.337 | 28.172 | 34.382 | 37.652 | 44.314 | 52.620 |
| 26               | 12.198 | 15.379 | 17.292 | 21.792 | 25.336 | 29.246 | 35.563 | 38.885 | 45.642 | 54.052 |
| 27               | 12.879 | 16.151 | 18.114 | 22.719 | 26.336 | 30.319 | 36.741 | 40.113 | 46.963 | 55.476 |
| 28               | 13.565 | 16.928 | 18.939 | 23.647 | 27.336 | 31.391 | 37.916 | 41.337 | 48.278 | 56.892 |
| 29               | 14.256 | 17.708 | 19.768 | 24.577 | 28.336 | 32.461 | 39.087 | 42.557 | 49.588 | 58.301 |
| 30               | 14.953 | 18.493 | 20.599 | 25.508 | 29.336 | 33.530 | 40.256 | 43.773 | 50.892 | 59.703 |
| 32               | 16.362 | 20.072 | 22.271 | 27.373 | 31.336 | 35.665 | 42.585 | 46.194 | 53.486 | 62.487 |
| 34               | 17.789 | 21.664 | 23.952 | 29.242 | 33.336 | 37.795 | 44.903 | 48.602 | 56.061 | 65.247 |
| 36               | 19.233 | 23.269 | 25.643 | 31.115 | 35.336 | 39.922 | 47.212 | 50.998 | 58.619 | 67.985 |
| 38               | 20.691 | 24.884 | 27.343 | 32.992 | 37.335 | 42.045 | 49.513 | 53.384 | 61.162 | 70.703 |
| 40               | 22.164 | 26.509 | 29.051 | 34.872 | 39.335 | 44.165 | 51.805 | 55.758 | 63.691 | 73.402 |
| 42               | 23.650 | 28.144 | 30.765 | 36.755 | 41.335 | 46.282 | 54.090 | 58.124 | 66.206 | 76.084 |
| 44               | 25.148 | 29.787 | 32.487 | 38.641 | 43.335 | 48.396 | 56.369 | 60.481 | 68.710 | 78.750 |
| 46               | 26.657 | 31.439 | 34.215 | 40.529 | 45.335 | 50.507 | 58.641 | 62.830 | 71.201 | 81.400 |
| 48               | 28.177 | 33.098 | 35.949 | 42.420 | 47.335 | 52.616 | 60.907 | 65.171 | 73.683 | 84.037 |
| 50               | 29.707 | 34.764 | 37.689 | 44.313 | 49.335 | 54.723 | 63.167 | 67.505 | 76.154 | 86.661 |
| 52               | 31.246 | 36.437 | 39.433 | 46.209 | 51.335 | 56.827 | 65.422 | 69.832 | 78.616 | 89.272 |
| 54               | 32.793 | 38.116 | 41.183 | 48.106 | 53.335 | 58.930 | 67.673 | 72.153 | 81.069 | 91.872 |
| 56               | 34.350 | 39.801 | 42.937 | 50.005 | 55.335 | 61.031 | 69.919 | 74.468 | 83.513 | 94.461 |
| 58               | 35.913 | 41.492 | 44.696 | 51.906 | 57.335 | 63.129 | 72.160 | 76.778 | 85.950 | 97.039 |
| 60               | 37.485 | 43.188 | 46.459 | 53.809 | 59.335 | 65.227 | 74.397 | 79.082 | 88.379 | 99.607 |