# χ2 Distribution Table

1-tailed α

| **χ2 Distribution 1-tailed α** | | | | |
| --- | --- | --- | --- | --- |
| **df** | **0.10** | **0.05** | **0.02** | **0.01** |
| **1** | 2.706 | 3.841 | 5.024 | 6.635 |
| **2** | 4.605 | 5.991 | 7.378 | 9.210 |
| **3** | 6.251 | 7.815 | 9.348 | 11.345 |
| **4** | 7.779 | 9.488 | 11.143 | 13.277 |
| **5** | 9.236 | 11.070 | 12.833 | 15.086 |
| **6** | 10.645 | 12.592 | 14.449 | 16.812 |
| **7** | 12.017 | 14.067 | 16.013 | 18.475 |
| **8** | 13.362 | 15.507 | 17.535 | 20.090 |
| **9** | 14.684 | 16.919 | 19.023 | 21.666 |
| **10** | 15.987 | 18.307 | 20.483 | 23.209 |
| **11** | 17.275 | 19.675 | 21.920 | 24.725 |
| **12** | 18.549 | 21.026 | 23.337 | 26.217 |
| **13** | 19.812 | 22.362 | 24.736 | 27.688 |
| **14** | 21.064 | 23.685 | 26.119 | 29.141 |
| **15** | 22.307 | 24.996 | 27.488 | 30.578 |
| **16** | 23.542 | 26.296 | 28.845 | 32.000 |
| **17** | 24.769 | 27.587 | 30.191 | 33.409 |
| **18** | 25.989 | 28.869 | 31.526 | 34.805 |
| **19** | 27.204 | 30.144 | 32.852 | 36.191 |
| **20** | 28.412 | 31.410 | 34.170 | 37.566 |
| **21** | 29.615 | 32.671 | 35.479 | 38.932 |
| **22** | 30.813 | 33.924 | 36.781 | 40.289 |
| **23** | 32.007 | 35.172 | 38.076 | 41.638 |
| **24** | 33.196 | 36.415 | 39.364 | 42.980 |
| **25** | 34.382 | 37.652 | 40.646 | 44.314 |
| **26** | 35.563 | 38.885 | 41.923 | 45.642 |
| **27** | 36.741 | 40.113 | 43.195 | 46.963 |
| **28** | 37.916 | 41.337 | 44.461 | 48.278 |
| **29** | 39.087 | 42.557 | 45.722 | 49.588 |
| **30** | 40.256 | 43.773 | 46.979 | 50.892 |
| **40** | 51.805 | 55.758 | 59.342 | 63.691 |
| **50** | 63.167 | 67.505 | 71.420 | 76.154 |
| **60** | 74.397 | 79.082 | 83.298 | 88.379 |
| **70** | 85.527 | 90.531 | 95.023 | 100.425 |
| **80** | 96.578 | 101.879 | 106.629 | 112.329 |
| **90** | 107.565 | 113.145 | 118.136 | 124.116 |
| **100** | 118.498 | 124.342 | 129.561 | 135.807 |