

k	$z_\alpha(\alpha = 5\%)$	$z_\alpha(\alpha = 1\%)$
1	3.841	6.635
2	5.991	9.210
3	7.815	11.345
4	9.488	13.277
5	11.070	15.086
6	12.592	16.812
7	14.067	18.475
8	15.507	20.090
9	16.919	21.666
10	18.307	23.209
11	19.675	24.725
12	21.026	26.217
13	22.362	27.688
14	23.685	29.141
15	24.996	30.578
16	26.296	32.000
17	27.587	33.409
18	28.869	34.805
19	30.144	36.191
20	31.410	37.566

Table 6.1. Thresholds z_α for the chi-squared test with k degrees of freedom and significance levels $\alpha = 5\%$ and $\alpha = 1\%$.

$1 - \alpha$	$y_{\alpha/2}$
0.90	1.645
0.91	1.695
0.92	1.751
0.93	1.812
0.94	1.881
0.95	1.960
0.96	2.054
0.97	2.170
0.98	2.326
0.99	2.576

Table 6.2. Confidence levels $1 - \alpha$ and corresponding $y_{\alpha/2}$ such that $2\Phi(y_{\alpha/2}) - 1 = 1 - \alpha$.

$1 - \alpha$	$y_{\alpha/2}(n = 10)$	$1 - \alpha$	$y_{\alpha/2}(n = 100)$
0.90	1.833	0.90	1.660
0.91	1.899	0.91	1.712
0.92	1.973	0.92	1.769
0.93	2.055	0.93	1.832
0.94	2.150	0.94	1.903
0.95	2.262	0.95	1.984
0.96	2.398	0.96	2.081
0.97	2.574	0.97	2.202
0.98	2.821	0.98	2.365
0.99	3.250	0.99	2.626

Table 6.3. Confidence levels $1 - \alpha$ and corresponding $y_{\alpha/2}$ such that $P(|T| \leq y_{\alpha/2}) = 1 - \alpha$. The left-hand table is for $n = 10$ observations with T having $n - 1 = 9$ degrees of freedom, and the right-hand table is for $n = 100$ observations with T having $n - 1 = 99$ degrees of freedom.

$1 - \alpha$	ℓ	u
0.90	77.929	124.342
0.91	77.326	125.170
0.92	76.671	126.079
0.93	75.949	127.092
0.94	75.142	128.237
0.95	74.222	129.561
0.96	73.142	131.142
0.97	71.818	133.120
0.98	70.065	135.807
0.99	67.328	140.169

Table 6.4. Confidence levels $1 - \alpha$ and corresponding values of ℓ and u such that $P(\ell \leq nV_n^2/\sigma^2 \leq u) = 1 - \alpha$ and such that $P(nV_n^2/\sigma^2 \leq \ell) = P(nV_n^2/\sigma^2 \geq u) = \alpha/2$ for $n = 100$ observations.

$1 - \alpha$	ℓ	u
0.90	77.046	123.225
0.91	76.447	124.049
0.92	75.795	124.955
0.93	75.077	125.963
0.94	74.275	127.103
0.95	73.361	128.422
0.96	72.288	129.996
0.97	70.972	131.966
0.98	69.230	134.642
0.99	66.510	138.987

Table 6.5. Confidence levels $1 - \alpha$ and corresponding values of ℓ and u such that $P(\ell \leq (n - 1)S_n^2/\sigma^2 \leq u) = 1 - \alpha$ and such that $P((n - 1)S_n^2/\sigma^2 \leq \ell) = P((n - 1)S_n^2/\sigma^2 \geq u) = \alpha/2$ for $n = 100$ observations ($n - 1 = 99$ degrees of freedom).

α	$y_{\alpha/2}$	y_α
0.01	2.576	2.326
0.02	2.326	2.054
0.03	2.170	1.881
0.04	2.054	1.751
0.05	1.960	1.645
0.06	1.881	1.555
0.07	1.812	1.476
0.08	1.751	1.405
0.09	1.695	1.341
0.10	1.645	1.282

Table 6.6. Significance levels α and corresponding critical values $y_{\alpha/2}$ such that $\Phi(y_{\alpha/2}) = 1 - \alpha/2$ for a two-tailed test and y_α such that $\Phi(y_\alpha) = 1 - \alpha$ for the one-tailed test of the hypothesis $m \leq m_0$. For the one-tailed test $m > m_0$, use $-y_\alpha$.