

Standard normal critical values
(two-tailed: e.g., 5% of observations from $N(0,1)$ will fall outside ± 1.96)
(one-tailed: e.g., 5% of observations from $N(0,1)$ will fall above 1.64)

	Significance											
	50%	25%	10%	5%	2.5%	1%	0.5%	0.25%	0.1%	0.05%	0.025%	0.01%
two-tailed	0.67	1.15	1.64	1.96	2.24	2.58	2.81	3.02	3.29	3.48	3.66	3.89
one-tailed	(0.00)	0.67	1.28	1.64	1.96	2.33	2.58	2.81	3.09	3.29	3.48	3.72

Chi-squared critical values
(one-tailed: e.g., 5% of observations from $\chi^2(1)$ will exceed 3.84)

df	Significance											
	50%	25%	10%	5%	2.5%	1%	0.5%	0.25%	0.1%	0.05%	0.025%	0.01%
1	0.45	1.32	2.71	3.84	5.02	6.63	7.88	9.14	10.83	12.12	13.41	15.14
2	1.39	2.77	4.61	5.99	7.38	9.21	10.60	11.98	13.82	15.20	16.59	18.42
3	2.37	4.11	6.25	7.81	9.35	11.34	12.84	14.32	16.27	17.73	19.19	21.11
4	3.36	5.39	7.78	9.49	11.14	13.28	14.86	16.42	18.47	20.00	21.52	23.51
5	4.35	6.63	9.24	11.07	12.83	15.09	16.75	18.39	20.52	22.11	23.68	25.74
6	5.35	7.84	10.64	12.59	14.45	16.81	18.55	20.25	22.46	24.10	25.73	27.86
7	6.35	9.04	12.02	14.07	16.01	18.48	20.28	22.04	24.32	26.02	27.69	29.88
8	7.34	10.22	13.36	15.51	17.53	20.09	21.95	23.77	26.12	27.87	29.59	31.83
9	8.34	11.39	14.68	16.92	19.02	21.67	23.59	25.46	27.88	29.67	31.43	33.72
10	9.34	12.55	15.99	18.31	20.48	23.21	25.19	27.11	29.59	31.42	33.22	35.56
11	10.34	13.70	17.28	19.68	21.92	24.72	26.76	28.73	31.26	33.14	34.98	37.37
12	11.34	14.85	18.55	21.03	23.34	26.22	28.30	30.32	32.91	34.82	36.70	39.13
13	12.34	15.98	19.81	22.36	24.74	27.69	29.82	31.88	34.53	36.48	38.39	40.87
14	13.34	17.12	21.06	23.68	26.12	29.14	31.32	33.43	36.12	38.11	40.06	42.58
15	14.34	18.25	22.31	25.00	27.49	30.58	32.80	34.95	37.70	39.72	41.70	44.26
16	15.34	19.37	23.54	26.30	28.85	32.00	34.27	36.46	39.25	41.31	43.32	45.92
17	16.34	20.49	24.77	27.59	30.19	33.41	35.72	37.95	40.79	42.88	44.92	47.57
18	17.34	21.60	25.99	28.87	31.53	34.81	37.16	39.42	42.31	44.43	46.51	49.19
19	18.34	22.72	27.20	30.14	32.85	36.19	38.58	40.88	43.82	45.97	48.08	50.80
20	19.34	23.83	28.41	31.41	34.17	37.57	40.00	42.34	45.31	47.50	49.63	52.39
21	20.34	24.93	29.62	32.67	35.48	38.93	41.40	43.78	46.80	49.01	51.17	53.96
22	21.34	26.04	30.81	33.92	36.78	40.29	42.80	45.20	48.27	50.51	52.70	55.52
23	22.34	27.14	32.01	35.17	38.08	41.64	44.18	46.62	49.73	52.00	54.22	57.07
24	23.34	28.24	33.20	36.42	39.36	42.98	45.56	48.03	51.18	53.48	55.72	58.61
25	24.34	29.34	34.38	37.65	40.65	44.31	46.93	49.44	52.62	54.95	57.22	60.14
26	25.34	30.43	35.56	38.89	41.92	45.64	48.29	50.83	54.05	56.41	58.70	61.66
27	26.34	31.53	36.74	40.11	43.19	46.96	49.64	52.22	55.48	57.86	60.18	63.16
28	27.34	32.62	37.92	41.34	44.46	48.28	50.99	53.59	56.89	59.30	61.64	64.66
29	28.34	33.71	39.09	42.56	45.72	49.59	52.34	54.97	58.30	60.73	63.10	66.15
30	29.34	34.80	40.26	43.77	46.98	50.89	53.67	56.33	59.70	62.16	64.56	67.63
31	30.34	35.89	41.42	44.99	48.23	52.19	55.00	57.69	61.10	63.58	66.00	69.11
32	31.34	36.97	42.58	46.19	49.48	53.49	56.33	59.05	62.49	65.00	67.44	70.57
33	32.34	38.06	43.75	47.40	50.73	54.78	57.65	60.39	63.87	66.40	68.87	72.03
34	33.34	39.14	44.90	48.60	51.97	56.06	58.96	61.74	65.25	67.80	70.29	73.48
35	34.34	40.22	46.06	49.80	53.20	57.34	60.27	63.08	66.62	69.20	71.71	74.93
36	35.34	41.30	47.21	51.00	54.44	58.62	61.58	64.41	67.99	70.59	73.12	76.36
37	36.34	42.38	48.36	52.19	55.67	59.89	62.88	65.74	69.35	71.97	74.52	77.80
38	37.34	43.46	49.51	53.38	56.90	61.16	64.18	67.06	70.70	73.35	75.92	79.22
39	38.34	44.54	50.66	54.57	58.12	62.43	65.48	68.38	72.05	74.73	77.32	80.65
40	39.34	45.62	51.81	55.76	59.34	63.69	66.77	69.70	73.40	76.09	78.71	82.06
41	40.34	46.69	52.95	56.94	60.56	64.95	68.05	71.01	74.74	77.46	80.09	83.47
42	41.34	47.77	54.09	58.12	61.78	66.21	69.34	72.32	76.08	78.82	81.47	84.88
43	42.34	48.84	55.23	59.30	62.99	67.46	70.62	73.62	77.42	80.18	82.85	86.28
44	43.34	49.91	56.37	60.48	64.20	68.71	71.89	74.93	78.75	81.53	84.22	87.68
45	44.34	50.98	57.51	61.66	65.41	69.96	73.17	76.22	80.08	82.88	85.59	89.07
46	45.34	52.06	58.64	62.83	66.62	71.20	74.44	77.52	81.40	84.22	86.95	90.46
47	46.34	53.13	59.77	64.00	67.82	72.44	75.70	78.81	82.72	85.56	88.31	91.84
48	47.34	54.20	60.91	65.17	69.02	73.68	76.97	80.10	84.04	86.90	89.67	93.22
49	48.33	55.27	62.04	66.34	70.22	74.92	78.23	81.38	85.35	88.23	91.02	94.60
50	49.33	56.33	63.17	67.50	71.42	76.15	79.49	82.66	86.66	89.56	92.37	95.97