



TABLE 7

Percentage points of the chi-square distribution

		Right-Tail Probability (α)					
df		.999	.995	.99	.975	.95	.90
1		.000002	.000039	.000157	.000982	.003932	.01579
2		.002001	.01003	.02010	.05064	.1026	.2107
3		.02430	.07172	.1148	.2158	.3518	.5844
4		.09080	.2070	.2971	.4844	.7107	1.064
5		.2102	.4117	.5543	.8312	1.145	1.610
6		.3811	.6757	.8721	1.237	1.635	2.204
7		.5985	.9893	1.239	1.690	2.167	2.833
8		.8571	1.344	1.646	2.180	2.733	3.490
9		1.152	1.735	2.088	2.700	3.325	4.168
10		1.479	2.156	2.558	3.247	3.940	4.865
11		1.834	2.603	3.053	3.816	4.575	5.578
12		2.214	3.074	3.571	4.404	5.226	6.304
13		2.617	3.565	4.107	5.009	5.892	7.042
14		3.041	4.075	4.660	5.629	6.571	7.790
15		3.483	4.601	5.229	6.262	7.261	8.547
16		3.942	5.142	5.812	6.908	7.962	9.312
17		4.416	5.697	6.408	7.564	8.672	10.09
18		4.905	6.265	7.015	8.231	9.390	10.86
19		5.407	6.844	7.633	8.907	10.12	11.65
20		5.921	7.434	8.260	9.591	10.85	12.44
21		6.447	8.034	8.897	10.28	11.59	13.24
22		6.983	8.643	9.542	10.98	12.34	14.04
23		7.529	9.260	10.20	11.69	13.09	14.85
24		8.085	9.886	10.86	12.40	13.85	15.66
25		8.649	10.52	11.52	13.12	14.61	16.47
26		9.222	11.16	12.20	13.84	15.38	17.29
27		9.803	11.81	12.88	14.57	16.15	18.11
28		10.39	12.46	13.56	15.31	16.93	18.94
29		10.99	13.12	14.26	16.05	17.71	19.77
30		11.59	13.79	14.95	16.79	18.49	20.60
40		17.92	20.71	22.16	24.43	26.51	29.05
50		24.67	27.99	29.71	32.36	34.76	37.69
60		31.74	35.53	37.48	40.48	43.19	46.46
70		39.04	43.28	45.44	48.76	51.74	55.33
80		46.52	51.17	53.54	57.15	60.39	64.28
90		54.16	59.20	61.75	65.65	69.13	73.29
100		61.92	67.33	70.06	74.22	77.93	82.36
120		77.76	83.85	86.92	91.57	95.70	100.62
240		177.95	187.32	191.99	198.98	205.14	212.39

Source: Computed by M. Longnecker using the R function `qchisq(1 - α , df)`.For 2-tailed tests and C.I.s use value in column headed by $\alpha/2$.

TABLE 7
(continued)

Right-Tail Probability (α)						
.10	.05	.025	.01	.005	.001	df
2.706	3.841	5.024	6.635	7.879	10.83	1
4.605	5.991	7.378	9.210	10.60	13.82	2
6.251	7.815	9.348	11.34	12.84	16.27	3
7.779	9.488	11.14	13.28	14.86	18.47	4
9.236	11.07	12.83	15.09	16.75	20.52	5
10.64	12.59	14.45	16.81	18.55	22.46	6
12.02	14.07	16.01	18.48	20.28	24.32	7
13.36	15.51	17.53	20.09	21.95	26.12	8
14.68	16.92	19.02	21.67	23.59	27.88	9
15.99	18.31	20.48	23.21	25.19	29.59	10
17.28	19.68	21.92	24.72	26.76	31.26	11
18.55	21.03	23.34	26.22	28.30	32.91	12
19.81	22.36	24.74	27.69	29.82	34.53	13
21.06	23.68	26.12	29.14	31.32	36.12	14
22.31	25.00	27.49	30.58	32.80	37.70	15
23.54	26.30	28.85	32.00	34.27	39.25	16
24.77	27.59	30.19	33.41	35.72	40.79	17
25.99	28.87	31.53	34.81	37.16	42.31	18
27.20	30.14	32.85	36.19	38.58	43.82	19
28.41	31.41	34.17	37.57	40.00	45.31	20
29.62	32.67	35.48	38.93	41.40	46.80	21
30.81	33.92	36.78	40.29	42.80	48.27	22
32.01	35.17	38.08	41.64	44.18	49.73	23
33.20	36.42	39.36	42.98	45.56	51.18	24
34.38	37.65	40.65	44.31	46.93	52.62	25
35.56	38.89	41.92	45.64	48.29	54.05	26
36.74	40.11	43.19	46.96	49.64	55.48	27
37.92	41.34	44.46	48.28	50.99	56.89	28
39.09	42.56	45.72	49.59	52.34	58.30	29
40.26	43.77	46.98	50.89	53.67	59.70	30
51.81	55.76	59.34	63.69	66.77	73.40	40
63.17	67.50	71.42	76.15	79.49	86.66	50
74.40	79.08	83.30	88.38	91.95	99.61	60
85.53	90.53	95.02	100.43	104.21	112.32	70
96.58	101.88	106.63	112.33	116.32	124.84	80
107.57	113.15	118.14	124.12	128.30	137.21	90
118.50	124.34	129.56	135.81	140.17	149.45	100
140.23	146.57	152.21	158.95	163.65	173.62	120
268.47	277.14	284.80	293.89	300.18	313.44	240

For 2-tailed tests and C.I.s use value in column headed by $\alpha/2$.**TABLE**
Percentdf₂

1

2

3

4

5

6

Additional