

## Critical Values of the Chi Square Distribution

Probability Level		.001	.005	.010	.025	.050	.100	.900	.950	.975	.990	.995	.999
dF													
1		.000	.000	.000	.001	.004	.016	2.706	3.841	5.024	6.635	7.879	10.828
2		.002	.010	.020	.051	.103	.211	4.605	5.991	7.378	9.210	10.597	13.816
3		.024	.072	.115	.216	.352	.584	6.251	7.815	9.348	11.345	12.838	16.266
4		.091	.207	.297	.484	.711	1.064	7.779	9.488	11.143	13.277	14.860	18.467
5		.210	.412	.554	.831	1.145	1.610	9.236	11.070	12.833	15.086	16.750	20.515
6		.381	.676	.872	1.237	1.635	2.204	10.645	12.592	14.449	16.812	18.548	22.458
7		.598	.989	1.239	1.690	2.167	2.833	12.017	14.067	16.013	18.475	20.278	24.322
8		.857	1.344	1.646	2.180	2.733	3.490	13.362	15.507	17.535	20.090	21.955	26.124
9		1.152	1.735	2.088	2.700	3.325	4.168	14.684	16.919	19.023	21.666	23.589	27.877
10		1.479	2.156	2.558	3.247	3.940	4.865	15.987	18.307	20.483	23.209	25.188	29.588
11		1.834	2.603	3.053	3.816	4.575	5.578	17.275	19.675	21.920	24.725	26.757	31.264
12		2.214	3.074	3.571	4.404	5.226	6.304	18.549	21.026	23.337	26.217	28.300	32.909
13		2.617	3.565	4.107	5.009	5.892	7.042	19.812	22.362	24.736	27.688	29.819	34.528
14		3.041	4.075	4.660	5.629	6.571	7.790	21.064	23.685	26.119	29.141	31.319	36.123
15		3.483	4.601	5.229	6.262	7.261	8.547	22.307	24.996	27.488	30.578	32.801	37.697
16		3.942	5.142	5.812	6.908	7.962	9.312	23.542	26.296	28.845	32.000	34.267	39.252
17		4.416	5.697	6.408	7.564	8.672	10.085	24.769	27.587	30.191	33.409	35.718	40.790
18		4.905	6.265	7.015	8.231	9.390	10.865	25.989	28.869	31.526	34.805	37.156	42.312
19		5.407	6.844	7.633	8.907	10.117	11.651	27.204	30.144	32.852	36.191	38.582	43.820
20		5.921	7.434	8.260	9.591	10.851	12.443	28.412	31.410	34.170	37.566	39.997	45.315
21		6.447	8.034	8.897	10.283	11.591	13.240	29.615	32.671	35.479	38.932	41.401	46.797
22		6.983	8.643	9.542	10.982	12.338	14.041	30.813	33.924	36.781	40.289	42.796	48.268
23		7.529	9.260	10.196	11.689	13.091	14.848	32.007	35.172	38.076	41.638	44.181	49.728
24		8.085	9.886	10.856	12.401	13.848	15.659	33.196	36.415	39.364	42.980	45.559	51.179
25		8.649	10.520	11.524	13.120	14.611	16.473	34.382	37.652	40.646	44.314	46.928	52.620
26		9.222	11.160	12.198	13.844	15.379	17.292	35.563	38.885	41.923	45.642	48.290	54.052
27		9.803	11.808	12.879	14.573	16.151	18.114	36.741	40.113	43.195	46.963	49.645	55.476
28		10.391	12.461	13.565	15.308	16.928	18.939	37.916	41.337	44.461	48.278	50.993	56.892
29		10.986	13.121	14.256	16.047	17.708	19.768	39.087	42.557	45.722	49.588	52.336	58.301
30		11.588	13.787	14.953	16.791	18.493	20.599	40.256	43.773	46.979	50.892	53.672	59.703
31		12.196	14.458	15.655	17.539	19.281	21.434	41.422	44.985	48.232	52.191	55.003	61.098
32		12.811	15.134	16.362	18.291	20.072	22.271	42.585	46.194	49.480	53.486	56.328	62.487
33		13.431	15.815	17.074	19.047	20.867	23.110	43.745	47.400	50.725	54.776	57.648	63.870
34		14.057	16.501	17.789	19.806	21.664	23.952	44.903	48.602	51.966	56.061	58.964	65.247
35		14.688	17.192	18.509	20.569	22.465	24.797	46.059	49.802	53.203	57.342	60.275	66.619
36		15.324	17.887	19.233	21.336	23.269	25.643	47.212	50.998	54.437	58.619	61.581	67.985
37		15.965	18.586	19.960	22.106	24.075	26.492	48.363	52.192	55.668	59.892	62.883	69.346
38		16.611	19.289	20.691	22.878	24.884	27.343	49.513	53.384	56.896	61.162	64.181	70.703
39		17.262	19.996	21.426	23.654	25.695	28.196	50.660	54.572	58.120	62.428	65.476	72.055
40		17.916	20.707	22.164	24.433	26.509	29.051	51.805	55.758	59.342	63.691	66.766	73.402
45		21.251	24.311	25.901	28.366	30.612	33.350	57.505	61.656	65.410	69.957	73.166	80.077
50		24.674	27.991	29.707	32.357	34.764	37.689	63.167	67.505	71.420	76.154	79.490	86.661
60		31.738	35.534	37.485	40.482	43.188	46.459	74.397	79.082	83.298	88.379	91.952	99.607
70		39.036	43.275	45.442	48.758	51.739	55.329	85.527	90.531	95.023	100.425	104.215	112.317
80		46.520	51.172	53.540	57.153	60.391	64.278	96.578	101.879	106.629	112.329	116.321	124.839