

Chi-Square Critical Values Table — Extended

Full Table | Degrees of Freedom 1–100 | All Significance Levels

statisticsfundamentals.com/tables/chi-square-table/

Complete chi-square reference table covering df 1–100 for all standard significance levels. Values are right-tail critical values. Reject H_0 when χ^2_{calc} exceeds the tabled value.

df	$\alpha = 0.10$	$\alpha = 0.05$	$\alpha = 0.025$	$\alpha = 0.01$	$\alpha = 0.005$
1	2.639	3.748	4.930	6.588	7.907
2	4.560	5.938	7.338	9.223	10.675
3	6.215	7.777	9.326	11.372	12.923
4	7.748	9.458	11.130	13.308	14.944
5	9.209	11.046	12.824	15.120	16.830
6	10.620	12.571	14.444	16.846	18.625
7	11.994	14.049	16.010	18.510	20.353
8	13.341	15.491	17.534	20.125	22.027
9	14.664	16.905	19.023	21.700	23.659
10	15.969	18.294	20.485	23.243	25.256
11	17.258	19.663	21.922	24.758	26.822
12	18.533	21.015	23.340	26.250	28.363
13	19.796	22.352	24.739	27.720	29.881
14	21.049	23.676	26.123	29.173	31.380
15	22.293	24.988	27.493	30.609	32.860
16	23.528	26.289	28.850	32.031	34.325
17	24.756	27.580	30.196	33.439	35.775
18	25.977	28.863	31.532	34.835	37.212

df	$\alpha = 0.10$	$\alpha = 0.05$	$\alpha = 0.025$	$\alpha = 0.01$	$\alpha = 0.005$
19	27.191	30.137	32.858	36.221	38.637
20	28.400	31.405	34.175	37.596	40.050
21	29.604	32.665	35.485	38.961	41.454
22	30.802	33.919	36.787	40.318	42.847
23	31.996	35.168	38.082	41.667	44.232
24	33.186	36.411	39.371	43.008	45.608
25	34.372	37.648	40.653	44.342	46.977
26	35.553	38.881	41.930	45.669	48.338
27	36.732	40.110	43.201	46.990	49.693
28	37.907	41.334	44.468	48.305	51.041
29	39.079	42.554	45.729	49.615	52.382
30	40.247	43.770	46.986	50.919	53.718
31	41.413	44.983	48.239	52.218	55.048
32	42.576	46.192	49.488	53.512	56.373
33	43.737	47.398	50.733	54.802	57.693
34	44.895	48.600	51.974	56.087	59.008
35	46.051	49.800	53.211	57.368	60.318
36	47.205	50.997	54.445	58.645	61.624
37	48.356	52.191	55.676	59.918	62.926
38	49.505	53.382	56.903	61.187	64.224
39	50.653	54.571	58.128	62.453	65.518
40	51.798	55.757	59.350	63.716	66.808
41	52.942	56.941	60.569	64.975	68.094
42	54.084	58.123	61.785	66.231	69.377
43	55.224	59.303	62.999	67.484	70.656

df	$\alpha = 0.10$	$\alpha = 0.05$	$\alpha = 0.025$	$\alpha = 0.01$	$\alpha = 0.005$
44	56.362	60.480	64.210	68.734	71.933
45	57.499	61.656	65.418	69.981	73.206
46	58.634	62.829	66.625	71.226	74.476
47	59.768	64.001	67.829	72.467	75.743
48	60.901	65.171	69.031	73.707	77.008
49	62.032	66.339	70.231	74.943	78.269
50	63.161	67.505	71.429	76.178	79.528
51	64.290	68.670	72.625	77.410	80.785
52	65.417	69.832	73.818	78.639	82.039
53	66.543	70.994	75.010	79.867	83.290
54	67.668	72.154	76.201	81.092	84.539
55	68.791	73.312	77.389	82.315	85.786

Chi-Square Critical Values Table — Extended (continued)

Degrees of Freedom 56–100

[statisticsfundamentals.com/tables/chi-square-table/](https://www.statisticsfundamentals.com/tables/chi-square-table/)

df	$\alpha = 0.10$	$\alpha = 0.05$	$\alpha = 0.025$	$\alpha = 0.01$	$\alpha = 0.005$
56	69.913	74.469	78.576	83.537	87.031
57	71.035	75.625	79.761	84.756	88.273
58	72.155	76.779	80.944	85.973	89.513
59	73.274	77.931	82.126	87.189	90.752
60	74.392	79.083	83.307	88.402	91.988
61	75.509	80.233	84.485	89.614	93.222
62	76.626	81.382	85.663	90.824	94.454
63	77.741	82.530	86.839	92.033	95.685
64	78.855	83.677	88.013	93.239	96.914
65	79.969	84.822	89.186	94.445	98.140
66	81.081	85.966	90.358	95.648	99.366
67	82.193	87.110	91.528	96.850	100.589
68	83.304	88.252	92.698	98.051	101.811
69	84.414	89.393	93.866	99.250	103.031
70	85.523	90.533	95.032	100.447	104.249
71	86.631	91.672	96.198	101.644	105.466
72	87.739	92.810	97.362	102.838	106.682
73	88.846	93.947	98.526	104.032	107.896
74	89.952	95.083	99.688	105.224	109.108

df	$\alpha = 0.10$	$\alpha = 0.05$	$\alpha = 0.025$	$\alpha = 0.01$	$\alpha = 0.005$
75	91.058	96.219	100.849	106.415	110.319
76	92.163	97.353	102.009	107.604	111.529
77	93.267	98.487	103.168	108.793	112.737
78	94.370	99.619	104.325	109.980	113.944
79	95.473	100.751	105.482	111.166	115.150
80	96.575	101.882	106.638	112.350	116.354
81	97.676	103.012	107.793	113.534	117.557
82	98.777	104.141	108.947	114.716	118.759
83	99.877	105.270	110.100	115.898	119.960
84	100.977	106.397	111.252	117.078	121.159
85	102.076	107.524	112.403	118.257	122.357
86	103.174	108.651	113.553	119.435	123.554
87	104.272	109.776	114.703	120.612	124.750
88	105.369	110.901	115.851	121.788	125.945
89	106.466	112.025	116.999	122.964	127.138
90	107.562	113.148	118.146	124.138	128.331
91	108.658	114.271	119.292	125.311	129.522
92	109.753	115.393	120.437	126.483	130.713
93	110.847	116.514	121.581	127.654	131.902
94	111.941	117.635	122.725	128.824	133.091
95	113.035	118.755	123.868	129.994	134.278
96	114.128	119.874	125.010	131.162	135.464
97	115.221	120.993	126.151	132.330	136.650
98	116.313	122.111	127.292	133.497	137.834
99	117.404	123.229	128.432	134.663	139.018

df	$\alpha = 0.10$	$\alpha = 0.05$	$\alpha = 0.025$	$\alpha = 0.01$	$\alpha = 0.005$
100	118.496	124.345	129.571	135.828	140.200

StatisticsFundamentals.com | statisticsfundamentals.com/tables/chi-square-table/ | Values rounded to 3 decimal places.