

TABLA 3-Distribución Chi Cuadrado χ^2

P = Probabilidad de encontrar un valor mayor o igual que el chi cuadrado tabulado, v = Grados de Libertad

v/p	0,001	0,0025	0,005	0,01	0,025	0,05	0,1	0,15	0,2	0,25	0,3	0,35	0,4	0,45	0,5
1	10,8274	9,1404	7,8794	6,6349	5,0239	3,8415	2,7055	2,0722	1,6424	1,3233	1,0742	0,8735	0,7083	0,5707	0,4549
2	13,8150	11,9827	10,5965	9,2104	7,3778	5,9915	4,6052	3,7942	3,2189	2,7726	2,4079	2,0996	1,8326	1,5970	1,3863
3	16,2660	14,3202	12,8381	11,3449	9,3484	7,8147	6,2514	5,3170	4,6416	4,1083	3,6649	3,2831	2,9462	2,6430	2,3660
4	18,4662	16,4238	14,8602	13,2767	11,1433	9,4877	7,7794	6,7449	5,9886	5,3853	4,8784	4,4377	4,0446	3,6871	3,3567
5	20,5147	18,3854	16,7496	15,0863	12,8325	11,0705	9,2363	8,1152	7,2893	6,6257	6,0644	5,5731	5,1319	4,7278	4,3515
6	22,4575	20,2491	18,5475	16,8119	14,4494	12,5916	10,6446	9,4461	8,5581	7,8408	7,2311	6,6948	6,2108	5,7652	5,3481
7	24,3213	22,0402	20,2777	18,4753	16,0128	14,0671	12,0170	10,7479	9,8032	9,0371	8,3834	7,8061	7,2832	6,8000	6,3458
8	26,1239	23,7742	21,9549	20,0902	17,5345	15,5073	13,3616	12,0271	11,0301	10,2189	9,5245	8,9094	8,3505	7,8325	7,3441
9	27,8767	25,4625	23,5893	21,6660	19,0228	16,9190	14,6837	13,2880	12,2421	11,3887	10,6564	10,0060	9,4136	8,8632	8,3428
10	29,5879	27,1119	25,1881	23,2093	20,4832	18,3070	15,9872	14,5339	13,4420	12,5489	11,7807	11,0971	10,4732	9,8922	9,3418
11	31,2635	28,7291	26,7569	24,7250	21,9200	19,6752	17,2750	15,7671	14,6314	13,7007	12,8987	12,1836	11,5298	10,9199	10,3410
12	32,9092	30,3182	28,2997	26,2170	23,3367	21,0261	18,5493	16,9893	15,8120	14,8454	14,0111	13,2661	12,5838	11,9463	11,3403
13	34,5274	31,8830	29,8193	27,6882	24,7356	22,3620	19,8119	18,2020	16,9848	15,9839	15,1187	14,3451	13,6356	12,9717	12,3398
14	36,1239	33,4262	31,3194	29,1412	26,1189	23,6848	21,0641	19,4062	18,1508	17,1169	16,2221	15,4209	14,6853	13,9961	13,3393
15	37,6978	34,9494	32,8015	30,5780	27,4884	24,9958	22,3071	20,6030	19,3107	18,2451	17,3217	16,4940	15,7332	15,0197	14,3389
16	39,2518	36,4555	34,2671	31,9999	28,8453	26,2962	23,5418	21,7931	20,4651	19,3689	18,4179	17,5646	16,7795	16,0425	15,3385
17	40,7911	37,9462	35,7184	33,4087	30,1910	27,5871	24,7690	22,9770	21,6146	20,4887	19,5110	18,6330	17,8244	17,0646	16,3382
18	42,3119	39,4220	37,1564	34,8052	31,5264	28,8693	25,9894	24,1555	22,7595	21,6049	20,6014	19,6993	18,8679	18,0860	17,3379
19	43,8194	40,8847	38,5821	36,1908	32,8523	30,1435	27,2036	25,3289	23,9004	22,7178	21,6891	20,7638	19,9102	19,1069	18,3376
20	45,3142	42,3358	39,9969	37,5663	34,1696	31,4104	28,4120	26,4976	25,0375	23,8277	22,7745	21,8265	20,9514	20,1272	19,3374
21	46,7963	43,7749	41,4009	38,9322	35,4789	32,6706	29,6151	27,6620	26,1711	24,9348	23,8578	22,8876	21,9915	21,1470	20,3372
22	48,2676	45,2041	42,7957	40,2894	36,7807	33,9245	30,8133	28,8224	27,3015	26,0393	24,9390	23,9473	23,0307	22,1663	21,3370
23	49,7276	46,6231	44,1814	41,6383	38,0756	35,1725	32,0069	29,9792	28,4288	27,1413	26,0184	25,0055	24,0689	23,1852	22,3369
24	51,1790	48,0336	45,5584	42,9798	39,3641	36,4150	33,1962	31,1325	29,5533	28,2412	27,0960	26,0625	25,1064	24,2037	23,3367
25	52,6187	49,4351	46,9280	44,3140	40,6465	37,6525	34,3816	32,2825	30,6752	29,3388	28,1719	27,1183	26,1430	25,2218	24,3366
26	54,0511	50,8291	48,2898	45,6416	41,9231	38,8851	35,5632	33,4295	31,7946	30,4346	29,2463	28,1730	27,1789	26,2395	25,3365
27	55,4751	52,2152	49,6450	46,9628	43,1945	40,1133	36,7412	34,5736	32,9117	31,5284	30,3193	29,2266	28,2141	27,2569	26,3363
28	56,8918	53,5939	50,9936	48,2782	44,4608	41,3372	37,9159	35,7150	34,0266	32,6205	31,3909	30,2791	29,2486	28,2740	27,3362
29	58,3006	54,9662	52,3355	49,5878	45,7223	42,5569	39,0875	36,8538	35,1394	33,7109	32,4612	31,3308	30,2825	29,2908	28,3361

TABLA 3-Distribución Chi Cuadrado χ^2 . (Continuación)

v/p	0,55	0,6	0,65	0,7	0,75	0,8	0,85	0,9	0,95	0,975	0,99	0,995	0,9975	0,999
1	0,3573	0,2750	0,2059	0,1485	0,1015	0,0642	0,0358	0,0158	0,0039	0,0010	0,0002	0,0000	0,0000	0,0000
2	1,1957	1,0217	0,8616	0,7133	0,5754	0,4463	0,3250	0,2107	0,1026	0,0506	0,0201	0,0100	0,0050	0,0020
3	2,1095	1,8692	1,6416	1,4237	1,2125	1,0052	0,7978	0,5844	0,3518	0,2158	0,1148	0,0717	0,0449	0,0243
4	3,0469	2,7528	2,4701	2,1947	1,9226	1,6488	1,3665	1,0636	0,7107	0,4844	0,2971	0,2070	0,1449	0,0908
5	3,9959	3,6555	3,3251	2,9999	2,6746	2,3425	1,9938	1,6103	1,1455	0,8312	0,5543	0,4118	0,3075	0,2102
6	4,9519	4,5702	4,1973	3,8276	3,4546	3,0701	2,6613	2,2041	1,6354	1,2373	0,8721	0,6757	0,5266	0,3810
7	5,9125	5,4932	5,0816	4,6713	4,2549	3,8223	3,3583	2,8331	2,1673	1,6899	1,2390	0,9893	0,7945	0,5985
8	6,8766	6,4226	5,9753	5,5274	5,0706	4,5936	4,0782	3,4895	2,7326	2,1797	1,6465	1,3444	1,1042	0,8571
9	7,8434	7,3570	6,8763	6,3933	5,8988	5,3801	4,8165	4,1682	3,3251	2,7004	2,0879	1,7349	1,4501	1,1519
10	8,8124	8,2955	7,7832	7,2672	6,7372	6,1791	5,5701	4,8652	3,9403	3,2470	2,5582	2,1558	1,8274	1,4787
11	9,7831	9,2373	8,6952	8,1479	7,5841	6,9887	6,3364	5,5778	4,5748	3,8157	3,0535	2,6032	2,2321	1,8338
12	10,7553	10,1820	9,6115	9,0343	8,4384	7,8073	7,1138	6,3038	5,2260	4,4038	3,5706	3,0738	2,6612	2,2141
13	11,7288	11,1291	10,5315	9,9257	9,2991	8,6339	7,9008	7,0415	5,8919	5,0087	4,1069	3,5650	3,1118	2,6172
14	12,7034	12,0785	11,4548	10,8215	10,1653	9,4673	8,6963	7,7895	6,5706	5,6287	4,6604	4,0747	3,5820	3,0407
15	13,6790	13,0298	12,3809	11,7212	11,0365	10,3070	9,4993	8,5468	7,2609	6,2621	5,2294	4,6009	4,0697	3,4825
16	14,6555	13,9827	13,3096	12,6243	11,9122	11,1521	10,3090	9,3122	7,9616	6,9077	5,8122	5,1422	4,5734	3,9417
17	15,6328	14,9373	14,2406	13,5307	12,7919	12,0023	11,1249	10,0852	8,6718	7,5642	6,4077	5,6973	5,0916	4,4162
18	16,6108	15,8932	15,1738	14,4399	13,6753	12,8570	11,9462	10,8649	9,3904	8,2307	7,0149	6,2648	5,6234	4,9048
19	17,5894	16,8504	16,1089	15,3517	14,5620	13,7158	12,7727	11,6509	10,1170	8,9065	7,6327	6,8439	6,1673	5,4067
20	18,5687	17,8088	17,0458	16,2659	15,4518	14,5784	13,6039	12,4426	10,8508	9,5908	8,2604	7,4338	6,7228	5,9210
21	19,5485	18,7683	17,9843	17,1823	16,3444	15,4446	14,4393	13,2396	11,5913	10,2829	8,8972	8,0336	7,2889	6,4467
22	20,5288	19,7288	18,9243	18,1007	17,2396	16,3140	15,2787	14,0415	12,3380	10,9823	9,5425	8,6427	7,8648	6,9829
23	21,5095	20,6902	19,8657	19,0211	18,1373	17,1865	16,1219	14,8480	13,0905	11,6885	10,1957	9,2604	8,4503	7,5291
24	22,4908	21,6525	20,8084	19,9432	19,0373	18,0618	16,9686	15,6587	13,8484	12,4011	10,8563	9,8862	9,0441	8,0847
25	23,4724	22,6156	21,7524	20,8670	19,9393	18,9397	17,8184	16,4734	14,6114	13,1197	11,5240	10,5196	9,6462	8,6494
26	24,4544	23,5794	22,6975	21,7924	20,8434	19,8202	18,6714	17,2919	15,3792	13,8439	12,1982	11,1602	10,2561	9,2222
27	25,4367	24,5440	23,6437	22,7192	21,7494	20,7030	19,5272	18,1139	16,1514	14,5734	12,8785	11,8077	10,8733	9,8029
28	26,4195	25,5092	24,5909	23,6475	22,6572	21,5880	20,3857	18,9392	16,9279	15,3079	13,5647	12,4613	11,4973	10,3907
29	27,4025	26,4751	25,5391	24,5770	23,5666	22,4751	21,2468	19,7677	17,7084	16,0471	14,2564	13,1211	12,1278	10,9861

TABLA 3-Distribución Chi Cuadrado χ^2 . (Continuación)

v/p	0,55	0,6	0,65	0,7	0,75	0,8	0,85	0,9	0,95	0,975	0,99	0,995	0,9975	0,999
30	28,3858	27,4416	26,4881	25,5078	24,4776	23,3641	22,1103	20,5992	18,4927	16,7908	14,9535	13,7867	12,7646	11,5876
31	29,3694	28,4087	27,4381	26,4397	25,3901	24,2551	22,9762	21,4336	19,2806	17,5387	15,6555	14,4577	13,4073	12,1961
32	30,3533	29,3763	28,3889	27,3728	26,3041	25,1478	23,8442	22,2706	20,0719	18,2908	16,3622	15,1340	14,0555	12,8104
33	31,3375	30,3444	29,3405	28,3069	27,2194	26,0422	24,7143	23,1102	20,8665	19,0467	17,0735	15,8152	14,7092	13,4312
34	32,3219	31,3130	30,2928	29,2421	28,1361	26,9383	25,5864	23,9522	21,6643	19,8062	17,7891	16,5013	15,3679	14,0568
35	33,3065	32,2821	31,2458	30,1782	29,0540	27,8359	26,4604	24,7966	22,4650	20,5694	18,5089	17,1917	16,0315	14,6881
36	34,2913	33,2517	32,1995	31,1152	29,9730	28,7350	27,3363	25,6433	23,2686	21,3359	19,2326	17,8868	16,7000	15,3243
37	35,2764	34,2216	33,1539	32,0532	30,8933	29,6355	28,2138	26,4921	24,0749	22,1056	19,9603	18,5859	17,3730	15,9652
38	36,2617	35,1920	34,1089	32,9919	31,8146	30,5373	29,0931	27,3430	24,8839	22,8785	20,6914	19,2888	18,0501	16,6109
39	37,2472	36,1628	35,0645	33,9315	32,7369	31,4405	29,9739	28,1958	25,6954	23,6543	21,4261	19,9958	18,7318	17,2612
40	38,2328	37,1340	36,0207	34,8719	33,6603	32,3449	30,8563	29,0505	26,5093	24,4331	22,1642	20,7066	19,4171	17,9166
45	43,1638	41,9950	40,8095	39,5847	38,2910	36,8844	35,2895	33,3504	30,6123	28,3662	25,9012	24,3110	22,8994	21,2509
50	48,0986	46,8638	45,6100	44,3133	42,9421	41,4492	39,7539	37,6886	34,7642	32,3574	29,7067	27,9908	26,4636	24,6736
55	53,0367	51,7391	50,4204	49,0554	47,6105	46,0356	44,2448	42,0596	38,9581	36,3981	33,5705	31,7349	30,0974	28,1731
60	57,9775	56,6200	55,2394	53,8091	52,2938	50,6406	48,7587	46,4589	43,1880	40,4817	37,4848	35,5344	33,7909	31,7381
70	67,8664	66,3961	64,8990	63,3460	61,6983	59,8978	57,8443	55,3289	51,7393	48,7575	45,4417	43,2753	41,3323	39,0358
80	77,7631	76,1879	74,5825	72,9153	71,1445	69,2070	66,9938	64,2778	60,3915	57,1532	53,5400	51,1719	49,0430	46,5197
90	87,6661	85,9925	84,2854	82,5111	80,6247	78,5584	76,1954	73,2911	69,1260	65,6466	61,7540	59,1963	56,8918	54,1559
100	97,5744	95,8078	94,0046	92,1290	90,1332	87,9453	85,4406	82,3581	77,9294	74,2219	70,0650	67,3275	64,8571	61,9182
120	117,4041	115,4646	113,4825	111,4186	109,2197	106,8056	104,0374	100,6236	95,7046	91,5726	86,9233	83,8517	81,0726	77,7555
140	137,2476	135,1491	133,0028	130,7657	128,3800	125,7580	122,7476	119,0293	113,6594	109,1368	104,0343	100,6547	97,5908	93,9253
160	157,1019	154,8555	152,5564	150,1583	147,5988	144,7834	141,5475	137,5457	131,7560	126,8700	121,3457	117,6791	114,3496	110,3592
180	176,9652	174,5799	172,1373	169,5879	166,8653	163,8682	160,4206	156,1526	149,9687	144,7413	138,8205	134,8843	131,3050	127,0114
200	196,8359	194,3193	191,7409	189,0486	186,1717	183,0028	179,3550	174,8353	168,2785	162,7280	156,4321	152,2408	148,4262	143,8420
250	246,5387	243,7202	240,8297	237,8085	234,5768	231,0128	226,9048	221,8059	214,3915	208,0978	200,9387	196,1604	191,8020	186,5537
300	296,2700	293,1786	290,0062	286,6878	283,1353	279,2143	274,6901	269,0679	260,8781	253,9122	245,9727	240,6631	235,8126	229,9620
500	495,3734	491,3709	487,2569	482,9462	478,3231	473,2099	467,2962	459,9261	449,1467	439,9360	429,3874	422,3034	415,8081	407,9458
600	594,9938	590,6057	586,0930	581,3623	576,2859	570,6681	564,1661	556,0560	544,1801	534,0185	522,3654	514,5285	507,3385	498,6219