

Chi-Square and F-table

For F, Numerator df on top, denominator df on side Upper Tail Probabilities

df	t(.05)	t(.025)	X2(.05)	F(.05,1)	F(.05,2)	F(.05,3)	F(.05,4)	F(.05,5)	F(.05,6)	F(.05,7)	F(.05,8)	F(.05,9)	F(.05,10)	F(.05,11)	F(.05,12)
1	6.314	12.706	3.841	161.448	199.500	215.707	224.583	230.162	233.986	236.768	238.883	240.543	241.882	242.983	243.906
2	2.920	4.303	5.991	18.513	19.000	19.164	19.247	19.296	19.330	19.353	19.371	19.385	19.396	19.405	19.413
3	2.353	3.182	7.815	10.128	9.552	9.277	9.117	9.013	8.941	8.887	8.845	8.812	8.786	8.763	8.745
4	2.132	2.776	9.488	7.709	6.944	6.591	6.388	6.256	6.163	6.094	6.041	5.999	5.964	5.936	5.912
5	2.015	2.571	11.070	6.608	5.786	5.409	5.192	5.050	4.950	4.876	4.818	4.772	4.735	4.704	4.678
6	1.943	2.447	12.592	5.987	5.143	4.757	4.534	4.387	4.284	4.207	4.147	4.099	4.060	4.027	4.000
7	1.895	2.365	14.067	5.591	4.737	4.347	4.120	3.972	3.866	3.787	3.726	3.677	3.637	3.603	3.575
8	1.860	2.306	15.507	5.318	4.459	4.066	3.838	3.687	3.581	3.500	3.438	3.388	3.347	3.313	3.284
9	1.833	2.262	16.919	5.117	4.256	3.863	3.633	3.482	3.374	3.293	3.230	3.179	3.137	3.102	3.073
10	1.812	2.228	18.307	4.965	4.103	3.708	3.478	3.326	3.217	3.135	3.072	3.020	2.978	2.943	2.913
11	1.796	2.201	19.675	4.844	3.982	3.587	3.357	3.204	3.095	3.012	2.948	2.896	2.854	2.818	2.788
12	1.782	2.179	21.026	4.747	3.885	3.490	3.259	3.106	2.996	2.913	2.849	2.796	2.753	2.717	2.687
13	1.771	2.160	22.362	4.667	3.806	3.411	3.179	3.025	2.915	2.832	2.767	2.714	2.671	2.635	2.604
14	1.761	2.145	23.685	4.600	3.739	3.344	3.112	2.958	2.848	2.764	2.699	2.646	2.602	2.565	2.534
15	1.753	2.131	24.996	4.543	3.682	3.287	3.056	2.901	2.790	2.707	2.641	2.588	2.544	2.507	2.475
16	1.746	2.120	26.296	4.494	3.634	3.239	3.007	2.852	2.741	2.657	2.591	2.538	2.494	2.456	2.425
17	1.740	2.110	27.587	4.451	3.592	3.197	2.965	2.810	2.699	2.614	2.548	2.494	2.450	2.413	2.381
18	1.734	2.101	28.869	4.414	3.555	3.160	2.928	2.773	2.661	2.577	2.510	2.456	2.412	2.374	2.342
19	1.729	2.093	30.144	4.381	3.522	3.127	2.895	2.740	2.628	2.544	2.477	2.423	2.378	2.340	2.308
20	1.725	2.086	31.410	4.351	3.493	3.098	2.866	2.711	2.599	2.514	2.447	2.393	2.348	2.310	2.278
21	1.721	2.080	32.671	4.325	3.467	3.072	2.840	2.685	2.573	2.488	2.420	2.366	2.321	2.283	2.250
22	1.717	2.074	33.924	4.301	3.443	3.049	2.817	2.661	2.549	2.464	2.397	2.342	2.297	2.259	2.226
23	1.714	2.069	35.172	4.279	3.422	3.028	2.796	2.640	2.528	2.442	2.375	2.320	2.275	2.236	2.204
24	1.711	2.064	36.415	4.260	3.403	3.009	2.776	2.621	2.508	2.423	2.355	2.300	2.255	2.216	2.183
25	1.708	2.060	37.652	4.242	3.385	2.991	2.759	2.603	2.490	2.405	2.337	2.282	2.236	2.198	2.165
26	1.706	2.056	38.885	4.225	3.369	2.975	2.743	2.587	2.474	2.388	2.321	2.265	2.220	2.181	2.148
27	1.703	2.052	40.113	4.210	3.354	2.960	2.728	2.572	2.459	2.373	2.305	2.250	2.204	2.166	2.132
28	1.701	2.048	41.337	4.196	3.340	2.947	2.714	2.558	2.445	2.359	2.291	2.236	2.190	2.151	2.118
29	1.699	2.045	42.557	4.183	3.328	2.934	2.701	2.545	2.432	2.346	2.278	2.223	2.177	2.138	2.104
30	1.697	2.042	43.773	4.171	3.316	2.922	2.690	2.534	2.421	2.334	2.266	2.211	2.165	2.126	2.092
40	1.684	2.021	55.758	4.085	3.232	2.839	2.606	2.449	2.336	2.249	2.180	2.124	2.077	2.038	2.003
50	1.676	2.009	67.505	4.034	3.183	2.790	2.557	2.400	2.286	2.199	2.130	2.073	2.026	1.986	1.952
60	1.671	2.000	79.082	4.001	3.150	2.758	2.525	2.368	2.254	2.167	2.097	2.040	1.993	1.952	1.917
70	1.667	1.994	90.531	3.978	3.128	2.736	2.503	2.346	2.231	2.143	2.074	2.017	1.969	1.928	1.893
80	1.664	1.990	101.879	3.960	3.111	2.719	2.486	2.329	2.214	2.126	2.056	1.999	1.951	1.910	1.875
90	1.662	1.987	113.145	3.947	3.098	2.706	2.473	2.316	2.201	2.113	2.043	1.986	1.938	1.897	1.861
100	1.660	1.984	124.342	3.936	3.087	2.696	2.463	2.305	2.191	2.103	2.032	1.975	1.927	1.886	1.850
110	1.659	1.982	135.480	3.927	3.079	2.687	2.454	2.297	2.182	2.094	2.024	1.966	1.918	1.877	1.841
120	1.658	1.980	146.567	3.920	3.072	2.680	2.447	2.290	2.175	2.087	2.016	1.959	1.910	1.869	1.834
130	1.657	1.978	157.610	3.914	3.066	2.674	2.441	2.284	2.169	2.081	2.010	1.953	1.904	1.863	1.827
140	1.656	1.977	168.613	3.909	3.061	2.669	2.436	2.279	2.164	2.076	2.005	1.947	1.899	1.858	1.822
150	1.655	1.976	179.581	3.904	3.056	2.665	2.432	2.274	2.160	2.071	2.001	1.943	1.894	1.853	1.817
160	1.654	1.975	190.516	3.900	3.053	2.661	2.428	2.271	2.156	2.067	1.997	1.939	1.890	1.849	1.813
170	1.654	1.974	201.423	3.897	3.049	2.658	2.425	2.267	2.152	2.064	1.993	1.935	1.887	1.845	1.810
180	1.653	1.973	212.304	3.894	3.046	2.655	2.422	2.264	2.149	2.061	1.990	1.932	1.884	1.842	1.806
190	1.653	1.973	223.160	3.891	3.043	2.652	2.419	2.262	2.147	2.058	1.987	1.929	1.881	1.839	1.803
200	1.653	1.972	233.994	3.888	3.041	2.650	2.417	2.259	2.144	2.056	1.985	1.927	1.878	1.837	1.801
∞	1.645	1.960	#N/A	3.841	2.996	2.605	2.372	2.214	2.099	2.010	1.938	1.880	1.831	1.789	1.752