

Table 10 F distribution — inverse cdf

<i>df</i> ₂	<i>df</i> ₁														
	1	2	3	4	5	6	7	8	10	12	24	60	120	∞	
1	161.4	199.5	215.7	224.6	230.2	234.0	236.8	238.9	241.9	243.9	249.1	252.2	253.3	254.3	0.95
1	647.8	799.5	864.2	899.6	921.8	937.1	948.2	956.6	968.6	976.7	997.3	1010	1014	1018.3	0.975
1	4052	4999	5404	5624	5764	5859	5928	5981	6056	6107	6234	6313	6340	6366.0	0.99
1	405K	500K	540K	563K	576K	586K	593K	598K	606K	610K	624K	631K	634K	637K	0.999
2	18.51	19.00	19.16	19.25	19.30	19.33	19.35	19.37	19.40	19.41	19.45	19.48	19.49	19.50	0.95
2	38.51	39.00	39.17	39.25	39.30	39.33	39.36	39.37	39.40	39.41	39.46	39.48	39.49	39.50	0.975
2	98.50	99.00	99.16	99.25	99.30	99.33	99.36	99.38	99.40	99.42	99.46	99.48	99.49	99.50	0.99
2	998.4	998.8	999.3	999.3	999.3	999.3	999.3	999.3	999.3	999.3	999.3	999.3	999.3	999.3	0.999
3	10.13	9.552	9.277	9.117	9.013	8.941	8.887	8.845	8.785	8.745	8.638	8.572	8.549	8.526	0.95
3	17.44	16.04	15.44	15.10	14.88	14.73	14.62	14.54	14.42	14.34	14.12	13.99	13.95	13.90	0.975
3	34.12	30.82	29.46	28.71	28.24	27.91	27.67	27.49	27.23	27.05	26.60	26.32	26.22	26.13	0.99
3	167.1	148.5	141.1	137.1	134.6	132.8	131.6	130.6	129.2	128.3	125.9	124.4	124.0	123.5	0.999
4	7.709	6.944	6.591	6.388	6.256	6.163	6.094	6.041	5.964	5.912	5.774	5.688	5.658	5.628	0.95
4	12.218	10.649	9.979	9.604	9.364	9.197	9.074	8.980	8.844	8.751	8.511	8.360	8.309	8.257	0.975
4	21.20	18.00	16.69	15.98	15.52	15.21	14.98	14.80	14.55	14.37	13.93	13.65	13.56	13.46	0.99
4	74.13	61.25	56.17	53.43	51.72	50.52	49.65	49.00	48.05	47.41	45.77	44.75	44.40	44.05	0.999
5	6.608	5.786	5.409	5.192	5.050	4.950	4.876	4.818	4.735	4.678	4.527	4.431	4.398	4.365	0.95
5	10.01	8.434	7.764	7.388	7.146	6.978	6.853	6.757	6.619	6.525	6.278	6.123	6.069	6.015	0.975
5	16.26	13.27	12.06	11.39	10.97	10.67	10.46	10.29	10.05	9.888	9.466	9.202	9.112	9.020	0.99
5	47.18	37.12	33.20	31.08	29.75	28.83	28.17	27.65	26.91	26.42	25.13	24.33	24.06	23.78	0.999
6	5.987	5.143	4.757	4.534	4.387	4.284	4.207	4.147	4.060	4.000	3.841	3.740	3.705	3.669	0.95
6	8.813	7.260	6.599	6.227	5.988	5.820	5.695	5.600	5.461	5.366	5.117	4.959	4.904	4.849	0.975
6	13.75	10.92	9.780	9.148	8.746	8.466	8.260	8.102	7.874	7.718	7.313	7.057	6.969	6.880	0.99
6	35.51	27.00	23.71	21.92	20.80	20.03	19.46	19.03	18.41	17.99	16.90	16.21	15.98	15.75	0.999
7	5.591	4.737	4.347	4.120	3.972	3.866	3.787	3.726	3.637	3.575	3.410	3.304	3.267	3.230	0.95
7	8.073	6.542	5.890	5.523	5.285	5.119	4.995	4.899	4.761	4.666	4.415	4.254	4.199	4.142	0.975
7	12.25	9.547	8.451	7.847	7.460	7.191	6.993	6.840	6.620	6.469	6.074	5.824	5.737	5.650	0.99
7	29.25	21.69	18.77	17.20	16.21	15.52	15.02	14.63	14.08	13.71	12.73	12.12	11.91	11.70	0.999
8	5.318	4.459	4.066	3.838	3.688	3.581	3.500	3.438	3.347	3.284	3.115	3.005	2.967	2.928	0.95
8	7.571	6.059	5.416	5.053	4.817	4.652	4.529	4.433	4.295	4.200	3.947	3.784	3.728	3.670	0.975
8	11.26	8.649	7.591	7.006	6.632	6.371	6.178	6.029	5.814	5.667	5.279	5.032	4.946	4.859	0.99
8	25.41	18.49	15.83	14.39	13.48	12.86	12.40	12.05	11.54	11.19	10.30	9.728	9.532	9.333	0.999
9	5.117	4.256	3.863	3.633	3.482	3.374	3.293	3.230	3.137	3.073	2.900	2.787	2.748	2.707	0.95
9	7.209	5.715	5.078	4.718	4.484	4.320	4.197	4.102	3.964	3.868	3.614	3.449	3.392	3.333	0.975
9	10.56	8.022	6.992	6.422	6.057	5.802	5.613	5.467	5.257	5.111	4.729	4.483	4.398	4.311	0.99
9	22.86	16.39	13.90	12.56	11.71	11.13	10.70	10.37	9.894	9.570	8.724	8.186	8.002	7.813	0.999
10	4.965	4.103	3.708	3.478	3.326	3.217	3.135	3.072	2.978	2.913	2.737	2.621	2.580	2.538	0.95
10	6.937	5.456	4.826	4.468	4.236	4.072	3.950	3.855	3.717	3.621	3.365	3.198	3.140	3.080	0.975
10	10.04	7.559	6.552	5.994	5.636	5.386	5.200	5.057	4.849	4.706	4.327	4.082	3.996	3.909	0.99
10	21.04	14.90	12.55	11.28	10.48	9.926	9.517	9.204	8.754	8.446	7.638	7.122	6.944	6.763	0.999
11	4.844	3.982	3.587	3.357	3.204	3.095	3.012	2.948	2.854	2.788	2.609	2.490	2.448	2.404	0.95
11	6.724	5.256	4.630	4.275	4.044	3.881	3.759	3.664	3.526	3.430	3.173	3.004	2.944	2.883	0.975
11	9.646	7.206	6.217	5.668	5.316	5.069	4.886	4.744	4.539	4.397	4.021	3.776	3.690	3.602	0.99
11	19.69	13.81	11.56	10.35	9.579	9.047	8.655	8.355	7.923	7.625	6.848	6.348	6.175	5.999	0.999
12	4.747	3.885	3.490	3.259	3.106	2.996	2.913	2.849	2.753	2.687	2.505	2.384	2.341	2.296	0.95
12	6.554	5.096	4.474	4.121	3.891	3.728	3.607	3.512	3.374	3.277	3.019	2.848	2.787	2.725	0.975
12	9.330	6.927	5.953	5.412	5.064	4.821	4.640	4.499	4.296	4.155	3.780	3.535	3.449	3.361	0.99
12	18.64	12.97	10.80	9.633	8.892	8.378	8.001	7.711	7.292	7.005	6.249	5.763	5.593	5.420	0.999
14	4.600	3.739	3.344	3.112	2.958	2.848	2.764	2.699	2.602	2.534	2.349	2.223	2.178	2.131	0.95
14	6.298	4.857	4.242	3.892	3.663	3.501	3.380	3.285	3.147	3.050	2.789	2.614	2.552	2.487	0.975
14	8.862	6.515	5.564	5.035	4.695	4.456	4.278	4.140	3.939	3.800	3.427	3.181	3.094	3.004	0.99
14	17.14	11.78	9.730	8.622	7.922	7.436	7.078	6.802	6.404	6.130	5.407	4.938	4.773	4.604	0.999

df_2	df_1														
	1	2	3	4	5	6	7	8	10	12	24	60	120	∞	
16	4.494	3.634	3.239	3.007	2.852	2.741	2.657	2.591	2.494	2.425	2.235	2.106	2.059	2.010	0.95
16	6.115	4.687	4.077	3.729	3.502	3.341	3.219	3.125	2.986	2.889	2.625	2.447	2.383	2.316	0.975
16	8.531	6.226	5.292	4.773	4.437	4.202	4.026	3.890	3.691	3.553	3.181	2.933	2.845	2.753	0.99
16	16.12	10.97	9.006	7.944	7.272	6.805	6.460	6.195	5.812	5.547	4.846	4.388	4.226	4.059	0.999
18	4.414	3.555	3.160	2.928	2.773	2.661	2.577	2.510	2.412	2.342	2.150	2.017	1.968	1.917	0.95
18	5.978	4.560	3.954	3.608	3.382	3.221	3.100	3.005	2.866	2.769	2.503	2.321	2.256	2.187	0.975
18	8.285	6.013	5.092	4.579	4.248	4.015	3.841	3.705	3.508	3.371	2.999	2.749	2.660	2.566	0.99
18	15.38	10.39	8.487	7.460	6.808	6.355	6.021	5.763	5.390	5.132	4.447	3.996	3.836	3.670	0.999
20	4.351	3.493	3.098	2.866	2.711	2.599	2.514	2.447	2.348	2.278	2.082	1.946	1.896	1.843	0.95
20	5.871	4.461	3.859	3.515	3.289	3.128	3.007	2.913	2.774	2.676	2.408	2.223	2.156	2.085	0.975
20	8.096	5.849	4.938	4.431	4.103	3.871	3.699	3.564	3.368	3.231	2.859	2.608	2.517	2.421	0.99
20	14.82	9.953	8.098	7.096	6.461	6.019	5.692	5.440	5.075	4.823	4.149	3.703	3.544	3.378	0.999
24	4.260	3.403	3.009	2.776	2.621	2.508	2.423	2.355	2.255	2.183	1.984	1.842	1.790	1.733	0.95
24	5.717	4.319	3.721	3.379	3.155	2.995	2.874	2.779	2.640	2.541	2.269	2.080	2.010	1.935	0.975
24	7.823	5.614	4.718	4.218	3.895	3.667	3.496	3.363	3.168	3.032	2.659	2.403	2.310	2.211	0.99
24	14.03	9.340	7.554	6.589	5.977	5.551	5.235	4.991	4.638	4.393	3.735	3.295	3.136	2.969	0.999
30	4.171	3.316	2.922	2.690	2.534	2.421	2.334	2.266	2.165	2.092	1.887	1.740	1.683	1.622	0.95
30	5.568	4.182	3.589	3.250	3.026	2.867	2.746	2.651	2.511	2.412	2.136	1.940	1.866	1.787	0.975
30	7.562	5.390	4.510	4.018	3.699	3.473	3.305	3.173	2.979	2.843	2.469	2.208	2.111	2.006	0.99
30	13.29	8.773	7.054	6.125	5.534	5.122	4.817	4.582	4.239	4.001	3.357	2.920	2.760	2.589	0.999
40	4.085	3.232	2.839	2.606	2.449	2.336	2.249	2.180	2.077	2.003	1.793	1.637	1.577	1.509	0.95
40	5.424	4.051	3.463	3.126	2.904	2.744	2.624	2.529	2.388	2.288	2.007	1.803	1.724	1.637	0.975
40	7.314	5.178	4.313	3.828	3.514	3.291	3.124	2.993	2.801	2.665	2.288	2.019	1.917	1.805	0.99
40	12.61	8.251	6.595	5.698	5.128	4.731	4.436	4.207	3.874	3.643	3.011	2.574	2.410	2.233	0.999
50	4.034	3.183	2.790	2.557	2.400	2.286	2.199	2.130	2.026	1.952	1.737	1.576	1.511	1.438	0.95
50	5.340	3.975	3.390	3.054	2.833	2.674	2.553	2.458	2.317	2.216	1.931	1.721	1.639	1.545	0.975
50	7.171	5.057	4.199	3.720	3.408	3.186	3.020	2.890	2.698	2.563	2.183	1.909	1.803	1.683	0.99
50	12.22	7.956	6.336	5.459	4.901	4.512	4.222	3.998	3.671	3.443	2.817	2.378	2.211	2.026	0.999
60	4.001	3.150	2.758	2.525	2.368	2.254	2.167	2.097	1.993	1.917	1.700	1.534	1.467	1.389	0.95
60	5.286	3.925	3.343	3.008	2.786	2.627	2.507	2.412	2.270	2.169	1.882	1.667	1.581	1.482	0.975
60	7.077	4.977	4.126	3.649	3.339	3.119	2.953	2.823	2.632	2.496	2.115	1.836	1.726	1.601	0.99
60	11.97	7.768	6.171	5.307	4.757	4.372	4.086	3.865	3.542	3.315	2.694	2.252	2.082	1.890	0.999
80	3.960	3.111	2.719	2.486	2.329	2.214	2.126	2.056	1.951	1.875	1.654	1.482	1.411	1.325	0.95
80	5.218	3.864	3.284	2.950	2.730	2.571	2.450	2.355	2.213	2.111	1.820	1.599	1.508	1.400	0.975
80	6.963	4.881	4.036	3.563	3.255	3.036	2.871	2.742	2.551	2.415	2.032	1.746	1.630	1.494	0.99
80	11.67	7.540	5.972	5.123	4.582	4.204	3.923	3.705	3.386	3.162	2.545	2.099	1.924	1.720	0.999
100	3.936	3.087	2.696	2.463	2.305	2.191	2.103	2.032	1.927	1.850	1.627	1.450	1.376	1.283	0.95
100	5.179	3.828	3.250	2.917	2.696	2.537	2.417	2.321	2.179	2.077	1.784	1.558	1.463	1.347	0.975
100	6.895	4.824	3.984	3.513	3.206	2.988	2.823	2.694	2.503	2.368	1.983	1.692	1.572	1.427	0.99
100	11.50	7.408	5.857	5.017	4.482	4.107	3.829	3.612	3.296	3.074	2.458	2.009	1.829	1.615	0.999
120	3.920	3.072	2.680	2.447	2.290	2.175	2.087	2.016	1.910	1.834	1.608	1.429	1.352	1.254	0.95
120	5.152	3.805	3.227	2.894	2.674	2.515	2.395	2.299	2.157	2.055	1.760	1.530	1.433	1.310	0.975
120	6.851	4.787	3.949	3.480	3.174	2.956	2.792	2.663	2.472	2.336	1.950	1.656	1.533	1.381	0.99
120	11.38	7.321	5.781	4.947	4.416	4.044	3.767	3.552	3.237	3.016	2.402	1.950	1.767	1.543	0.999
∞	3.841	2.996	2.605	2.372	2.214	2.099	2.010	1.938	1.831	1.752	1.517	1.318	1.221	1.000	0.95
∞	5.024	3.689	3.116	2.786	2.566	2.408	2.288	2.192	2.048	1.945	1.640	1.388	1.268	1.000	0.975
∞	6.635	4.605	3.782	3.319	3.017	2.802	2.639	2.511	2.321	2.185	1.791	1.473	1.325	1.000	0.99
∞	10.83	6.908	5.422	4.617	4.103	3.743	3.474	3.265	2.959	2.742	2.132	1.660	1.447	1.000	0.999