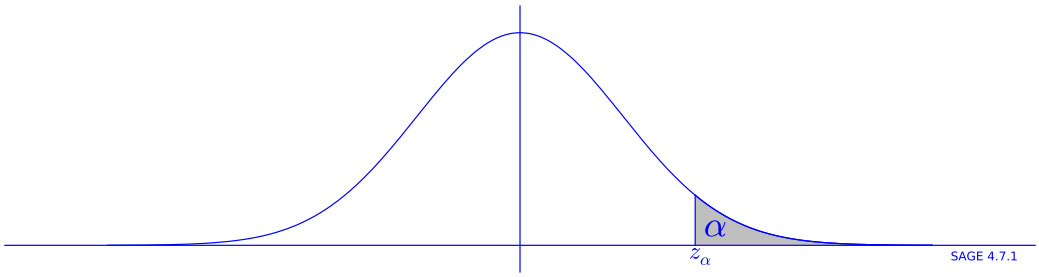
Normal distribution



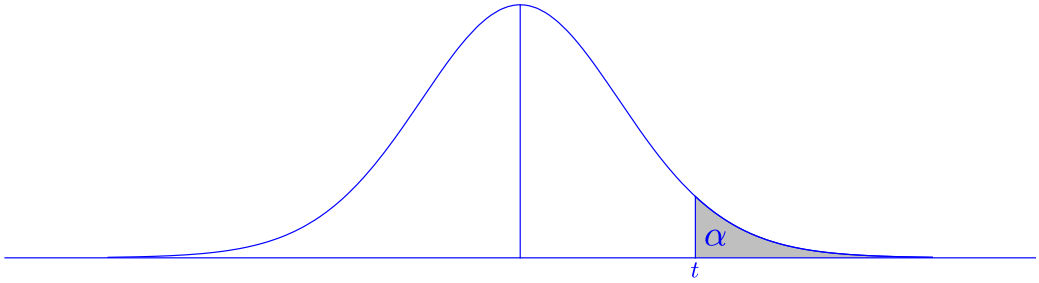
Examples: if Z follows a $\mathrm{N}(0,1)$ distribution,

1. $P(Z > 0.43) = 0.33360$;
2. $P(Z > 3.4) = 3.37 \cdot 10^{-4} = 0.000337\cdot$

z_α	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.0	0.50000	0.49601	0.49202	0.48803	0.48405	0.48006	0.47608	0.47210	0.46812	0.46414
0.1	0.46017	0.45620	0.45224	0.44828	0.44433	0.44038	0.43644	0.43251	0.42858	0.42465
0.2	0.42074	0.41683	0.41294	0.40905	0.40517	0.40129	0.39743	0.39358	0.38974	0.38591
0.3	0.38209	0.37828	0.37448	0.37070	0.36693	0.36317	0.35942	0.35569	0.35197	0.34827
0.4	0.34458	0.34090	0.33724	0.33360	0.32997	0.32636	0.32276	0.31918	0.31561	0.31207
0.5	0.30854	0.30503	0.30153	0.29806	0.29460	0.29116	0.28774	0.28434	0.28096	0.27760
0.6	0.27425	0.27093	0.26763	0.26435	0.26109	0.25785	0.25463	0.25143	0.24825	0.24510
0.7	0.24196	0.23885	0.23576	0.23270	0.22965	0.22663	0.22363	0.22065	0.21770	0.21476
0.8	0.21186	0.20897	0.20611	0.20327	0.20045	0.19766	0.19489	0.19215	0.18943	0.18673
0.9	0.18406	0.18141	0.17879	0.17619	0.17361	0.17106	0.16853	0.16602	0.16354	0.16109
1.0	0.15866	0.15625	0.15386	0.15151	0.14917	0.14686	0.14457	0.14231	0.14007	0.13786
1.1	0.13567	0.13350	0.13136	0.12924	0.12714	0.12507	0.12302	0.12100	0.11900	0.11702
1.2	0.11507	0.11314	0.11123	0.10935	0.10749	0.10565	0.10383	0.10204	0.10027	0.09853
1.3	0.09680	0.09510	0.09342	0.09176	0.09012	0.08851	0.08691	0.08534	0.08379	0.08226
1.4	0.08076	0.07927	0.07780	0.07636	0.07493	0.07353	0.07215	0.07078	0.06944	0.06811
1.5	0.06681	0.06552	0.06426	0.06301	0.06178	0.06057	0.05938	0.05821	0.05705	0.05592
1.6	0.05480	0.05370	0.05262	0.05155	0.05050	0.04947	0.04846	0.04746	0.04648	0.04551
1.7	0.04457	0.04363	0.04272	0.04182	0.04093	0.04006	0.03920	0.03836	0.03754	0.03673
1.8	0.03593	0.03515	0.03438	0.03362	0.03288	0.03216	0.03144	0.03074	0.03005	0.02938
1.9	0.02872	0.02807	0.02743	0.02680	0.02619	0.02559	0.02500	0.02442	0.02385	0.02330
2.0	0.02275	0.02222	0.02169	0.02118	0.02068	0.02018	0.01970	0.01923	0.01876	0.01831
2.1	0.01786	0.01743	0.01700	0.01659	0.01618	0.01578	0.01539	0.01500	0.01463	0.01426
2.2	0.01390	0.01355	0.01321	0.01287	0.01255	0.01222	0.01191	0.01160	0.01130	0.01101
2.3	0.01072	0.01044	0.01017	0.00990	0.00964	0.00939	0.00914	0.00889	0.00866	0.00842
2.4	0.00820	0.00798	0.00776	0.00755	0.00734	0.00714	0.00695	0.00676	0.00657	0.00639
2.5	0.00621	0.00604	0.00587	0.00570	0.00554	0.00539	0.00523	0.00508	0.00494	0.00480
2.6	0.00466	0.00453	0.00440	0.00427	0.00415	0.00402	0.00391	0.00379	0.00368	0.00357
2.7	0.00347	0.00336	0.00326	0.00317	0.00307	0.00298	0.00289	0.00280	0.00272	0.00264
2.8	0.00256	0.00248	0.00240	0.00233	0.00226	0.00219	0.00212	0.00205	0.00199	0.00193
2.9	0.00187	0.00181	0.00175	0.00169	0.00164	0.00159	0.00154	0.00149	0.00144	0.00139

z_α	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
3	1.35E-03	9.68E-04	6.87E-04	4.83E-04	3.37E-04	2.33E-04	1.59E-04	1.08E-04	7.23E-05	4.81E-05
4	3.17E-05	2.07E-05	1.33E-05	8.54E-06	5.41E-06	3.40E-06	2.11E-06	1.30E-06	7.93E-07	4.79E-07

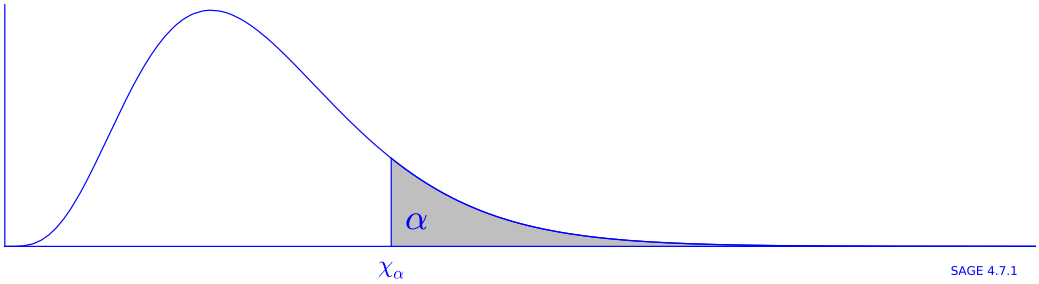
Student's *t*-distribution



Example: for n =25 and α =0.05, $t_{0.05}(25)$= 1.708, means $P(T>1.708)$ =0.05.

	α											
n	0.25	0.2	0.15	0.1	0.05	0.025	0.01	0.008	0.005	0.004	0.0025	0.0017
1	1.000	1.376	1.963	3.078	6.314	12.71	31.82	39.78	63.66	79.57	127.3	187.2
2	0.816	1.061	1.386	1.886	2.920	4.303	6.965	7.811	9.925	11.11	14.09	17.11
3	0.765	0.978	1.250	1.638	2.353	3.182	4.541	4.930	5.841	6.322	7.453	8.517
4	0.741	0.941	1.190	1.533	2.132	2.776	3.747	4.010	4.604	4.908	5.598	6.221
5	0.727	0.920	1.156	1.476	2.015	2.571	3.365	3.573	4.032	4.262	4.773	5.224
6	0.718	0.906	1.134	1.440	1.943	2.447	3.143	3.320	3.707	3.898	4.317	4.679
7	0.711	0.896	1.119	1.415	1.895	2.365	2.998	3.157	3.499	3.667	4.029	4.339
8	0.706	0.889	1.108	1.397	1.860	2.306	2.896	3.043	3.355	3.507	3.833	4.108
9	0.703	0.883	1.100	1.383	1.833	2.262	2.821	2.958	3.250	3.390	3.690	3.941
10	0.700	0.879	1.093	1.372	1.812	2.228	2.764	2.894	3.169	3.301	3.581	3.815
11	0.697	0.876	1.088	1.363	1.796	2.201	2.718	2.843	3.106	3.231	3.497	3.717
12	0.695	0.873	1.083	1.356	1.782	2.179	2.681	2.801	3.055	3.175	3.428	3.638
13	0.694	0.870	1.079	1.350	1.771	2.160	2.650	2.767	3.012	3.128	3.372	3.573
14	0.692	0.868	1.076	1.345	1.761	2.145	2.624	2.739	2.977	3.089	3.326	3.520
15	0.691	0.866	1.074	1.341	1.753	2.131	2.602	2.714	2.947	3.056	3.286	3.474
16	0.690	0.865	1.071	1.337	1.746	2.120	2.583	2.693	2.921	3.028	3.252	3.435
17	0.689	0.863	1.069	1.333	1.740	2.110	2.567	2.675	2.898	3.003	3.222	3.401
18	0.688	0.862	1.067	1.330	1.734	2.101	2.552	2.658	2.878	2.982	3.197	3.371
19	0.688	0.861	1.066	1.328	1.729	2.093	2.539	2.644	2.861	2.962	3.174	3.345
20	0.687	0.860	1.064	1.325	1.725	2.086	2.528	2.631	2.845	2.945	3.153	3.322
21	0.686	0.859	1.063	1.323	1.721	2.080	2.518	2.620	2.831	2.930	3.135	3.301
22	0.686	0.858	1.061	1.321	1.717	2.074	2.508	2.610	2.819	2.916	3.119	3.283
23	0.685	0.858	1.060	1.319	1.714	2.069	2.500	2.600	2.807	2.904	3.104	3.266
24	0.685	0.857	1.059	1.318	1.711	2.064	2.492	2.592	2.797	2.892	3.091	3.250
25	0.684	0.856	1.058	1.316	1.708	2.060	2.485	2.584	2.787	2.882	3.078	3.236
26	0.684	0.856	1.058	1.315	1.706	2.056	2.479	2.577	2.779	2.873	3.067	3.223
27	0.684	0.855	1.057	1.314	1.703	2.052	2.473	2.570	2.771	2.864	3.057	3.212
28	0.683	0.855	1.056	1.313	1.701	2.048	2.467	2.564	2.763	2.856	3.047	3.201
29	0.683	0.854	1.055	1.311	1.699	2.045	2.462	2.558	2.756	2.848	3.038	3.190
30	0.683	0.854	1.055	1.310	1.697	2.042	2.457	2.553	2.750	2.841	3.030	3.181
35	0.682	0.852	1.052	1.306	1.690	2.030	2.438	2.532	2.724	2.813	2.996	3.143
40	0.681	0.851	1.050	1.303	1.684	2.021	2.423	2.516	2.704	2.792	2.971	3.115
45	0.680	0.850	1.049	1.301	1.679	2.014	2.412	2.503	2.690	2.776	2.952	3.093
50	0.679	0.849	1.047	1.299	1.676	2.009	2.403	2.494	2.678	2.763	2.937	3.076
55	0.679	0.848	1.046	1.297	1.673	2.004	2.396	2.486	2.668	2.752	2.925	3.062
60	0.679	0.848	1.045	1.296	1.671	2.000	2.390	2.479	2.660	2.744	2.915	3.050
65	0.678	0.847	1.045	1.295	1.669	1.997	2.385	2.474	2.654	2.736	2.906	3.041
70	0.678	0.847	1.044	1.294	1.667	1.994	2.381	2.469	2.648	2.730	2.899	3.033
75	0.678	0.846	1.044	1.293	1.665	1.992	2.377	2.465	2.643	2.725	2.892	3.025
80	0.678	0.846	1.043	1.292	1.664	1.990	2.374	2.461	2.639	2.720	2.887	3.019
100	0.677	0.845	1.042	1.290	1.660	1.984	2.364	2.451	2.626	2.706	2.871	3.001
120	0.677	0.845	1.041	1.289	1.658	1.980	2.358	2.444	2.617	2.697	2.860	2.989
140	0.676	0.844	1.040	1.288	1.656	1.977	2.353	2.439	2.611	2.691	2.852	2.980

χ^2 distribution

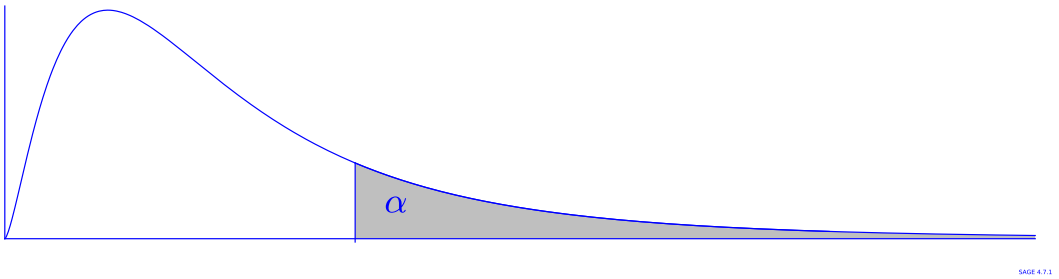


Example: for $n = 10$ and $\alpha = 0.05$, $\chi^2_{0.05}(10)$= 18.307, means that $P(\chi^2(10) > 18.307) = 0.05$·

	α														
n	0.9975	0.995	0.99	0.975	0.95	0.9	0.75	0.5	0.25	0.1	0.05	0.025	0.01	0.005	0.0025
1	9.82E-06	3.93E-05	1.57E-04	9.82E-04	3.93E-03	1.58E-02	0.1015	0.4549	1.323	2.706	3.841	5.024	6.635	7.879	9.141
2	5.01E-03	1.00E-02	2.01E-02	5.06E-02	0.1026	0.2107	0.5754	1.386	2.773	4.605	5.991	7.378	9.210	10.60	11.98
3	4.49E-02	7.17E-02	0.1148	0.2158	0.3518	0.5844	1.213	2.366	4.108	6.251	7.815	9.348	11.34	12.84	14.32
4	0.1449	0.2070	0.2971	0.4844	0.7107	1.064	1.923	3.357	5.385	7.779	9.488	11.14	13.28	14.86	16.42
5	0.3075	0.4117	0.5543	0.8312	1.145	1.610	2.675	4.351	6.626	9.236	11.07	12.83	15.09	16.75	18.39
6	0.5266	0.6757	0.8721	1.237	1.635	2.204	3.455	5.348	7.841	10.64	12.59	14.45	16.81	18.55	20.25
7	0.7945	0.9893	1.239	1.690	2.167	2.833	4.255	6.346	9.037	12.02	14.07	16.01	18.48	20.28	22.04
8	1.104	1.344	1.646	2.180	2.733	3.490	5.071	7.344	10.22	13.36	15.51	17.53	20.09	21.95	23.77
9	1.450	1.735	2.088	2.700	3.325	4.168	5.899	8.343	11.39	14.68	16.92	19.02	21.67	23.59	25.46
10	1.827	2.156	2.558	3.247	3.940	4.865	6.737	9.342	12.55	15.99	18.31	20.48	23.21	25.19	27.11
11	2.232	2.603	3.053	3.816	4.575	5.578	7.584	10.341	13.70	17.28	19.68	21.92	24.72	26.76	28.73
12	2.661	3.074	3.571	4.404	5.226	6.304	8.438	11.340	14.85	18.55	21.03	23.34	26.22	28.30	30.32
13	3.112	3.565	4.107	5.009	5.892	7.042	9.299	12.340	15.98	19.81	22.36	24.74	27.69	29.82	31.88
14	3.582	4.075	4.660	5.629	6.571	7.790	10.17	13.34	17.12	21.06	23.68	26.12	29.14	31.32	33.43
15	4.070	4.601	5.229	6.262	7.261	8.547	11.04	14.34	18.25	22.31	25.00	27.49	30.58	32.80	34.95
16	4.573	5.142	5.812	6.908	7.962	9.312	11.91	15.34	19.37	23.54	26.30	28.85	32.00	34.27	36.46
17	5.092	5.697	6.408	7.564	8.672	10.09	12.79	16.34	20.49	24.77	27.59	30.19	33.41	35.72	37.95
18	5.623	6.265	7.015	8.231	9.390	10.86	13.68	17.34	21.60	25.99	28.87	31.53	34.81	37.16	39.42
19	6.167	6.844	7.633	8.907	10.12	11.65	14.56	18.34	22.72	27.20	30.14	32.85	36.19	38.58	40.88
20	6.723	7.434	8.260	9.591	10.85	12.44	15.45	19.34	23.83	28.41	31.41	34.17	37.57	40.00	42.34
21	7.289	8.034	8.897	10.28	11.59	13.24	16.34	20.34	24.93	29.62	32.67	35.48	38.93	41.40	43.78
22	7.865	8.643	9.542	10.98	12.34	14.04	17.24	21.34	26.04	30.81	33.92	36.78	40.29	42.80	45.20
23	8.450	9.260	10.20	11.69	13.09	14.85	18.14	22.34	27.14	32.01	35.17	38.08	41.64	44.18	46.62
24	9.044	9.886	10.86	12.40	13.85	15.66	19.04	23.34	28.24	33.20	36.42	39.36	42.98	45.56	48.03
25	9.646	10.52	11.52	13.12	14.61	16.47	19.94	24.34	29.34	34.38	37.65	40.65	44.31	46.93	49.44
26	10.26	11.16	12.20	13.84	15.38	17.29	20.84	25.34	30.43	35.56	38.89	41.92	45.64	48.29	50.83
27	10.87	11.81	12.88	14.57	16.15	18.11	21.75	26.34	31.53	36.74	40.11	43.19	46.96	49.64	52.22
28	11.50	12.46	13.56	15.31	16.93	18.94	22.66	27.34	32.62	37.92	41.34	44.46	48.28	50.99	53.59
29	12.13	13.12	14.26	16.05	17.71	19.77	23.57	28.34	33.71	39.09	42.56	45.72	49.59	52.34	54.97
30	12.76	13.79	14.95	16.79	18.49	20.60	24.48	29.34	34.80	40.26	43.77	46.98	50.89	53.67	56.33
35	16.03	17.19	18.51	20.57	22.47	24.80	29.05	34.34	40.22	46.06	49.80	53.20	57.34	60.27	63.08
40	19.42	20.71	22.16	24.43	26.51	29.05	33.66	39.34	45.62	51.81	55.76	59.34	63.69	66.77	69.70
45	22.90	24.31	25.90	28.37	30.61	33.35	38.29	44.34	50.98	57.51	61.66	65.41	69.96	73.17	76.22
50	26.46	27.99	29.71	32.36	34.76	37.69	42.94	49.33	56.33	63.17	67.50	71.42	76.15	79.49	82.66
55	30.10	31.73	33.57	36.40	38.96	42.06	47.61	54.33	61.66	68.80	73.31	77.38	82.29	85.75	89.03
60	33.79	35.53	37.48	40.48	43.19	46.46	52.29	59.33	66.98	74.40	79.08	83.30	88.38	91.95	95.34
65	37.54	39.38	41.44	44.60	47.45	50.88	56.99	64.33	72.28	79.97	84.82	89.18	94.42	98.11	101.6
70	41.33	43.28	45.44	48.76	51.74	55.33	61.70	69.33	77.58	85.53	90.53	95.02	100.4	104.2	107.8
75	45.17	47.21	49.48	52.94	56.05	59.79	66.42	74.33	82.86	91.06	96.22	100.8	106.4	110.3	114.0
80	49.04	51.17	53.54	57.15	60.39	64.28	71.14	79.33	88.13	96.58	101.9	106.6	112.3	116.3	120.1
90	56.89	59.20	61.75	65.65	69.13	73.29	80.62	89.33	98.65	107.6	113.1	118.1	124.1	128.3	132.3
100	64.86	67.33	70.06	74.22	77.93	82.36	90.13	99.33	109.1	118.5	124.3	129.6	135.8	140.2	144.3
110	72.92	75.55	78.46	82.87	86.79	91.47	99.67	109.3	119.6	129.4	135.5	140.9	147.4	151.9	156.2
120	81.07	83.85	86.92	91.57	95.70	100.6	109.2	119.3	130.1	140.2	146.6	152.2	159.0	163.6	168.1
150	105.9	109.1	112.7	118.0	122.7	128.3	138.0	149.3	161.3	172.6	179.6	185.8	193.2	198.4	203.2
200	148.4	152.2	156.4	162.7	168.3	174.8	186.2	199.3	213.1	226.0	234.0	241.1	249.4	255.3	260.7

F distribution

$\alpha = 0.01$



Example: for $n_1 = 5$, $n_2 = 10$ and $\alpha = 0.01$, $F_{0.01}(5,10) = 5.636$, means that $P(F(5,10) > 5.636) = 0.01$

	n_1															
n_2	1	2	3	4	5	6	7	8	9	10	12	15	16	18	20	24
1	4052	5000	5403	5625	5764	5859	5928	5981	6022	6056	6106	6157	6170	6192	6209	6235
2	98.50	99.00	99.17	99.25	99.30	99.33	99.36	99.37	99.39	99.40	99.42	99.43	99.44	99.44	99.45	99.46
3	34.12	30.82	29.46	28.71	28.24	27.91	27.67	27.49	27.35	27.23	27.05	26.87	26.83	26.75	26.69	26.60
4	21.20	18.00	16.69	15.98	15.52	15.21	14.98	14.80	14.66	14.55	14.37	14.20	14.15	14.08	14.02	13.93
5	16.26	13.27	12.06	11.39	10.97	10.67	10.46	10.29	10.16	10.051	9.888	9.722	9.680	9.610	9.553	9.466
6	13.75	10.92	9.780	9.148	8.746	8.466	8.260	8.102	7.976	7.874	7.718	7.559	7.519	7.451	7.396	7.313
7	12.25	9.547	8.451	7.847	7.460	7.191	6.993	6.840	6.719	6.620	6.469	6.314	6.275	6.209	6.155	6.074
8	11.26	8.649	7.591	7.006	6.632	6.371	6.178	6.029	5.911	5.814	5.667	5.515	5.477	5.412	5.359	5.279
9	10.56	8.022	6.992	6.422	6.057	5.802	5.613	5.467	5.351	5.257	5.111	4.962	4.924	4.860	4.808	4.729
10	10.04	7.559	6.552	5.994	5.636	5.386	5.200	5.057	4.942	4.849	4.706	4.558	4.520	4.457	4.405	4.327
11	9.646	7.206	6.217	5.668	5.316	5.069	4.886	4.744	4.632	4.539	4.397	4.251	4.213	4.150	4.099	4.021
12	9.330	6.927	5.953	5.412	5.064	4.821	4.640	4.499	4.388	4.296	4.155	4.010	3.972	3.909	3.858	3.780
13	9.074	6.701	5.739	5.205	4.862	4.620	4.441	4.302	4.191	4.100	3.960	3.815	3.778	3.716	3.665	3.587
14	8.862	6.515	5.564	5.035	4.695	4.456	4.278	4.140	4.030	3.939	3.800	3.656	3.619	3.556	3.505	3.427
15	8.683	6.359	5.417	4.893	4.556	4.318	4.142	4.004	3.895	3.805	3.666	3.522	3.485	3.423	3.372	3.294
16	8.531	6.226	5.292	4.773	4.437	4.202	4.026	3.890	3.780	3.691	3.553	3.409	3.372	3.310	3.259	3.181
17	8.400	6.112	5.185	4.669	4.336	4.102	3.927	3.791	3.682	3.593	3.455	3.312	3.275	3.212	3.162	3.084
18	8.285	6.013	5.092	4.579	4.248	4.015	3.841	3.705	3.597	3.508	3.371	3.227	3.190	3.128	3.077	2.999
19	8.185	5.926	5.010	4.500	4.171	3.939	3.765	3.631	3.523	3.434	3.297	3.153	3.116	3.054	3.003	2.925
20	8.096	5.849	4.938	4.431	4.103	3.871	3.699	3.564	3.457	3.368	3.231	3.088	3.051	2.989	2.938	2.859
21	8.017	5.780	4.874	4.369	4.042	3.812	3.640	3.506	3.398	3.310	3.173	3.030	2.993	2.931	2.880	2.801
22	7.945	5.719	4.817	4.313	3.988	3.758	3.587	3.453	3.346	3.258	3.121	2.978	2.941	2.879	2.827	2.749
23	7.881	5.664	4.765	4.264	3.939	3.710	3.539	3.406	3.299	3.211	3.074	2.931	2.894	2.832	2.781	2.702
24	7.823	5.614	4.718	4.218	3.895	3.667	3.496	3.363	3.256	3.168	3.032	2.889	2.852	2.789	2.738	2.659
25	7.770	5.568	4.675	4.177	3.855	3.627	3.457	3.324	3.217	3.129	2.993	2.850	2.813	2.751	2.699	2.620
26	7.721	5.526	4.637	4.140	3.818	3.591	3.421	3.288	3.182	3.094	2.958	2.815	2.778	2.715	2.664	2.585
27	7.677	5.488	4.601	4.106	3.785	3.558	3.388	3.256	3.149	3.062	2.926	2.783	2.746	2.683	2.632	2.552
28	7.636	5.453	4.568	4.074	3.754	3.528	3.358	3.226	3.120	3.032	2.896	2.753	2.716	2.653	2.602	2.522
29	7.598	5.420	4.538	4.045	3.725	3.499	3.330	3.198	3.092	3.005	2.868	2.726	2.689	2.626	2.574	2.495
30	7.562	5.390	4.510	4.018	3.699	3.473	3.304	3.173	3.067	2.979	2.843	2.700	2.663	2.600	2.549	2.469
35	7.419	5.268	4.396	3.908	3.592	3.368	3.200	3.069	2.963	2.876	2.740	2.597	2.560	2.497	2.445	2.364
40	7.314	5.179	4.313	3.828	3.514	3.291	3.124	2.993	2.888	2.801	2.665	2.522	2.484	2.421	2.369	2.288
45	7.234	5.110	4.249	3.767	3.454	3.232	3.066	2.935	2.830	2.743	2.608	2.464	2.427	2.363	2.311	2.230
50	7.171	5.057	4.199	3.720	3.408	3.186	3.020	2.890	2.785	2.698	2.562	2.419	2.382	2.318	2.265	2.183
60	7.077	4.977	4.126	3.649	3.339	3.119	2.953	2.823	2.718	2.632	2.496	2.352	2.315	2.251	2.198	2.115
70	7.011	4.922	4.074	3.600	3.291	3.071	2.906	2.777	2.672	2.585	2.450	2.306	2.268	2.204	2.150	2.067
80	6.963	4.881	4.036	3.563	3.255	3.036	2.871	2.742	2.637	2.551	2.415	2.271	2.233	2.169	2.115	2.032
100	6.895	4.824	3.984	3.513	3.206	2.988	2.823	2.694	2.590	2.503	2.368	2.223	2.185	2.120	2.067	1.983
125	6.842	4.779	3.942	3.473	3.167	2.950	2.786	2.657	2.552	2.466	2.330	2.185	2.147	2.082	2.028	1.944
150	6.807	4.749	3.915	3.447	3.142	2.924	2.761	2.632	2.528	2.441	2.305	2.160	2.122	2.057	2.003	1.918
175	6.782	4.729	3.895	3.428	3.123	2.907	2.743	2.614	2.510	2.424	2.288	2.143	2.105	2.039	1.985	1.899
200	6.763	4.713	3.881	3.414	3.110	2.893	2.730	2.601	2.497	2.411	2.275	2.129	2.091	2.026	1.971	1.886
300	6.720	4.677	3.848	3.382	3.079	2.862	2.699	2.571	2.467	2.380	2.244	2.099	2.061	1.995	1.940	1.854
400	6.699	4.659	3.831	3.366	3.063	2.847	2.684	2.556	2.452	2.365	2.229	2.084	2.045	1.979	1.925	1.838
500	6.686	4.648	3.821	3.357	3.054	2.838	2.675	2.547	2.443	2.356	2.220	2.075	2.036	1.970	1.915	1.829
750	6.669	4.634	3.808	3.344	3.042	2.826	2.663	2.535	2.431	2.345	2.208	2.063	2.024	1.958	1.903	1.816
1000	6.660	4.626	3.801	3.338	3.036	2.820	2.657	2.529	2.425	2.339	2.203	2.056	2.018	1.952	1.897	1.810

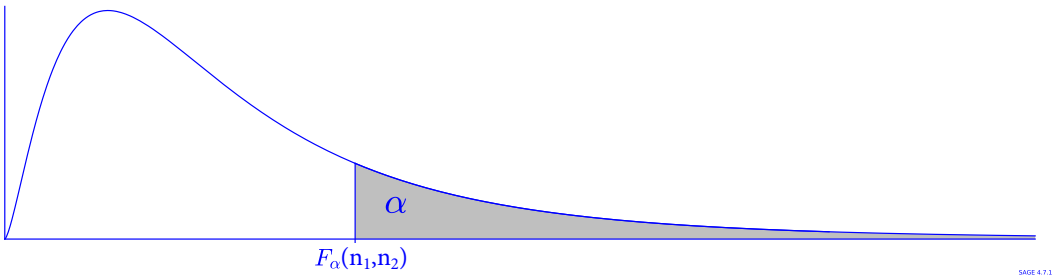
F distribution

$\alpha = 0.01$

n_2 \ n_1	25	30	35	40	45	50	60	70	80	90	100	150	200	300	500	1000
1	6240	6261	6276	6287	6296	6303	6313	6321	6326	6331	6334	6345	6350	6355	6360	6363
2	99.46	99.47	99.47	99.47	99.48	99.48	99.48	99.48	99.49	99.49	99.49	99.49	99.49	99.50	99.50	99.50
3	26.58	26.50	26.45	26.41	26.38	26.35	26.32	26.29	26.27	26.25	26.24	26.20	26.18	26.16	26.15	26.14
4	13.91	13.84	13.79	13.75	13.71	13.69	13.65	13.63	13.61	13.59	13.58	13.54	13.52	13.50	13.49	13.47
5	9.45	9.38	9.33	9.29	9.26	9.24	9.20	9.18	9.16	9.142	9.130	9.094	9.075	9.057	9.042	9.031
6	7.30	7.23	7.180	7.143	7.115	7.091	7.057	7.032	7.013	6.998	6.987	6.951	6.934	6.916	6.902	6.891
7	6.06	5.992	5.944	5.908	5.880	5.858	5.824	5.799	5.781	5.766	5.755	5.720	5.702	5.685	5.671	5.660
8	5.26	5.198	5.151	5.116	5.088	5.065	5.032	5.007	4.989	4.975	4.963	4.929	4.911	4.894	4.880	4.869
9	4.71	4.649	4.602	4.567	4.539	4.517	4.483	4.459	4.441	4.426	4.415	4.380	4.363	4.346	4.332	4.321
10	4.31	4.247	4.200	4.165	4.138	4.115	4.082	4.058	4.039	4.025	4.014	3.979	3.962	3.944	3.930	3.920
11	4.005	3.941	3.895	3.860	3.832	3.810	3.776	3.752	3.734	3.719	3.708	3.673	3.656	3.638	3.624	3.613
12	3.765	3.701	3.654	3.619	3.592	3.569	3.535	3.511	3.493	3.478	3.467	3.432	3.414	3.397	3.382	3.372
13	3.571	3.507	3.461	3.425	3.398	3.375	3.341	3.317	3.298	3.284	3.272	3.237	3.219	3.202	3.187	3.176
14	3.412	3.348	3.301	3.266	3.238	3.215	3.181	3.157	3.138	3.124	3.112	3.076	3.059	3.040	3.026	3.015
15	3.278	3.214	3.167	3.132	3.104	3.081	3.047	3.022	3.004	2.989	2.977	2.942	2.923	2.905	2.891	2.880
16	3.165	3.101	3.054	3.018	2.990	2.967	2.933	2.908	2.889	2.875	2.863	2.827	2.808	2.790	2.775	2.764
17	3.068	3.003	2.956	2.920	2.892	2.869	2.835	2.810	2.791	2.776	2.764	2.728	2.709	2.691	2.676	2.664
18	2.983	2.919	2.871	2.835	2.807	2.784	2.749	2.724	2.705	2.690	2.678	2.641	2.623	2.604	2.589	2.577
19	2.909	2.844	2.797	2.761	2.732	2.709	2.674	2.649	2.630	2.614	2.602	2.565	2.547	2.528	2.512	2.501
20	2.843	2.778	2.731	2.695	2.666	2.643	2.608	2.582	2.563	2.548	2.535	2.498	2.479	2.460	2.445	2.433
21	2.785	2.720	2.672	2.636	2.607	2.584	2.548	2.523	2.503	2.488	2.475	2.438	2.419	2.400	2.384	2.372
22	2.733	2.667	2.620	2.583	2.554	2.531	2.495	2.469	2.450	2.434	2.422	2.384	2.365	2.345	2.329	2.317
23	2.686	2.620	2.572	2.535	2.506	2.483	2.447	2.421	2.401	2.386	2.373	2.335	2.316	2.296	2.280	2.268
24	2.643	2.577	2.529	2.492	2.463	2.440	2.403	2.377	2.357	2.342	2.329	2.291	2.271	2.251	2.235	2.223
25	2.604	2.538	2.490	2.453	2.424	2.400	2.364	2.337	2.317	2.302	2.289	2.250	2.230	2.210	2.194	2.182
26	2.569	2.503	2.454	2.417	2.388	2.364	2.327	2.301	2.281	2.265	2.252	2.213	2.193	2.173	2.156	2.144
27	2.536	2.470	2.421	2.384	2.354	2.330	2.294	2.267	2.247	2.231	2.218	2.179	2.159	2.138	2.122	2.109
28	2.506	2.440	2.391	2.354	2.324	2.300	2.263	2.236	2.216	2.200	2.187	2.147	2.127	2.106	2.090	2.077
29	2.478	2.412	2.363	2.325	2.296	2.271	2.234	2.207	2.187	2.171	2.158	2.118	2.097	2.077	2.060	2.047
30	2.453	2.386	2.337	2.299	2.269	2.245	2.208	2.181	2.160	2.144	2.131	2.091	2.070	2.049	2.032	2.019
35	2.348	2.281	2.231	2.193	2.162	2.137	2.099	2.072	2.050	2.034	2.020	1.979	1.957	1.936	1.918	1.905
40	2.271	2.203	2.153	2.114	2.083	2.058	2.019	1.991	1.969	1.952	1.938	1.896	1.874	1.851	1.833	1.819
45	2.213	2.144	2.093	2.054	2.023	1.997	1.958	1.929	1.907	1.889	1.875	1.831	1.809	1.786	1.767	1.752
50	2.167	2.098	2.046	2.007	1.975	1.949	1.909	1.880	1.857	1.839	1.825	1.780	1.757	1.733	1.713	1.698
60	2.098	2.028	1.976	1.936	1.904	1.877	1.836	1.806	1.783	1.764	1.749	1.703	1.678	1.653	1.633	1.617
70	2.050	1.980	1.927	1.886	1.853	1.826	1.785	1.754	1.730	1.711	1.695	1.647	1.622	1.596	1.574	1.558
80	2.015	1.944	1.890	1.849	1.816	1.788	1.746	1.714	1.690	1.671	1.655	1.605	1.579	1.552	1.530	1.512
100	1.965	1.893	1.839	1.797	1.763	1.735	1.692	1.659	1.634	1.614	1.598	1.546	1.518	1.490	1.466	1.447
125	1.926	1.853	1.799	1.756	1.721	1.693	1.648	1.615	1.589	1.569	1.551	1.498	1.469	1.438	1.412	1.392
150	1.900	1.827	1.772	1.729	1.694	1.665	1.620	1.586	1.559	1.538	1.520	1.465	1.435	1.403	1.376	1.354
175	1.882	1.808	1.753	1.709	1.674	1.645	1.599	1.564	1.538	1.516	1.498	1.441	1.410	1.377	1.349	1.326
200	1.868	1.794	1.738	1.694	1.659	1.629	1.583	1.548	1.521	1.499	1.481	1.423	1.391	1.357	1.328	1.304
300	1.836	1.761	1.705	1.660	1.624	1.594	1.547	1.511	1.483	1.460	1.441	1.380	1.346	1.309	1.276	1.249
400	1.820	1.745	1.688	1.643	1.607	1.576	1.528	1.492	1.463	1.440	1.421	1.358	1.322	1.284	1.249	1.220
500	1.810	1.735	1.678	1.633	1.596	1.566	1.517	1.481	1.452	1.428	1.408	1.344	1.308	1.268	1.232	1.201
750	1.798	1.722	1.665	1.620	1.582	1.552	1.503	1.465	1.436	1.412	1.392	1.326	1.288	1.246	1.207	1.173
1000	1.791	1.716	1.658	1.613	1.576	1.544	1.495	1.458	1.428	1.404	1.383	1.317	1.278	1.235	1.195	1.159

F distribution

$\alpha = 0{,}025$



Example: for $n_1 = 5$, $n_2 = 10$ and $\alpha = 0.025$, $F_{0.025}(5,10) = 6.619$, means that $P(F(5,10) > 6.619) = 0.025$

	n_1															
n_2	1	2	3	4	5	6	7	8	9	10	12	15	16	18	20	24
1	647,8	799,5	864,2	899,6	921,8	937,1	948,2	956,7	963,3	968,6	976,7	984,9	986,9	990,3	993,1	997,2
2	38,51	39,00	39,17	39,25	39,30	39,33	39,36	39,37	39,39	39,40	39,41	39,43	39,44	39,44	39,45	39,46
3	17,44	16,04	15,44	15,10	14,88	14,73	14,62	14,54	14,47	14,42	14,34	14,25	14,23	14,20	14,17	14,12
4	12,22	10,65	9,979	9,605	9,364	9,197	9,074	8,980	8,905	8,844	8,751	8,657	8,633	8,592	8,560	8,511
5	10,01	8,434	7,764	7,388	7,146	6,978	6,853	6,757	6,681	6,619	6,525	6,428	6,403	6,362	6,329	6,278
6	8,813	7,260	6,599	6,227	5,988	5,820	5,695	5,600	5,523	5,461	5,366	5,269	5,244	5,202	5,168	5,117
7	8,073	6,542	5,890	5,523	5,285	5,119	4,995	4,899	4,823	4,761	4,666	4,568	4,543	4,501	4,467	4,415
8	7,571	6,059	5,416	5,053	4,817	4,652	4,529	4,433	4,357	4,295	4,200	4,101	4,076	4,034	3,999	3,947
9	7,209	5,715	5,078	4,718	4,484	4,320	4,197	4,102	4,026	3,964	3,868	3,769	3,744	3,701	3,667	3,614
10	6,937	5,456	4,826	4,468	4,236	4,072	3,950	3,855	3,779	3,717	3,621	3,522	3,496	3,453	3,419	3,365
11	6,724	5,256	4,630	4,275	4,044	3,881	3,759	3,664	3,588	3,526	3,430	3,330	3,304	3,261	3,226	3,173
12	6,554	5,096	4,474	4,121	3,891	3,728	3,607	3,512	3,436	3,374	3,277	3,177	3,152	3,108	3,073	3,019
13	6,414	4,965	4,347	3,996	3,767	3,604	3,483	3,388	3,312	3,250	3,153	3,053	3,027	2,983	2,948	2,893
14	6,298	4,857	4,242	3,892	3,663	3,501	3,380	3,285	3,209	3,147	3,050	2,949	2,923	2,879	2,844	2,789
15	6,200	4,765	4,153	3,804	3,576	3,415	3,293	3,199	3,123	3,060	2,963	2,862	2,836	2,792	2,756	2,701
16	6,115	4,687	4,077	3,729	3,502	3,341	3,219	3,125	3,049	2,986	2,889	2,788	2,761	2,717	2,681	2,625
17	6,042	4,619	4,011	3,665	3,438	3,277	3,156	3,061	2,985	2,922	2,825	2,723	2,697	2,652	2,616	2,560
18	5,978	4,560	3,954	3,608	3,382	3,221	3,100	3,005	2,929	2,866	2,769	2,667	2,640	2,596	2,559	2,503
19	5,922	4,508	3,903	3,559	3,333	3,172	3,051	2,956	2,880	2,817	2,720	2,617	2,591	2,546	2,509	2,452
20	5,871	4,461	3,859	3,515	3,289	3,128	3,007	2,913	2,837	2,774	2,676	2,573	2,547	2,501	2,464	2,408
21	5,827	4,420	3,819	3,475	3,250	3,090	2,969	2,874	2,798	2,735	2,637	2,534	2,507	2,462	2,425	2,368
22	5,786	4,383	3,783	3,440	3,215	3,055	2,934	2,839	2,763	2,700	2,602	2,498	2,472	2,426	2,389	2,331
23	5,750	4,349	3,750	3,408	3,183	3,023	2,902	2,808	2,731	2,668	2,570	2,466	2,440	2,394	2,357	2,299
24	5,717	4,319	3,721	3,379	3,155	2,995	2,874	2,779	2,703	2,640	2,541	2,437	2,411	2,365	2,327	2,269
25	5,686	4,291	3,694	3,353	3,129	2,969	2,848	2,753	2,677	2,613	2,515	2,411	2,384	2,338	2,300	2,242
26	5,659	4,265	3,670	3,329	3,105	2,945	2,824	2,729	2,653	2,590	2,491	2,387	2,360	2,314	2,276	2,217
27	5,633	4,242	3,647	3,307	3,083	2,923	2,802	2,707	2,631	2,568	2,469	2,364	2,337	2,291	2,253	2,195
28	5,610	4,221	3,626	3,286	3,063	2,903	2,782	2,687	2,611	2,547	2,448	2,344	2,317	2,270	2,232	2,174
29	5,588	4,201	3,607	3,267	3,044	2,884	2,763	2,669	2,592	2,529	2,430	2,325	2,298	2,251	2,213	2,154
30	5,568	4,182	3,589	3,250	3,026	2,867	2,746	2,651	2,575	2,511	2,412	2,307	2,280	2,233	2,195	2,136
35	5,485	4,106	3,517	3,179	2,956	2,796	2,676	2,581	2,504	2,440	2,341	2,235	2,207	2,160	2,122	2,062
40	5,424	4,051	3,463	3,126	2,904	2,744	2,624	2,529	2,452	2,388	2,288	2,182	2,154	2,107	2,068	2,007
45	5,377	4,009	3,422	3,086	2,864	2,705	2,584	2,489	2,412	2,348	2,248	2,141	2,113	2,066	2,026	1,965
50	5,340	3,975	3,390	3,054	2,833	2,674	2,553	2,458	2,381	2,317	2,216	2,109	2,081	2,033	1,993	1,931
60	5,286	3,925	3,343	3,008	2,786	2,627	2,507	2,412	2,334	2,270	2,169	2,061	2,033	1,985	1,944	1,882
70	5,247	3,890	3,309	2,975	2,754	2,595	2,474	2,379	2,302	2,237	2,136	2,028	1,999	1,950	1,910	1,847
80	5,218	3,864	3,284	2,950	2,730	2,571	2,450	2,355	2,277	2,213	2,111	2,003	1,974	1,925	1,884	1,820
100	5,179	3,828	3,250	2,917	2,696	2,537	2,417	2,321	2,244	2,179	2,077	1,968	1,939	1,890	1,849	1,784
125	5,147	3,800	3,222	2,890	2,670	2,511	2,390	2,295	2,217	2,153	2,050	1,940	1,911	1,862	1,820	1,755
150	5,126	3,781	3,204	2,872	2,652	2,494	2,373	2,278	2,200	2,135	2,032	1,922	1,893	1,843	1,801	1,736
175	5,111	3,768	3,192	2,860	2,640	2,481	2,361	2,265	2,187	2,122	2,020	1,909	1,880	1,830	1,788	1,722
200	5,100	3,758	3,182	2,850	2,630	2,472	2,351	2,256	2,178	2,113	2,010	1,900	1,870	1,820	1,778	1,712
300	5,075	3,735	3,160	2,829	2,609	2,451	2,330	2,234	2,156	2,091	1,988	1,877	1,848	1,797	1,755	1,688
400	5,062	3,723	3,149	2,818	2,598	2,440	2,319	2,224	2,146	2,080	1,977	1,866	1,836	1,786	1,743	1,676
500	5,054	3,716	3,142	2,811	2,592	2,434	2,313	2,217	2,139	2,074	1,971	1,859	1,830	1,779	1,736	1,669
750	5,044	3,707	3,134	2,803	2,583	2,425	2,304	2,209	2,131	2,065	1,962	1,850	1,821	1,770	1,727	1,659
1000	5,039	3,703	3,129	2,799	2,579	2,421	2,300	2,204	2,126	2,061	1,958	1,846	1,816	1,765	1,722	1,654

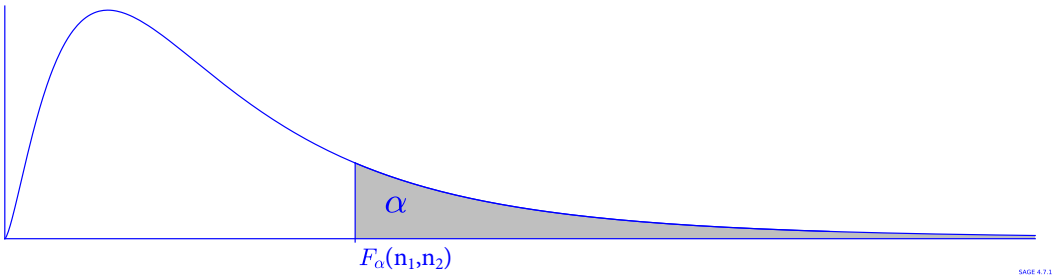
F distribution

$\alpha = 0{,}025$

	n_1															
n_2	25	30	35	40	45	50	60	70	80	90	100	150	200	300	500	1000
1	998,1	1001	1004	1006	1007	1008	1010	1011	1012	1013	1013	1015	1016	1017	1017	1018
2	39,46	39,46	39,47	39,47	39,48	39,48	39,48	39,48	39,49	39,49	39,49	39,49	39,49	39,49	39,50	39,50
3	14,12	14,08	14,06	14,04	14,02	14,01	13,99	13,98	13,97	13,96	13,96	13,94	13,93	13,92	13,91	13,91
4	8,501	8,461	8,433	8,411	8,394	8,381	8,360	8,346	8,335	8,326	8,319	8,299	8,289	8,278	8,270	8,264
5	6,268	6,227	6,197	6,175	6,158	6,144	6,123	6,107	6,096	6,087	6,080	6,059	6,048	6,037	6,028	6,022
6	5,107	5,065	5,035	5,012	4,995	4,980	4,959	4,943	4,932	4,923	4,915	4,893	4,882	4,871	4,862	4,856
7	4,405	4,362	4,332	4,309	4,291	4,276	4,254	4,239	4,227	4,218	4,210	4,188	4,176	4,165	4,156	4,149
8	3,937	3,894	3,863	3,840	3,821	3,807	3,784	3,768	3,756	3,747	3,739	3,716	3,705	3,693	3,684	3,677
9	3,604	3,560	3,529	3,505	3,487	3,472	3,449	3,433	3,421	3,411	3,403	3,380	3,368	3,357	3,347	3,340
10	3,355	3,311	3,279	3,255	3,237	3,221	3,198	3,182	3,169	3,160	3,152	3,128	3,116	3,104	3,094	3,087
11	3,162	3,118	3,086	3,061	3,042	3,027	3,004	2,987	2,974	2,964	2,956	2,932	2,920	2,908	2,898	2,890
12	3,008	2,963	2,931	2,906	2,887	2,871	2,848	2,831	2,818	2,808	2,800	2,775	2,763	2,750	2,740	2,733
13	2,882	2,837	2,805	2,780	2,760	2,744	2,720	2,703	2,690	2,680	2,671	2,647	2,634	2,621	2,611	2,603
14	2,778	2,732	2,699	2,674	2,654	2,638	2,614	2,597	2,583	2,573	2,565	2,539	2,526	2,513	2,503	2,495
15	2,689	2,644	2,610	2,585	2,565	2,549	2,524	2,506	2,493	2,482	2,474	2,448	2,435	2,422	2,411	2,403
16	2,614	2,568	2,534	2,509	2,488	2,472	2,447	2,429	2,415	2,405	2,396	2,370	2,357	2,343	2,333	2,324
17	2,548	2,502	2,468	2,442	2,422	2,405	2,380	2,362	2,348	2,337	2,329	2,302	2,289	2,275	2,264	2,256
18	2,491	2,445	2,410	2,384	2,364	2,347	2,321	2,303	2,289	2,278	2,269	2,242	2,229	2,215	2,204	2,195
19	2,441	2,394	2,359	2,333	2,312	2,295	2,270	2,251	2,237	2,226	2,217	2,190	2,176	2,162	2,150	2,142
20	2,396	2,349	2,314	2,287	2,266	2,249	2,223	2,205	2,190	2,179	2,170	2,142	2,128	2,114	2,103	2,094
21	2,356	2,308	2,273	2,246	2,225	2,208	2,182	2,163	2,148	2,137	2,128	2,100	2,086	2,072	2,060	2,051
22	2,320	2,272	2,237	2,210	2,188	2,171	2,145	2,125	2,111	2,099	2,090	2,062	2,047	2,033	2,021	2,012
23	2,287	2,239	2,204	2,176	2,155	2,137	2,111	2,091	2,077	2,065	2,056	2,027	2,013	1,998	1,986	1,977
24	2,257	2,209	2,173	2,146	2,124	2,107	2,080	2,060	2,045	2,034	2,024	1,995	1,981	1,966	1,954	1,945
25	2,230	2,182	2,146	2,118	2,096	2,079	2,052	2,032	2,017	2,005	1,996	1,966	1,952	1,936	1,924	1,915
26	2,205	2,157	2,120	2,093	2,071	2,053	2,026	2,006	1,991	1,979	1,969	1,940	1,925	1,909	1,897	1,888
27	2,183	2,133	2,097	2,069	2,047	2,029	2,002	1,982	1,966	1,954	1,945	1,915	1,900	1,884	1,872	1,862
28	2,161	2,112	2,076	2,048	2,025	2,007	1,980	1,959	1,944	1,932	1,922	1,892	1,877	1,861	1,848	1,839
29	2,142	2,092	2,056	2,028	2,005	1,987	1,959	1,939	1,923	1,911	1,901	1,871	1,855	1,840	1,827	1,817
30	2,124	2,074	2,037	2,009	1,986	1,968	1,940	1,920	1,904	1,892	1,882	1,851	1,835	1,819	1,806	1,797
35	2,049	1,999	1,961	1,932	1,909	1,890	1,861	1,840	1,824	1,811	1,801	1,769	1,753	1,736	1,722	1,712
40	1,994	1,943	1,905	1,875	1,852	1,832	1,803	1,781	1,764	1,751	1,741	1,708	1,691	1,673	1,659	1,648
45	1,952	1,900	1,861	1,831	1,807	1,788	1,757	1,735	1,718	1,705	1,694	1,660	1,642	1,624	1,609	1,598
50	1,919	1,866	1,827	1,796	1,772	1,752	1,721	1,698	1,681	1,667	1,656	1,621	1,603	1,584	1,569	1,557
60	1,869	1,815	1,775	1,744	1,719	1,699	1,667	1,643	1,625	1,611	1,599	1,563	1,543	1,524	1,507	1,495
70	1,833	1,779	1,739	1,707	1,681	1,660	1,628	1,604	1,585	1,570	1,558	1,520	1,500	1,480	1,463	1,449
80	1,807	1,752	1,711	1,679	1,653	1,632	1,599	1,574	1,555	1,540	1,527	1,488	1,467	1,446	1,428	1,414
100	1,770	1,715	1,673	1,640	1,614	1,592	1,558	1,532	1,512	1,496	1,483	1,442	1,420	1,397	1,378	1,363
125	1,741	1,685	1,642	1,609	1,582	1,559	1,524	1,498	1,478	1,461	1,448	1,405	1,381	1,357	1,336	1,320
150	1,722	1,665	1,622	1,588	1,561	1,538	1,502	1,475	1,454	1,437	1,423	1,379	1,355	1,329	1,307	1,290
175	1,708	1,651	1,608	1,573	1,546	1,522	1,486	1,459	1,437	1,420	1,406	1,360	1,335	1,309	1,286	1,267
200	1,698	1,640	1,597	1,562	1,534	1,511	1,474	1,447	1,425	1,407	1,393	1,346	1,320	1,293	1,269	1,250
300	1,674	1,616	1,571	1,536	1,507	1,484	1,446	1,417	1,395	1,377	1,361	1,312	1,285	1,255	1,228	1,206
400	1,662	1,603	1,558	1,523	1,494	1,470	1,432	1,403	1,380	1,361	1,345	1,294	1,266	1,234	1,206	1,182
500	1,655	1,596	1,551	1,515	1,486	1,462	1,423	1,394	1,370	1,351	1,336	1,284	1,254	1,222	1,192	1,166
750	1,645	1,586	1,541	1,505	1,475	1,451	1,412	1,382	1,358	1,339	1,322	1,269	1,239	1,204	1,172	1,144
1000	1,640	1,581	1,535	1,499	1,470	1,445	1,406	1,376	1,352	1,332	1,316	1,262	1,230	1,195	1,162	1,132

F distribution

$\alpha = 0.05$



Example: for n_1 =5, n_2 =10 and α =0.05, $F_{0.05}$(5,10) =4.735, means that $P(F(5,10) > 4.735) = 0.05$

	n_1															
n_2	1	2	3	4	5	6	7	8	9	10	12	15	16	18	20	24
1	161.4	199.5	215.7	224.6	230.2	234.0	236.8	238.9	240.5	241.9	243.9	245.9	246.5	247.3	248.0	249.1
2	18.51	19.00	19.16	19.25	19.30	19.33	19.35	19.37	19.38	19.40	19.41	19.43	19.43	19.44	19.45	19.45
3	10.13	9.552	9.277	9.117	9.013	8.941	8.887	8.845	8.812	8.786	8.745	8.703	8.692	8.675	8.660	8.639
4	7.709	6.944	6.591	6.388	6.256	6.163	6.094	6.041	5.999	5.964	5.912	5.858	5.844	5.821	5.803	5.774
5	6.608	5.786	5.409	5.192	5.050	4.950	4.876	4.818	4.772	4.735	4.678	4.619	4.604	4.579	4.558	4.527
6	5.987	5.143	4.757	4.534	4.387	4.284	4.207	4.147	4.099	4.060	4.000	3.938	3.922	3.896	3.874	3.841
7	5.591	4.737	4.347	4.120	3.972	3.866	3.787	3.726	3.677	3.637	3.575	3.511	3.494	3.467	3.445	3.410
8	5.318	4.459	4.066	3.838	3.687	3.581	3.500	3.438	3.388	3.347	3.284	3.218	3.202	3.173	3.150	3.115
9	5.117	4.256	3.863	3.633	3.482	3.374	3.293	3.230	3.179	3.137	3.073	3.006	2.989	2.960	2.936	2.900
10	4.965	4.103	3.708	3.478	3.326	3.217	3.135	3.072	3.020	2.978	2.913	2.845	2.828	2.798	2.774	2.737
11	4.844	3.982	3.587	3.357	3.204	3.095	3.012	2.948	2.896	2.854	2.788	2.719	2.701	2.671	2.646	2.609
12	4.747	3.885	3.490	3.259	3.106	2.996	2.913	2.849	2.796	2.753	2.687	2.617	2.599	2.568	2.544	2.505
13	4.667	3.806	3.411	3.179	3.025	2.915	2.832	2.767	2.714	2.671	2.604	2.533	2.515	2.484	2.459	2.420
14	4.600	3.739	3.344	3.112	2.958	2.848	2.764	2.699	2.646	2.602	2.534	2.463	2.445	2.413	2.388	2.349
15	4.543	3.682	3.287	3.056	2.901	2.790	2.707	2.641	2.588	2.544	2.475	2.403	2.385	2.353	2.328	2.288
16	4.494	3.634	3.239	3.007	2.852	2.741	2.657	2.591	2.538	2.494	2.425	2.352	2.333	2.302	2.276	2.235
17	4.451	3.592	3.197	2.965	2.810	2.699	2.614	2.548	2.494	2.450	2.381	2.308	2.289	2.257	2.230	2.190
18	4.414	3.555	3.160	2.928	2.773	2.661	2.577	2.510	2.456	2.412	2.342	2.269	2.250	2.217	2.191	2.150
19	4.381	3.522	3.127	2.895	2.740	2.628	2.544	2.477	2.423	2.378	2.308	2.234	2.215	2.182	2.155	2.114
20	4.351	3.493	3.098	2.866	2.711	2.599	2.514	2.447	2.393	2.348	2.278	2.203	2.184	2.151	2.124	2.082
21	4.325	3.467	3.072	2.840	2.685	2.573	2.488	2.420	2.366	2.321	2.250	2.176	2.156	2.123	2.096	2.054
22	4.301	3.443	3.049	2.817	2.661	2.549	2.464	2.397	2.342	2.297	2.226	2.151	2.131	2.098	2.071	2.028
23	4.279	3.422	3.028	2.796	2.640	2.528	2.442	2.375	2.320	2.275	2.204	2.128	2.109	2.075	2.048	2.005
24	4.260	3.403	3.009	2.776	2.621	2.508	2.423	2.355	2.300	2.255	2.183	2.108	2.088	2.054	2.027	1.984
25	4.242	3.385	2.991	2.759	2.603	2.490	2.405	2.337	2.282	2.236	2.165	2.089	2.069	2.035	2.007	1.964
26	4.225	3.369	2.975	2.743	2.587	2.474	2.388	2.321	2.265	2.220	2.148	2.072	2.052	2.018	1.990	1.946
27	4.210	3.354	2.960	2.728	2.572	2.459	2.373	2.305	2.250	2.204	2.132	2.056	2.036	2.002	1.974	1.930
28	4.196	3.340	2.947	2.714	2.558	2.445	2.359	2.291	2.236	2.190	2.118	2.041	2.021	1.987	1.959	1.915
29	4.183	3.328	2.934	2.701	2.545	2.432	2.346	2.278	2.223	2.177	2.104	2.027	2.007	1.973	1.945	1.901
30	4.171	3.316	2.922	2.690	2.534	2.421	2.334	2.266	2.211	2.165	2.092	2.015	1.995	1.960	1.932	1.887
35	4.121	3.267	2.874	2.641	2.485	2.372	2.285	2.217	2.161	2.114	2.041	1.963	1.942	1.907	1.878	1.833
40	4.085	3.232	2.839	2.606	2.449	2.336	2.249	2.180	2.124	2.077	2.003	1.924	1.904	1.868	1.839	1.793
45	4.057	3.204	2.812	2.579	2.422	2.308	2.221	2.152	2.096	2.049	1.974	1.895	1.874	1.838	1.808	1.762
50	4.034	3.183	2.790	2.557	2.400	2.286	2.199	2.130	2.073	2.026	1.952	1.871	1.850	1.814	1.784	1.737
60	4.001	3.150	2.758	2.525	2.368	2.254	2.167	2.097	2.040	1.993	1.917	1.836	1.815	1.778	1.748	1.700
70	3.978	3.128	2.736	2.503	2.346	2.231	2.143	2.074	2.017	1.969	1.893	1.812	1.790	1.753	1.722	1.674
80	3.960	3.111	2.719	2.486	2.329	2.214	2.126	2.056	1.999	1.951	1.875	1.793	1.772	1.734	1.703	1.654
100	3.936	3.087	2.696	2.463	2.305	2.191	2.103	2.032	1.975	1.927	1.850	1.768	1.746	1.708	1.676	1.627
125	3.917	3.069	2.677	2.444	2.287	2.172	2.084	2.013	1.956	1.907	1.830	1.747	1.725	1.687	1.655	1.605
150	3.904	3.056	2.665	2.432	2.274	2.160	2.071	2.001	1.943	1.894	1.817	1.734	1.711	1.673	1.641	1.590
175	3.895	3.048	2.656	2.423	2.266	2.151	2.062	1.992	1.934	1.885	1.808	1.724	1.702	1.663	1.631	1.580
200	3.888	3.041	2.650	2.417	2.259	2.144	2.056	1.985	1.927	1.878	1.801	1.717	1.694	1.656	1.623	1.572
300	3.873	3.026	2.635	2.402	2.244	2.129	2.040	1.969	1.911	1.862	1.785	1.700	1.677	1.638	1.606	1.554
400	3.865	3.018	2.627	2.394	2.237	2.121	2.032	1.962	1.903	1.854	1.776	1.691	1.669	1.630	1.597	1.545
500	3.860	3.014	2.623	2.390	2.232	2.117	2.028	1.957	1.899	1.850	1.772	1.686	1.664	1.625	1.592	1.539
750	3.854	3.008	2.617	2.384	2.226	2.111	2.022	1.951	1.892	1.843	1.765	1.680	1.657	1.618	1.585	1.532
1000	3.851	3.005	2.614	2.381	2.223	2.108	2.019	1.948	1.889	1.840	1.762	1.676	1.654	1.614	1.581	1.528

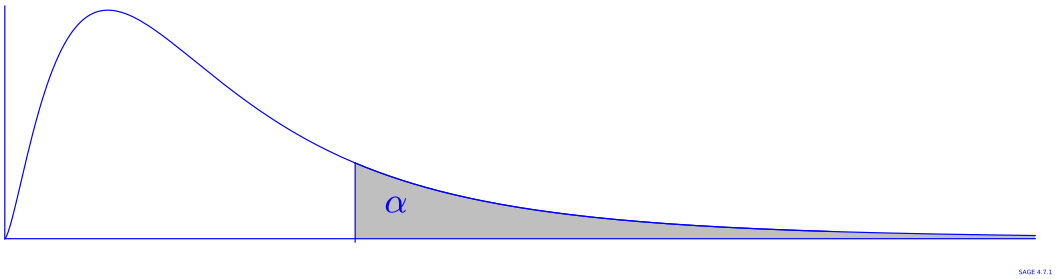
F distribution

$\alpha = 0.05$

n_2 \ n_1	25	30	35	40	45	50	60	70	80	90	100	150	200	300	500	1000
1	249.3	250.1	250.7	251.1	251.5	251.8	252.2	252.5	252.7	252.9	253.0	253.5	253.7	253.9	254.1	254.2
2	19.46	19.46	19.47	19.47	19.47	19.48	19.48	19.48	19.48	19.48	19.49	19.49	19.49	19.49	19.49	19.49
3	8.634	8.617	8.604	8.594	8.587	8.581	8.572	8.566	8.561	8.557	8.554	8.545	8.540	8.536	8.532	8.529
4	5.769	5.746	5.729	5.717	5.707	5.699	5.688	5.679	5.673	5.668	5.664	5.652	5.646	5.640	5.635	5.632
5	4.521	4.496	4.478	4.464	4.453	4.444	4.431	4.422	4.415	4.409	4.405	4.392	4.385	4.378	4.373	4.369
6	3.835	3.808	3.789	3.774	3.763	3.754	3.740	3.730	3.722	3.716	3.712	3.698	3.690	3.683	3.678	3.673
7	3.404	3.376	3.356	3.340	3.328	3.319	3.304	3.294	3.286	3.280	3.275	3.260	3.252	3.245	3.239	3.234
8	3.108	3.079	3.059	3.043	3.030	3.020	3.005	2.994	2.986	2.980	2.975	2.959	2.951	2.943	2.937	2.932
9	2.893	2.864	2.842	2.826	2.813	2.803	2.787	2.776	2.768	2.761	2.756	2.739	2.731	2.723	2.717	2.712
10	2.730	2.700	2.678	2.661	2.648	2.637	2.621	2.610	2.601	2.594	2.588	2.572	2.563	2.555	2.548	2.543
11	2.601	2.570	2.548	2.531	2.517	2.507	2.490	2.478	2.469	2.462	2.457	2.439	2.431	2.422	2.415	2.410
12	2.498	2.466	2.443	2.426	2.412	2.401	2.384	2.372	2.363	2.356	2.350	2.332	2.323	2.314	2.307	2.302
13	2.412	2.380	2.357	2.339	2.325	2.314	2.297	2.284	2.275	2.267	2.261	2.243	2.234	2.225	2.218	2.212
14	2.341	2.308	2.284	2.266	2.252	2.241	2.223	2.210	2.201	2.193	2.187	2.169	2.159	2.150	2.142	2.136
15	2.280	2.247	2.223	2.204	2.190	2.178	2.160	2.147	2.137	2.130	2.123	2.105	2.095	2.085	2.078	2.072
16	2.227	2.194	2.169	2.151	2.136	2.124	2.106	2.093	2.083	2.075	2.068	2.049	2.039	2.030	2.022	2.016
17	2.181	2.148	2.123	2.104	2.089	2.077	2.058	2.045	2.035	2.027	2.020	2.001	1.991	1.981	1.973	1.967
18	2.141	2.107	2.082	2.063	2.048	2.035	2.017	2.003	1.993	1.985	1.978	1.958	1.948	1.938	1.929	1.923
19	2.106	2.071	2.046	2.026	2.011	1.999	1.980	1.966	1.955	1.947	1.940	1.920	1.910	1.899	1.891	1.884
20	2.074	2.039	2.013	1.994	1.978	1.966	1.946	1.932	1.922	1.913	1.907	1.886	1.875	1.865	1.856	1.850
21	2.045	2.010	1.984	1.965	1.949	1.936	1.916	1.902	1.891	1.883	1.876	1.855	1.845	1.834	1.825	1.818
22	2.020	1.984	1.958	1.938	1.922	1.909	1.889	1.875	1.864	1.856	1.849	1.827	1.817	1.806	1.797	1.790
23	1.996	1.961	1.934	1.914	1.898	1.885	1.865	1.850	1.839	1.830	1.823	1.802	1.791	1.780	1.771	1.764
24	1.975	1.939	1.912	1.892	1.876	1.863	1.842	1.828	1.816	1.808	1.800	1.779	1.768	1.756	1.747	1.740
25	1.955	1.919	1.892	1.872	1.855	1.842	1.822	1.807	1.796	1.787	1.779	1.757	1.746	1.735	1.725	1.718
26	1.938	1.901	1.874	1.853	1.837	1.823	1.803	1.788	1.776	1.767	1.760	1.738	1.726	1.714	1.705	1.698
27	1.921	1.884	1.857	1.836	1.819	1.806	1.785	1.770	1.758	1.749	1.742	1.719	1.708	1.696	1.686	1.679
28	1.906	1.869	1.841	1.820	1.803	1.790	1.769	1.754	1.742	1.733	1.725	1.702	1.691	1.679	1.669	1.662
29	1.891	1.854	1.827	1.806	1.789	1.775	1.754	1.738	1.726	1.717	1.710	1.686	1.675	1.663	1.653	1.645
30	1.878	1.841	1.813	1.792	1.775	1.761	1.740	1.724	1.712	1.703	1.695	1.672	1.660	1.647	1.637	1.630
35	1.824	1.786	1.757	1.735	1.718	1.703	1.681	1.665	1.652	1.643	1.635	1.610	1.598	1.585	1.574	1.566
40	1.783	1.744	1.715	1.693	1.675	1.660	1.637	1.621	1.608	1.597	1.589	1.564	1.551	1.537	1.526	1.517
45	1.752	1.713	1.683	1.660	1.642	1.626	1.603	1.586	1.573	1.562	1.554	1.527	1.513	1.499	1.488	1.479
50	1.727	1.687	1.657	1.634	1.615	1.599	1.576	1.558	1.544	1.534	1.525	1.498	1.484	1.469	1.457	1.448
60	1.690	1.649	1.618	1.594	1.575	1.559	1.534	1.516	1.502	1.491	1.481	1.453	1.438	1.422	1.409	1.399
70	1.664	1.622	1.591	1.566	1.546	1.530	1.505	1.486	1.471	1.459	1.450	1.420	1.404	1.388	1.374	1.364
80	1.644	1.602	1.570	1.545	1.525	1.508	1.482	1.463	1.448	1.436	1.426	1.395	1.379	1.361	1.347	1.336
100	1.616	1.573	1.541	1.515	1.494	1.477	1.450	1.430	1.415	1.402	1.392	1.359	1.342	1.323	1.308	1.296
125	1.594	1.551	1.517	1.491	1.470	1.452	1.425	1.404	1.388	1.375	1.364	1.330	1.311	1.291	1.275	1.262
150	1.580	1.535	1.502	1.475	1.454	1.436	1.407	1.386	1.369	1.356	1.345	1.309	1.290	1.269	1.252	1.238
175	1.569	1.525	1.491	1.464	1.442	1.424	1.395	1.373	1.356	1.342	1.331	1.294	1.274	1.253	1.234	1.220
200	1.561	1.516	1.482	1.455	1.433	1.415	1.386	1.364	1.346	1.332	1.321	1.283	1.263	1.240	1.221	1.205
300	1.543	1.497	1.463	1.435	1.412	1.393	1.363	1.341	1.323	1.308	1.296	1.256	1.234	1.210	1.188	1.170
400	1.534	1.488	1.453	1.425	1.402	1.383	1.352	1.329	1.311	1.296	1.283	1.242	1.219	1.193	1.170	1.150
500	1.528	1.482	1.447	1.419	1.396	1.376	1.345	1.322	1.303	1.288	1.275	1.233	1.210	1.183	1.159	1.138
750	1.521	1.474	1.439	1.410	1.387	1.368	1.336	1.313	1.294	1.278	1.265	1.222	1.197	1.169	1.143	1.120
1000	1.517	1.471	1.435	1.406	1.383	1.363	1.332	1.308	1.289	1.273	1.260	1.216	1.190	1.161	1.134	1.110

F distribution

$\alpha = 0.10$



Example: f or $n_1 = 5$, $n_2 = 10$ and $\alpha = 0.10$, $F_{0.1}(5, 10) = 2.522$, means that $P(F(5, 10) > 2.522) = 0.1$

	n_1															
n_2	1	2	3	4	5	6	7	8	9	10	12	15	16	18	20	24
1	39.86	49.50	53.59	55.83	57.24	58.20	58.91	59.44	59.86	60.19	60.71	61.22	61.35	61.57	61.74	62.00
2	8.526	9.000	9.162	9.243	9.293	9.326	9.349	9.367	9.381	9.392	9.408	9.425	9.429	9.436	9.441	9.450
3	5.538	5.462	5.391	5.343	5.309	5.285	5.266	5.252	5.240	5.230	5.216	5.200	5.196	5.190	5.184	5.176
4	4.545	4.325	4.191	4.107	4.051	4.010	3.979	3.955	3.936	3.920	3.896	3.870	3.864	3.853	3.844	3.831
5	4.060	3.780	3.619	3.520	3.453	3.405	3.368	3.339	3.316	3.297	3.268	3.238	3.230	3.217	3.207	3.191
6	3.776	3.463	3.289	3.181	3.108	3.055	3.014	2.983	2.958	2.937	2.905	2.871	2.863	2.848	2.836	2.818
7	3.589	3.257	3.074	2.961	2.883	2.827	2.785	2.752	2.725	2.703	2.668	2.632	2.623	2.607	2.595	2.575
8	3.458	3.113	2.924	2.806	2.726	2.668	2.624	2.589	2.561	2.538	2.502	2.464	2.455	2.438	2.425	2.404
9	3.360	3.006	2.813	2.693	2.611	2.551	2.505	2.469	2.440	2.416	2.379	2.340	2.329	2.312	2.298	2.277
10	3.285	2.924	2.728	2.605	2.522	2.461	2.414	2.377	2.347	2.323	2.284	2.244	2.233	2.215	2.201	2.178
11	3.225	2.860	2.660	2.536	2.451	2.389	2.342	2.304	2.274	2.248	2.209	2.167	2.156	2.138	2.123	2.100
12	3.177	2.807	2.606	2.480	2.394	2.331	2.283	2.245	2.214	2.188	2.147	2.105	2.094	2.075	2.060	2.036
13	3.136	2.763	2.560	2.434	2.347	2.283	2.234	2.195	2.164	2.138	2.097	2.053	2.042	2.023	2.007	1.983
14	3.102	2.726	2.522	2.395	2.307	2.243	2.193	2.154	2.122	2.095	2.054	2.010	1.998	1.978	1.962	1.938
15	3.073	2.695	2.490	2.361	2.273	2.208	2.158	2.119	2.086	2.059	2.017	1.972	1.961	1.941	1.924	1.899
16	3.048	2.668	2.462	2.333	2.244	2.178	2.128	2.088	2.055	2.028	1.985	1.940	1.928	1.908	1.891	1.866
17	3.026	2.645	2.437	2.308	2.218	2.152	2.102	2.061	2.028	2.001	1.958	1.912	1.900	1.879	1.862	1.836
18	3.007	2.624	2.416	2.286	2.196	2.130	2.079	2.038	2.005	1.977	1.933	1.887	1.875	1.854	1.837	1.810
19	2.990	2.606	2.397	2.266	2.176	2.109	2.058	2.017	1.984	1.956	1.912	1.865	1.852	1.831	1.814	1.787
20	2.975	2.589	2.380	2.249	2.158	2.091	2.040	1.999	1.965	1.937	1.892	1.845	1.833	1.811	1.794	1.767
21	2.961	2.575	2.365	2.233	2.142	2.075	2.023	1.982	1.948	1.920	1.875	1.827	1.815	1.793	1.776	1.748
22	2.949	2.561	2.351	2.219	2.128	2.060	2.008	1.967	1.933	1.904	1.859	1.811	1.798	1.777	1.759	1.731
23	2.937	2.549	2.339	2.207	2.115	2.047	1.995	1.953	1.919	1.890	1.845	1.796	1.784	1.762	1.744	1.716
24	2.927	2.538	2.327	2.195	2.103	2.035	1.983	1.941	1.906	1.877	1.832	1.783	1.770	1.748	1.730	1.702
25	2.918	2.528	2.317	2.184	2.092	2.024	1.971	1.929	1.895	1.866	1.820	1.771	1.758	1.736	1.718	1.689
26	2.909	2.519	2.307	2.174	2.082	2.014	1.961	1.919	1.884	1.855	1.809	1.760	1.747	1.724	1.706	1.677
27	2.901	2.511	2.299	2.165	2.073	2.005	1.952	1.909	1.874	1.845	1.799	1.749	1.736	1.714	1.695	1.666
28	2.894	2.503	2.291	2.157	2.064	1.996	1.943	1.900	1.865	1.836	1.790	1.740	1.726	1.704	1.685	1.656
29	2.887	2.495	2.283	2.149	2.057	1.988	1.935	1.892	1.857	1.827	1.781	1.731	1.717	1.695	1.676	1.647
30	2.881	2.489	2.276	2.142	2.049	1.980	1.927	1.884	1.849	1.819	1.773	1.722	1.709	1.686	1.667	1.638
35	2.855	2.461	2.247	2.113	2.019	1.950	1.896	1.852	1.817	1.787	1.739	1.688	1.674	1.651	1.632	1.601
40	2.835	2.440	2.226	2.091	1.997	1.927	1.873	1.829	1.793	1.763	1.715	1.662	1.649	1.625	1.605	1.574
45	2.820	2.425	2.210	2.074	1.980	1.909	1.855	1.811	1.774	1.744	1.695	1.643	1.629	1.605	1.585	1.553
50	2.809	2.412	2.197	2.061	1.966	1.895	1.840	1.796	1.760	1.729	1.680	1.627	1.613	1.588	1.568	1.536
60	2.791	2.393	2.177	2.041	1.946	1.875	1.819	1.775	1.738	1.707	1.657	1.603	1.589	1.564	1.543	1.511
70	2.779	2.380	2.164	2.027	1.931	1.860	1.804	1.760	1.723	1.691	1.641	1.587	1.572	1.547	1.526	1.493
80	2.769	2.370	2.154	2.016	1.921	1.849	1.793	1.748	1.711	1.680	1.629	1.574	1.559	1.534	1.513	1.479
100	2.756	2.356	2.139	2.002	1.906	1.834	1.778	1.732	1.695	1.663	1.612	1.557	1.542	1.516	1.494	1.460
125	2.746	2.346	2.128	1.990	1.894	1.822	1.765	1.720	1.682	1.650	1.599	1.543	1.528	1.502	1.480	1.445
150	2.739	2.338	2.121	1.983	1.886	1.814	1.757	1.712	1.674	1.642	1.590	1.533	1.518	1.492	1.470	1.434
175	2.734	2.333	2.115	1.977	1.880	1.808	1.751	1.706	1.668	1.635	1.584	1.527	1.512	1.485	1.463	1.427
200	2.731	2.329	2.111	1.973	1.876	1.804	1.747	1.701	1.663	1.631	1.579	1.522	1.507	1.480	1.458	1.422
300	2.722	2.320	2.102	1.964	1.867	1.794	1.737	1.691	1.652	1.620	1.568	1.510	1.495	1.468	1.445	1.409
400	2.718	2.316	2.098	1.959	1.862	1.789	1.732	1.686	1.647	1.615	1.562	1.504	1.489	1.462	1.439	1.402
500	2.716	2.313	2.095	1.956	1.859	1.786	1.729	1.683	1.644	1.612	1.559	1.501	1.485	1.458	1.435	1.399
750	2.712	2.310	2.091	1.952	1.855	1.782	1.725	1.678	1.640	1.607	1.555	1.496	1.481	1.453	1.430	1.393
1000	2.711	2.308	2.089	1.950	1.853	1.780	1.723	1.676	1.638	1.605	1.552	1.494	1.478	1.451	1.428	1.391

F distribution

$\alpha = 0.10$

n_2 \ n_1	25	30	35	40	45	50	60	70	80	90	100	150	200	300	500	1000
1	62.05	62.26	62.42	62.53	62.62	62.69	62.79	62.87	62.93	62.97	63.01	63.11	63.17	63.22	63.26	63.30
2	9.451	9.458	9.463	9.466	9.469	9.471	9.475	9.477	9.479	9.480	9.481	9.485	9.486	9.488	9.489	9.490
3	5.175	5.168	5.163	5.160	5.157	5.155	5.151	5.149	5.147	5.145	5.144	5.141	5.139	5.137	5.136	5.135
4	3.828	3.817	3.810	3.804	3.799	3.795	3.790	3.786	3.782	3.780	3.778	3.772	3.769	3.767	3.764	3.762
5	3.187	3.174	3.165	3.157	3.152	3.147	3.140	3.135	3.132	3.129	3.126	3.119	3.116	3.112	3.109	3.107
6	2.815	2.800	2.789	2.781	2.775	2.770	2.762	2.756	2.752	2.749	2.746	2.738	2.734	2.730	2.727	2.725
7	2.571	2.555	2.544	2.535	2.528	2.523	2.514	2.508	2.504	2.500	2.497	2.488	2.484	2.480	2.476	2.473
8	2.400	2.383	2.371	2.361	2.354	2.348	2.339	2.333	2.328	2.324	2.321	2.312	2.307	2.302	2.298	2.295
9	2.272	2.255	2.242	2.232	2.224	2.218	2.208	2.202	2.196	2.192	2.189	2.179	2.174	2.169	2.165	2.162
10	2.174	2.155	2.142	2.132	2.124	2.117	2.107	2.100	2.095	2.090	2.087	2.077	2.071	2.066	2.062	2.059
11	2.095	2.076	2.062	2.052	2.043	2.036	2.026	2.019	2.013	2.009	2.005	1.994	1.989	1.983	1.979	1.975
12	2.031	2.011	1.997	1.986	1.977	1.970	1.960	1.952	1.946	1.942	1.938	1.927	1.921	1.915	1.911	1.907
13	1.978	1.958	1.943	1.931	1.923	1.915	1.904	1.896	1.890	1.886	1.882	1.870	1.864	1.858	1.853	1.850
14	1.933	1.912	1.897	1.885	1.876	1.869	1.857	1.849	1.843	1.838	1.834	1.822	1.816	1.810	1.805	1.801
15	1.894	1.873	1.857	1.845	1.836	1.828	1.817	1.808	1.802	1.797	1.793	1.781	1.774	1.768	1.763	1.759
16	1.860	1.839	1.823	1.811	1.801	1.793	1.782	1.773	1.766	1.761	1.757	1.744	1.738	1.731	1.726	1.722
17	1.831	1.809	1.793	1.781	1.771	1.763	1.751	1.742	1.735	1.730	1.726	1.713	1.706	1.699	1.694	1.690
18	1.805	1.783	1.766	1.754	1.744	1.736	1.723	1.714	1.707	1.702	1.698	1.684	1.678	1.671	1.665	1.661
19	1.782	1.759	1.743	1.730	1.720	1.711	1.699	1.690	1.683	1.677	1.673	1.659	1.652	1.645	1.639	1.635
20	1.761	1.738	1.721	1.708	1.698	1.690	1.677	1.667	1.660	1.655	1.650	1.636	1.629	1.622	1.616	1.612
21	1.742	1.719	1.702	1.689	1.678	1.670	1.657	1.647	1.640	1.634	1.630	1.616	1.608	1.601	1.595	1.591
22	1.726	1.702	1.685	1.671	1.661	1.652	1.639	1.629	1.622	1.616	1.611	1.597	1.590	1.582	1.576	1.571
23	1.710	1.686	1.669	1.655	1.645	1.636	1.622	1.613	1.605	1.599	1.594	1.580	1.572	1.565	1.558	1.554
24	1.696	1.672	1.654	1.641	1.630	1.621	1.607	1.597	1.590	1.584	1.579	1.564	1.556	1.549	1.542	1.538
25	1.683	1.659	1.641	1.627	1.616	1.607	1.593	1.583	1.576	1.569	1.565	1.549	1.542	1.534	1.527	1.523
26	1.671	1.647	1.629	1.615	1.604	1.594	1.581	1.570	1.562	1.556	1.551	1.536	1.528	1.520	1.514	1.509
27	1.660	1.636	1.617	1.603	1.592	1.583	1.569	1.558	1.550	1.544	1.539	1.523	1.515	1.507	1.501	1.496
28	1.650	1.625	1.607	1.592	1.581	1.572	1.558	1.547	1.539	1.533	1.528	1.512	1.504	1.495	1.489	1.484
29	1.640	1.616	1.597	1.583	1.571	1.562	1.547	1.537	1.529	1.522	1.517	1.501	1.493	1.484	1.478	1.472
30	1.632	1.606	1.588	1.573	1.562	1.552	1.538	1.527	1.519	1.512	1.507	1.491	1.482	1.474	1.467	1.462
35	1.595	1.569	1.550	1.535	1.523	1.513	1.497	1.486	1.478	1.471	1.465	1.448	1.439	1.430	1.423	1.417
40	1.568	1.541	1.521	1.506	1.493	1.483	1.467	1.455	1.447	1.439	1.434	1.416	1.406	1.397	1.389	1.383
45	1.546	1.519	1.499	1.483	1.470	1.460	1.443	1.431	1.422	1.415	1.409	1.390	1.380	1.370	1.362	1.356
50	1.529	1.502	1.481	1.465	1.452	1.441	1.424	1.412	1.402	1.395	1.388	1.369	1.359	1.349	1.340	1.333
60	1.504	1.476	1.454	1.437	1.424	1.413	1.395	1.382	1.372	1.364	1.358	1.337	1.326	1.315	1.306	1.299
70	1.486	1.457	1.435	1.418	1.404	1.392	1.374	1.361	1.350	1.342	1.335	1.314	1.302	1.291	1.281	1.273
80	1.472	1.443	1.420	1.403	1.388	1.377	1.358	1.344	1.334	1.325	1.318	1.296	1.284	1.271	1.261	1.253
100	1.453	1.423	1.400	1.382	1.367	1.355	1.336	1.321	1.310	1.301	1.293	1.270	1.257	1.244	1.232	1.223
125	1.437	1.407	1.383	1.365	1.350	1.337	1.317	1.302	1.291	1.281	1.273	1.248	1.235	1.220	1.208	1.198
150	1.427	1.396	1.372	1.353	1.338	1.325	1.305	1.289	1.277	1.268	1.259	1.233	1.219	1.204	1.191	1.181
175	1.420	1.388	1.364	1.345	1.330	1.317	1.296	1.280	1.268	1.258	1.249	1.223	1.208	1.192	1.178	1.167
200	1.414	1.383	1.358	1.339	1.323	1.310	1.289	1.273	1.261	1.250	1.242	1.214	1.199	1.183	1.168	1.157
300	1.401	1.369	1.344	1.325	1.308	1.295	1.273	1.256	1.243	1.233	1.224	1.194	1.178	1.160	1.144	1.130
400	1.395	1.362	1.337	1.317	1.301	1.287	1.265	1.248	1.235	1.223	1.214	1.184	1.167	1.147	1.130	1.115
500	1.391	1.358	1.333	1.313	1.296	1.282	1.260	1.243	1.229	1.218	1.209	1.178	1.160	1.140	1.122	1.106
750	1.386	1.353	1.327	1.307	1.290	1.276	1.253	1.236	1.222	1.210	1.201	1.169	1.150	1.129	1.109	1.092
1000	1.383	1.350	1.325	1.304	1.287	1.273	1.250	1.232	1.218	1.207	1.197	1.164	1.145	1.124	1.103	1.084