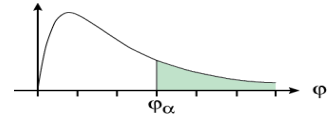


TABLE: F-Distribution Critical Values



$\alpha= 0.01$												
ν_1												
ν_2	1	2	3	4	5	6	7	8	9	10	15	20
1	4052.2	4999.5	5403.4	5624.6	5763.6	5859.0	5928.4	5981.1	6022.5	6055.8	6157.3	6208.7
2	98.503	99.000	99.166	99.249	99.299	99.333	99.356	99.374	99.388	99.399	99.433	99.449
3	34.116	30.817	29.457	28.710	28.237	27.911	27.672	27.489	27.345	27.229	26.872	26.690
4	21.198	18.000	16.694	15.977	15.522	15.207	14.976	14.799	14.659	14.546	14.198	14.020
5	16.258	13.274	12.060	11.392	10.967	10.672	10.456	10.289	10.158	10.051	9.7222	9.5526
6	13.745	10.925	9.7795	9.1483	8.7459	8.4661	8.2600	8.1017	7.9761	7.8741	7.5590	7.3958
7	12.246	9.5466	8.4513	7.8466	7.4604	7.1914	6.9928	6.8400	6.7188	6.6201	6.3143	6.1554
8	11.259	8.6491	7.5910	7.0061	6.6318	6.3707	6.1776	6.0289	5.9106	5.8143	5.5151	5.3591
9	10.561	8.0215	6.9919	6.4221	6.0569	5.8018	5.6129	5.4671	5.3511	5.2565	4.9621	4.8080
10	10.044	7.5594	6.5523	5.9943	5.6363	5.3858	5.2001	5.0567	4.9424	4.8491	4.5581	4.4054
15	8.6831	6.3589	5.4170	4.8932	4.5556	4.3183	4.1415	4.0045	3.8948	3.8049	3.5222	3.3719
20	8.0960	5.8489	4.9382	4.4307	4.1027	3.8714	3.6987	3.5644	3.4567	3.3682	3.0880	2.9377
24	7.8229	5.6136	4.7181	4.2184	3.8951	3.6667	3.4959	3.3629	3.2560	3.1681	2.8887	2.7380
25	7.7698	5.5680	4.6755	4.1774	3.8550	3.6272	3.4568	3.3239	3.2172	3.1294	2.8502	2.6993
30	7.5625	5.3903	4.5097	4.0179	3.6990	3.4735	3.3045	3.1726	3.0665	2.9791	2.7002	2.5487
35	7.4191	5.2679	4.3957	3.9082	3.5919	3.3679	3.2000	3.0687	2.9630	2.8758	2.5970	2.4448
40	7.3141	5.1785	4.3126	3.8283	3.5138	3.2910	3.1238	2.9930	2.8876	2.8005	2.5216	2.3689
48	7.1942	5.0767	4.2180	3.7374	3.4251	3.2036	3.0372	2.9069	2.8018	2.7150	2.4358	2.2823
60	7.0771	4.9774	4.1259	3.6490	3.3389	3.1187	2.9530	2.8233	2.7185	2.6318	2.3523	2.1978
63	7.0551	4.9588	4.1086	3.6325	3.3227	3.1028	2.9373	2.8076	2.7028	2.6162	2.3366	2.1819
80	6.9627	4.8807	4.0363	3.5631	3.2550	3.0361	2.8713	2.7420	2.6374	2.5508	2.2709	2.1153
99	6.8980	4.8262	3.9858	3.5147	3.2078	2.9896	2.8252	2.6962	2.5917	2.5052	2.2249	2.0686
120	6.8509	4.7865	3.9491	3.4795	3.1735	2.9559	2.7918	2.6629	2.5586	2.4721	2.1915	2.0346
∞	6.6349	4.6052	3.7816	3.3192	3.0173	2.8020	2.6393	2.5113	2.4073	2.3209	2.0385	1.8783

$\alpha= 0.01$												
ν_1												
ν_2	24	25	30	35	40	48	60	63	80	99	120	∞
1	6234.6	6239.8	6260.6	6275.6	6286.8	6299.9	6313.0	6315.5	6326.2	6333.8	6339.4	6365.9
2	99.458	99.459	99.466	99.471	99.474	99.478	99.482	99.483	99.487	99.489	99.491	99.499
3	26.598	26.579	26.505	26.451	26.411	26.364	26.316	26.307	26.269	26.241	26.221	26.125
4	13.929	13.911	13.838	13.785	13.745	13.699	13.652	13.643	13.605	13.578	13.558	13.463
5	9.4665	9.4491	9.3793	9.3291	9.2912	9.2467	9.2020	9.1935	9.1570	9.1310	9.1118	9.0204
6	7.3127	7.2960	7.2285	7.1799	7.1432	7.1001	7.0567	7.0484	7.0130	6.9877	6.9690	6.8800
7	6.0743	6.0580	5.9920	5.9444	5.9084	5.8662	5.8236	5.8154	5.7806	5.7557	5.7373	5.6495
8	5.2793	5.2631	5.1981	5.1512	5.1156	5.0738	5.0316	5.0235	4.9890	4.9643	4.9461	4.8588
9	4.7290	4.7130	4.6486	4.6020	4.5666	4.5251	4.4831	4.4750	4.4407	4.4160	4.3978	4.3105
10	4.3269	4.3111	4.2469	4.2005	4.1653	4.1238	4.0819	4.0738	4.0394	4.0148	3.9965	3.9090
15	3.2940	3.2782	3.2141	3.1674	3.1319	3.0899	3.0471	3.0389	3.0037	2.9783	2.9595	2.8684
20	2.8594	2.8434	2.7785	2.7310	2.6947	2.6517	2.6077	2.5992	2.5628	2.5364	2.5168	2.4212
24	2.6591	2.6430	2.5773	2.5292	2.4923	2.4484	2.4035	2.3948	2.3573	2.3302	2.3100	2.2107
25	2.6203	2.6041	2.5383	2.4900	2.4530	2.4089	2.3637	2.3550	2.3173	2.2900	2.2696	2.1694
30	2.4689	2.4526	2.3860	2.3369	2.2992	2.2542	2.2079	2.1989	2.1601	2.1319	2.1108	2.0062
35	2.3645	2.3480	2.2806	2.2309	2.1926	2.1467	2.0994	2.0902	2.0505	2.0214	1.9996	1.8910
40	2.2880	2.2714	2.2034	2.1531	2.1142	2.0676	2.0194	2.0100	1.9694	1.9396	1.9172	1.8047
48	2.2007	2.1839	2.1150	2.0639	2.0244	1.9768	1.9273	1.9177	1.8757	1.8449	1.8217	1.7035
60	2.1154	2.0984	2.0285	1.9764	1.9360	1.8872	1.8363	1.8263	1.7828	1.7507	1.7263	1.6006
63	2.0993	2.0823	2.0122	1.9599	1.9193	1.8703	1.8190	1.8090	1.7652	1.7328	1.7081	1.5807
80	2.0318	2.0146	1.9435	1.8904	1.8489	1.7986	1.7459	1.7355	1.6901	1.6563	1.6305	1.4942
99	1.9845	1.9671	1.8953	1.8414	1.7993	1.7480	1.6940	1.6833	1.6365	1.6015	1.5746	1.4300
120	1.9500	1.9325	1.8600	1.8055	1.7628	1.7108	1.6557	1.6448	1.5968	1.5608	1.5330	1.3805
∞	1.7908	1.7726	1.6964	1.6383	1.5923	1.5351	1.4730	1.4605	1.4041	1.3600	1.3246	1.0000