99.999*th* PERCENTILES FOR THE *F* DISTRIBUTION [F_{ν_1,ν_2}]

[calculated with *qf* in **R** version 3.3.2 using 17-digit arithmetic; the accuracy of all digits in the table entries has *not* been verified]

Each table entry is the value (y) of the random variable $Y \sim F_{\nu_1,\nu_2}$ such that $\Pr(Y \le y) = 0.99999$ (ν_1 is the numerator, ν_2 the denominator, degrees of freedom)

F_{ν_1,ν_2} .99999

Df → ↓ ν_2/ν_1	1	2	3	4	5	6	7	8	9	10	12	15	20	25	30	40	50	60	75	100	175	350	1,000	
1	4052847345	5000000000	5403796460	5625000000	5764049558	5859375000	5928736688	5981445312	6022843620	6056213379	6106681823	6157640175	6209080226	6240171780	6260993029	6287123725	6302857198	6313368946	6323898811	6334446708	6348034646	6357109661	6363015421	1
2	99998.5	99999.0	99999.2	99999.2	99999.3	99999.3	99999.4	99999.4	99999.4	99999.4	99999.4	99999.4	99999.4	99999.5	99999.5	99999.5	99999.5	99999.5	99999.5	99999.5	99999.5	99999.5	99999.5	
3	3647.8	3230.2	3064.8	2975.3	2919.2	2880.6	2852.5	2831.1	2814.2	2800.6	2779.9	2759.0	2737.8	2724.9	2716.3	2705.4	2698.9	2694.5	2690.1	2685.7	2680.0	2676.2	2673.7	
4	771.26	630.46	575.79	546.39	527.95	515.29	506.04	499.00	493.45	488.96	482.16	475.25	468.24	463.98	461.12	457.52	455.35	453.89	452.43	450.97	449.08	447.81	446.99	
5	320.30	247.50	219.64	204.71	195.36	188.94	184.25	180.67	177.85	175.57	172.11	168.60	165.02	162.85	161.39	159.55	158.44	157.69	156.94	156.19	155.22	154.57	154.15	5
6	183.747	136.248	118.255	108.643	102.328	98.497	95.480	93.178	91.363	89.894	87.662	85.393	83.083	81.677	80.730	79.536	78.814	78.330	77.844	77.356	76.725	76.302	76.027	
7	125.773	90.394	77.095	70.007	65.574	62.530	60.306	58.608	57.269	56.185	54.536	52.858	51.148	50.106	49.403	48.517	47.980	47.620	47.258	46.895	46.425	46.110	45.905	
8	95.698	67.131	56.455	50.775	47.224	44.786	43.004	41.644	40.570	39.700	38.376	37.028	35.653	34.813	34.247	33.532	33.098	32.807	32.515	32.221	31.840	31.585	31.418	
9	77.924	53.620	44.578	39.774	36.772	34.710	33.203	32.052	31.143	30.406	29.285	28.142	26.974	26.260	25.778	25.169	24.800	24.552	24.302	24.051	23.726	23.508	23.365	
10	66.427	45.000	37.057	32.842	30.209	28.400	27.077	26.067	25.268	24.621	23.636	22.630	21.601	20.972	20.547	20.009	19.682	19.463	19.242	19.019	18.731	18.538	18.411	10
11	58.484	39.112	31.952	28.156	25.785	24.156	22.965	22.054	21.334	20.751	19.861	18.953	18.024	17.454	17.069	16.581	16.285	16.085	15.885	15.683	15.421	15.244	15.129	
12	52.717	34.878	28.300	24.815	22.639	21.143	20.049	19.213	18.552	18.016	17.198	16.362	15.505	14.980	14.625	14.174	13.900	13.716	13.530	13.343	13.100	12.936	12.829	
13	48.364	31.707	25.578	22.333	20.306	18.913	17.894	17.115	16.498	15.998	15.236	14.455	13.655	13.164	12.831	12.409	12.152	11.978	11.804	11.628	11.400	11.246	11.145	
14	44.9765	29.2563	23.4820	20.4259	18.5176	17.2060	16.2462	15.5119	14.9311	14.4597	13.7401	13.0037	12.2476	11.7830	11.4681	11.0681	10.8243	10.6601	10.4946	10.3275	10.1103	9.9640	9.8682	
15	42.2727	27.3119	21.8247	18.9218	17.1091	15.8632	14.9513	14.2533	13.7011	13.2529	12.5683	11.8673	11.1468	10.7037	10.4031	10.0210	9.7879	9.6309	9.4724	9.3123	9.1041	8.9638	8.8718	15
16	40.0695	25.7357	20.4852	17.7085	15.9748	14.7829	13.9104	13.2424	12.7138	12.2846	11.6289	10.9569	10.2657	9.8402	9.5514	9.1839	8.9595	8.8082	8.6555	8.5011	8.3002	8.1647	8.0758	
17	38.2427	24.4347	19.3825	16.7115	15.0438	13.8973	13.0577	12.4148	11.9060	11.4926	10.8610	10.2133	9.5466	9.1358	8.8567	8.5013	8.2842	8.1377	7.9896	7.8400	7.6451	7.5134	7.4271	
18	36.7052	23.3443	18.4605	15.8792	14.2676	13.1594	12.3478	11.7262	11.2341	10.8343	10.2231	9.5960	8.9499	8.5515	8.2806	7.9354	7.7244	7.5819	7.4378	7.2921	7.1021	6.9737	6.8894	
19	35.3948	22.4183	17.6791	15.1749	13.6114	12.5362	11.7486	11.1453	10.6675	10.2793	9.6856	9.0761	8.4478	8.0599	7.7961	7.4596	7.2536	7.1145	6.9738	6.8314	6.6456	6.5199	6.4373	
20	34.2654	21.6228	17.0091	14.5718	13.0501	12.0035	11.2367	10.6493	10.1839	9.8057	9.2272	8.6330	8.0199	7.6412	7.3834	7.0544	6.8529	6.7166	6.5788	6.4392	6.2569	6.1335	6.0524	20
22	32.4200	20.3284	15.9217	13.5946	12.1417	11.1422	10.4097	9.8484	9.4035	9.0419	8.4883	7.9191	7.3312	6.9674	6.7195	6.4026	6.2082	6.0766	5.9433	5.8082	5.6315	5.5116	5.4328	
24	30.9779	19.3219	15.0786	12.8385	11.4398	10.4775	9.7721	9.2313	8.8026	8.4540	7.9200	7.3706	6.8023	6.4502	6.2100	5.9024	5.7135	5.5855	5.4557	5.3240	5.1514	5.0342	4.9570	
26	29.8214	18.5180	14.4070	12.2372	10.8823	9.9501	9.2665	8.7423	8.3267	7.9885	7.4704	6.9369	6.3844	6.0417	5.8075	5.5075	5.3229	5.1977	5.0705	4.9414	4.7719	4.6566	4.5806	
28	28.8740	17.8618	13.8599	11.7481	10.4294	9.5219	8.8564	8.3459	7.9410	7.6115	7.1064	6.5860	6.0464	5.7113	5.4822	5.1881	5.0070	4.8840	4.7590	4.6319	4.4648	4.3510	4.2758	
30	28.0842	17.3165	13.4060	11.3429	10.0545	9.1678	8.5174	8.0184	7.6225	7.3002	6.8060	6.2965	5.7678	5.4390	5.2140	4.9249	4.7465	4.6253	4.5021	4.3765	4.2113	4.0986	4.0240	30
35	26.5871	16.2872	12.5516	10.5813	9.3510	8.5039	7.8823	7.4052	7.0265	6.7180	6.2447	5.7559	5.2476	4.9308	4.7135	4.4335	4.2603	4.1423	4.0220	3.8992	3.7370	3.6258	3.5521	
40	25.5323	15.5656	11.9543	10.0502	8.8611	8.0422	7.4411	6.9795	6.6130	6.3144	5.8557	5.3816	4.8878	4.5792	4.3672	4.0935	3.9236	3.8077	3.6893	3.5681	3.4074	3.2968	3.2233	
45	24.7498	15.0323	11.5140	9.6592	8.5009	7.7030	7.1173	6.6673	6.3099	6.0185	5.5709	5.1077	4.6245	4.3220	4.1139	3.8445	3.6771	3.5625	3.4453	3.3250	3.1651	3.0545	2.9808	
50	24.1465	14.6223	11.1762	9.3597	8.2252	7.4437	6.8697	6.4288	6.0784	5.7927	5.3535	4.8987	4.4237	4.1259	3.9207	3.6546	3.4889	3.3753	3.2588	3.1390	2.9793	2.8685	2.7943	50
60	23.2777	14.0340	10.6923	8.9312	7.8313	7.0734	6.5166	6.0887	5.7485	5.4710	5.0441	4.6015	4.1381	3.8470	3.6458	3.3842	3.2206	3.1082	2.9925	2.8731	2.7129	2.6010	2.5256	
70	22.6826	13.6323	10.3627	8.6399	7.5637	6.8221	6.2772	5.8582	5.5250	5.2531	4.8347	4.4003	3.9450	3.6583	3.4598	3.2011	3.0388	2.9269	2.8115	2.6920	2.5308	2.4174	2.3405	
80	22.2496	13.3409	10.1238	8.4289	7.3702	6.6405	6.1042	5.6918	5.3637	5.0960	4.6836	4.2553	3.8058	3.5222	3.3256	3.0689	2.9074	2.7958	2.6805	2.5606	2.3982	2.2832	2.2048	
90	21.9205	13.1197	9.9428	8.2693	7.2238	6.5032	5.9735	5.5660	5.2419	4.9772	4.5696	4.1459	3.7007	3.4195	3.2243	2.9690	2.8080	2.6965	2.5811	2.4609	2.2972	2.1806	2.1006	
100	21.6620	12.9463	9.8010	8.1442	7.1092	6.3957	5.8712	5.4677	5.1466	4.8844	4.4804	4.0604	3.6186	3.3393	3.1452	2.8908	2.7302	2.6188	2.5032	2.3825	2.2176	2.0994	2.0178	100
125	21.2069	12.6415	9.5521	7.9250	6.9084	6.2076	5.6922	5.2956	4.9800	4.7221	4.3246	3.9109	3.4751	3.1990	3.0067	2.7540	2.5938	2.4824	2.3663	2.2445	2.0765	1.9547	1.8694	
150	20.9107	12.4436	9.3907	7.7829	6.7784	6.0858	5.5764	5.1843	4.8723	4.6172	4.2239	3.8143	3.3824	3.1084	2.9172	2.6655	2.5055	2.3939	2.2773	2.1544	1.9838	1.8587	1.7702	
175	20.7025	12.3047	9.2775	7.6833	6.6873	6.0005	5.4953	5.1065	4.7969	4.5439	4.1535	3.7468	3.3176	3.0450	2.8546	2.6035	2.4435	2.3317	2.2147	2.0909	1.9181	1.7901	1.6986	
200	20.5483	12.2018	9.1937	7.6097	6.6200	5.9375	5.4354	5.0490	4.7412	4.4897	4.1015	3.6970	3.2698	2.9982	2.8083	2.5577	2.3977	2.2857	2.1683	2.0437	1.8690	1.7385	1.6443	
250	20.3350	12.0598	9.0781	7.5081	6.5271	5.8506	5.3529	4.9697	4.6645	4.4150	4.0299	3.6283	3.2039	2.9337	2.7446	2.4945	2.3344	2.2221	2.1040	1.9782	1.8004	1.6658	1.5667	250
300	20.1944	11.9663	9.0021	7.4413	6.4661	5.7935	5.2986	4.9176	4.6141	4.3659	3.9829	3.5833	3.1606	2.8913	2.7027	2.4529	2.2928	2.1802	2.0616	1.9349	1.7546	1.6167	1.5137	
350	20.0949	11.9001	8.9483	7.3941	6.4229	5.7531	5.2603	4.8808	4.5785	4.3313	3.9497	3.5514	3.1300	2.8614	2.6731	2.4235	2.2633	2.1505	2.0315	1.9041	1.7219	1.5813	1.4749	
400	20.0206	11.8507	8.9082	7.3589	6.3908	5.7231	5.2317	4.8534	4.5520	4.3055	3.9249	3.5277	3.1073	2.8391	2.6511	2.4016	2.2413	2.1284	2.0090	1.8811	1.6973	1.5545	1.4451	
450	19.9632	11.8126	8.8771	7.3316	6.3659	5.6998	5.2097	4.8322	4.5315	4.2856	3.9058	3.5094	3.0897	2.8219	2.6341	2.3847	2.2243	2.1113	1.9916	1.8632	1.6782	1.5334	1.4214	
500	19.9173	11.7821	8.8524	7.3099	6.3461	5.6813	5.1921	4.8153	4.5152	4.2697	3.8906	3.4948	3.0757	2.8082	2.6205	2.3712	2.2108	2.0976	1.9777	1.8489	1.6628	1.5165	1.4022	500
600	19.8489	11.7367	8.8155	7.2776	6.3166	5.6537	5.1658	4.7901	4.4908	4.4260	3.8679	3.4730	3.0548	2.7877	2.6002	2.3511	2.1906	2.0772	1.9570	1.8275	1.6398	1.4908	1.3726	
700	19.8002	11.7044	8.7893	7.2545	6.2955	5.6340	5.1472	4.7722	4.4735	4.2291	3.8517	3.4576	3.0399	2.7732	2.5859	2.3367	2.1762	2.0626	1.9422	1.8122	1.6232	1.4722	1.3509	
800	19.7638	11.6802	8.7697	7.2373	6.2798	5.6193	5.1333	4.7589	4.4606	4.2165	3.8397	3.4460	3.0289	2.7623	2.5751	2.3260	2.1654	2.0518	1.9311	1.8008	1.6108	1.4582	1.3342	
900	19.7355	11.6615	8.7544	7.2240	6.2677	5.6079	5.1224	4.7485	4.4505	4.2068	3.8303	3.4371	3.0202	2.7539	2.5668	2.3177	2.1570	2.0433	1.9225	1.7919	1.6011	1.4471	1.3210	
1,000	19.7129	11.6465	8.7423	7.2133	6.2579	5.5989	5.1138	4.7402	4.4425	4.1990	3.8228	3.4299	3.0134	2.7472	2.5601	2.3111	2.1504	2.0366	1.9156	1.7848	1.5934	1.4383	1.3102	1,000
2,000	19.6118	11.5795	8.6879	7.1656	6.2144	5.5582	5.0752	4.7032	4.4067	4.1641	3.7894	3.3979	2.9827	2.7171	2.5303	2.2814	2.1205	2.0064	1.8848	1.7529	1.5583	1.3977	1.2593	
3,000	19.5783	11.5572	8.6698	7.1498	6.2000	5.5447	5.0624	4.6909	4.3948	4.1526	3.7784	3.3873	2.9725	2.7071	2.5204	2.2716	2.1106	1.9964	1.8746	1.7422	1.5465	1.3839	1.2411	
4,000	19.5615	11.5461	8.6608	7.1419	6.1928	5.5380	5.0560	4.6848	4.3889	4.1468	3.7729	3.3820	2.9674	2.7021	2.5155	2.2667	2.1056	1.9913	1.8695	1.7369	1.5406	1.3769	1.2318	
5,000	19.5515	11.5395	8.6555	7.1372	6.1885	5.5339	5.0522	4.6811	4.3853	4.1434	3.7695	3.3788	2.9644	2.6992	2.5126	2.2637	2.1027	1.9883	1.8664	1.7337	1.5371	1.3727	1.2261	
7,500	19.5381	11.5306	8.6483	7.1309	6.1827	5.5286	5.0471	4.6762	4.3806	4.1388	3.7651	3.3746	2.9603	2.6952	2.5086	2.2598	2.0987	1.9843	1.8623	1.7295	1.5323	1.3670	1.2183	
10,000	19.5314	11.5262	8.6447	7.1277	6.1798	5.5259	5.0446	4.6738	4.3783	4.1365	3.7629	3.3725	2.9583	2.6932	2.5067	2.2578	2.0967	1.9823	1.8603	1.7274	1.5300	1.3642	1.2144	10,000
	1	2	3	4	5	6	7	8	9	10	12	15	20	25	30	40	50	60	75	100	175	350	1,000	

F_{ν_1,ν_2} .99999