

Table entry for p is the critical value F^* with probability p lying to its right.

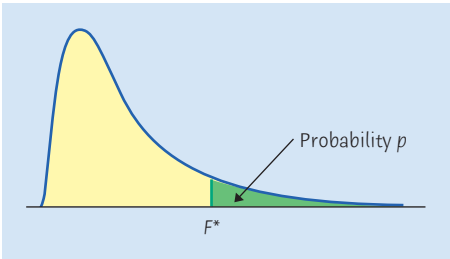


TABLE F		F distribution critical values							
p		Degrees of freedom in the numerator							
		1	2	3	4	5	6	7	8
1	.100	39.86	49.50	53.59	55.83	57.24	58.20	58.91	59.44
	.050	161.45	199.50	215.71	224.58	230.16	233.99	236.77	238.88
	.025	647.79	799.50	864.16	899.58	921.85	937.11	948.22	956.66
	.010	4052.20	4999.50	5403.40	5624.60	5763.60	5859	5928.40	5981.10
	.001	405284.00	500000.00	540379.00	562500.00	576405.00	585937.00	592873.00	598144.00
2	.100	8.53	9.00	9.16	9.24	9.29	9.33	.35	9.37
	.050	18.51	19.00	19.16	19.25	19.30	19.33	19.35	19.37
	.025	38.51	39.00	39.17	39.25	39.30	39.33	39.36	39.37
	.010	98.50	99.00	99.17	99.25	99.30	99.33	99.36	99.37
	.001	998.50	999.00	999.17	999.25	999.30	999.33	999.36	999.37
3	.100	5.54	5.46	5.39	5.34	5.31	5.28	5.27	5.25
	.050	10.13	9.55	9.28	9.12	9.01	8.94	8.89	8.85
	.025	17.44	16.04	15.44	15.10	14.88	14.73	14.62	14.54
	.010	34.12	30.82	29.46	28.71	28.24	27.91	27.67	27.49
	.001	167.03	148.50	141.11	137.10	134.58	132.85	131.58	130.62
4	.100	4.54	4.32	4.19	4.11	4.05	4.01	3.98	3.95
	.050	7.71	6.94	6.59	6.39	6.26	6.16	6.09	6.04
	.025	12.22	10.65	9.98	9.60	9.36	9.20	9.07	8.98
	.010	21.20	18.00	16.69	15.98	15.52	15.21	14.98	14.80
	.001	74.14	61.25	56.18	53.44	51.71	50.53	49.66	49.00
5	.100	4.06	3.78	3.62	3.52	3.45	3.40	3.37	3.34
	.050	6.61	5.79	5.41	5.19	5.05	4.95	4.88	4.82
	.025	10.01	8.43	7.76	7.39	7.15	6.98	6.85	6.76
	.010	16.26	13.27	12.06	11.39	10.97	10.67	10.46	10.29
	.001	47.18	37.12	33.20	31.09	29.75	28.83	28.16	27.65
6	.100	3.78	3.46	3.29	3.18	3.11	3.05	3.01	2.98
	.050	5.99	5.14	4.76	4.53	4.39	4.28	4.21	4.15
	.025	8.81	7.26	6.60	6.23	5.99	5.82	5.70	5.60
	.010	13.75	10.92	9.78	9.15	8.75	8.47	8.26	8.10
	.001	35.51	27.00	23.70	21.92	20.80	20.03	19.46	19.03
7	.100	3.59	3.26	3.07	2.96	2.88	2.83	2.78	2.75
	.050	5.59	4.74	4.35	4.12	3.97	3.87	3.79	3.73
	.025	8.07	6.54	5.89	5.52	5.29	5.12	4.99	4.90
	.010	12.25	9.55	8.45	7.85	7.46	7.19	6.99	6.84
	.001	29.25	21.69	18.77	17.20	16.21	15.52	15.02	14.63
8	.100	3.46	3.11	2.92	2.81	2.73	2.67	2.62	2.59
	.050	5.32	4.46	4.07	3.84	3.69	3.58	3.50	3.44
	.025	7.57	6.06	5.42	5.05	4.82	4.65	4.53	4.43
	.010	11.26	8.65	7.59	7.01	6.63	6.37	6.18	6.03
	.001	25.41	18.49	15.83	14.39	13.48	12.86	12.40	12.05

(continued)

Table entry for p is the critical value F^* with probability p lying to its right.

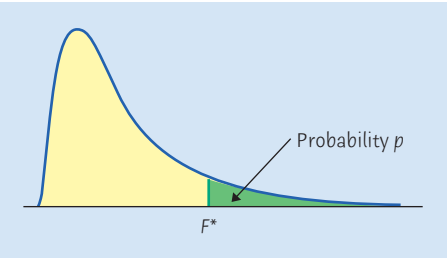


TABLE F		F distribution critical values (continued)							
		Degrees of freedom in the numerator							
	p	9	10	15	20	30	60	120	1000
Degrees of freedom in the denominator	1	.100	59.86	60.19	61.22	61.74	62.26	62.79	63.30
		.050	240.54	241.88	245.95	248.01	250.10	252.20	254.19
		.025	963.28	968.63	984.87	993.10	1001.40	1009.80	1017.70
		.010	6022.50	6055.80	6157.30	6208.70	6260.60	63130	6362.70
		.001	602284.00	605621.00	615764.00	620908.00	626099.00	631337.00	636301.00
	2	.100	9.38	9.39	9.42	9.44	9.46	9.47	9.49
		.050	19.38	19.40	19.43	19.45	19.46	19.48	19.49
		.025	39.39	39.40	39.43	39.45	39.46	39.48	39.50
		.010	99.39	99.40	99.43	99.45	99.47	99.48	99.50
		.001	999.39	999.40	999.43	999.45	999.47	999.48	999.50
	3	.100	5.24	5.23	5.20	5.18	5.17	5.15	5.13
		.050	8.81	8.79	8.70	8.66	8.62	8.57	8.53
		.025	14.47	14.42	14.25	14.17	14.08	13.99	13.91
		.010	27.35	27.23	26.87	26.69	26.50	26.32	26.14
		.001	129.86	129.25	127.37	126.42	125.45	124.47	123.53
	4	.100	3.94	3.92	3.87	3.84	3.82	3.79	3.76
		.050	6.00	5.96	5.86	5.80	5.75	5.69	5.63
		.025	8.90	8.84	8.66	8.56	8.46	8.36	8.26
		.010	14.66	14.55	14.20	14.02	13.84	13.65	13.47
		.001	48.47	48.05	46.76	46.10	45.43	44.75	44.09
	5	.100	3.32	3.30	3.24	3.21	3.17	3.14	3.11
		.050	4.77	4.74	4.62	4.56	4.50	4.43	4.37
		.025	6.68	6.62	6.43	6.33	6.23	6.12	6.02
		.010	10.16	10.05	9.72	9.55	9.38	9.20	9.03
		.001	27.24	26.92	25.91	25.39	24.87	24.33	23.82
	6	.100	2.96	2.94	2.87	2.84	2.80	2.76	2.72
		.050	4.10	4.06	3.94	3.87	3.81	3.74	3.67
		.025	5.52	5.46	5.27	5.17	5.07	4.96	4.86
		.010	7.98	7.87	7.56	7.40	7.23	7.06	6.89
		.001	18.69	18.41	17.56	17.12	16.67	16.21	15.77
	7	.100	2.72	2.70	2.63	2.59	2.56	2.51	2.47
		.050	3.68	3.64	3.51	3.44	3.38	3.30	3.23
		.025	4.82	4.76	4.57	4.47	4.36	4.25	4.15
		.010	6.72	6.62	6.31	6.16	5.99	5.82	5.66
		.001	14.33	14.08	13.32	12.93	12.53	12.12	11.72
	8	.100	2.56	2.54	2.46	2.42	2.38	2.34	2.30
		.050	3.39	3.35	3.22	3.15	3.08	3.01	2.93
		.025	4.36	4.30	4.10	4.00	3.89	3.78	3.68
		.010	5.91	5.81	5.52	5.36	5.20	5.03	4.87
		.001	11.77	11.54	10.84	10.48	10.11	9.73	9.36

TABLE F		F distribution critical values (continued)							
	p	Degrees of freedom in the numerator							
		1	2	3	4	5	6	7	8
9	.100	3.36	3.01	2.81	2.69	2.61	2.55	2.51	2.47
	.050	5.12	4.26	3.86	3.63	3.48	3.37	3.29	3.23
	.025	7.21	5.71	5.08	4.72	4.48	4.32	4.20	4.10
	.010	10.56	8.02	6.99	6.42	6.06	5.80	5.61	5.47
	.001	22.86	16.39	13.90	12.56	11.71	11.13	10.70	10.37
10	.100	3.29	2.92	2.73	2.61	2.52	2.46	2.41	2.38
	.050	4.96	4.10	3.71	3.48	3.33	3.22	3.14	3.07
	.025	6.94	5.46	4.83	4.47	4.24	4.07	3.95	3.85
	.010	10.04	7.56	6.55	5.99	5.64	5.39	5.20	5.06
	.001	21.04	14.91	12.55	11.28	10.48	9.93	9.52	9.20
12	.100	3.18	2.81	2.61	2.48	2.39	2.33	2.28	2.24
	.050	4.75	3.89	3.49	3.26	3.11	3.00	2.91	2.85
	.025	6.55	5.10	4.47	4.12	3.89	3.73	3.61	3.51
	.010	9.33	6.93	5.95	5.41	5.06	4.82	4.64	4.50
	.001	18.64	12.97	10.80	9.63	8.89	8.38	8.00	7.71
15	.100	3.07	2.70	2.49	2.36	2.27	2.21	2.16	2.12
	.050	4.54	3.68	3.29	3.06	2.90	2.79	2.71	2.64
	.025	6.20	4.77	4.15	3.80	3.58	3.41	3.29	3.20
	.010	8.68	6.36	5.42	4.89	4.56	4.32	4.14	4.00
	.001	16.59	11.34	9.34	8.25	7.57	7.09	6.74	6.47
20	.100	2.97	2.59	2.38	2.25	2.16	2.09	2.04	2.00
	.050	4.35	3.49	3.10	2.87	2.71	2.60	2.51	2.45
	.025	5.87	4.46	3.86	3.51	3.29	3.13	3.01	2.91
	.010	8.10	5.85	4.94	4.43	4.10	3.87	3.70	3.56
	.001	14.82	9.95	8.10	7.10	6.46	6.02	5.69	5.44
25	.100	2.92	2.53	2.32	2.18	2.09	2.02	1.97	1.93
	.050	4.24	3.39	2.99	2.76	2.60	2.49	2.40	2.34
	.025	5.69	4.29	3.69	3.35	3.13	2.97	2.85	2.75
	.010	7.77	5.57	4.68	4.18	3.85	3.63	3.46	3.32
	.001	13.88	9.22	7.45	6.49	5.89	5.46	5.15	4.91
50	.100	2.81	2.41	2.20	2.06	1.97	1.90	1.84	1.80
	.050	4.03	3.18	2.79	2.56	2.40	2.29	2.20	2.13
	.025	5.34	3.97	3.39	3.05	2.83	2.67	2.55	2.46
	.010	7.17	5.06	4.20	3.72	3.41	3.19	3.02	2.89
	.001	12.22	7.96	6.34	5.46	4.90	4.51	4.22	4.00
100	.100	2.76	2.36	2.14	2.00	1.91	1.83	1.78	1.73
	.050	3.94	3.09	2.70	2.46	2.31	2.19	2.10	2.03
	.025	5.18	3.83	3.25	2.92	2.70	2.54	2.42	2.32
	.010	6.90	4.82	3.98	3.51	3.21	2.99	2.82	2.69
	.001	11.50	7.41	5.86	5.02	4.48	4.11	3.83	3.61
200	.100	2.73	2.33	2.11	1.97	1.88	1.80	1.75	1.70
	.050	3.89	3.04	2.65	2.42	2.26	2.14	2.06	1.98
	.025	5.10	3.76	3.18	2.85	2.63	2.47	2.35	2.26
	.010	6.76	4.71	3.88	3.41	3.11	2.89	2.73	2.60
	.001	11.15	7.15	5.63	4.81	4.29	3.92	3.65	3.43
1000	.100	2.71	2.31	2.09	1.95	1.85	1.78	1.72	1.68
	.050	3.85	3.00	2.61	2.38	2.22	2.11	2.02	1.95
	.025	5.04	3.70	3.13	2.80	2.58	2.42	2.30	2.20
	.010	6.66	4.63	3.80	3.34	3.04	2.82	2.66	2.53
	.001	10.89	6.96	5.46	4.65	4.14	3.78	3.51	3.30

TABLE F F distribution critical values (continued)									
		Degrees of freedom in the numerator							
		p	9	10	15	20	30	60	1000
9	.100		2.44	2.42	2.34	2.30	2.25	2.21	2.16
	.050		3.18	3.14	3.01	2.94	2.86	2.79	2.71
	.025		4.03	3.96	3.77	3.67	3.56	3.45	3.34
	.010		5.35	5.26	4.96	4.81	4.65	4.48	4.32
	.001		10.11	9.89	9.24	8.90	8.55	8.19	7.84
10	.100		2.35	2.32	2.24	2.20	2.16	2.11	2.06
	.050		3.02	2.98	2.85	2.77	2.70	2.62	2.54
	.025		3.78	3.72	3.52	3.42	3.31	3.20	3.09
	.010		4.94	4.85	4.56	4.41	4.25	4.08	3.92
	.001		8.96	8.75	8.13	7.80	7.47	7.12	6.78
12	.100		2.21	2.19	2.10	2.06	2.01	1.96	1.91
	.050		2.80	2.75	2.62	2.54	2.47	2.38	2.30
	.025		3.44	3.37	3.18	3.07	2.96	2.85	2.73
	.010		4.39	4.30	4.01	3.86	3.70	3.54	3.37
	.001		7.48	7.29	6.71	6.40	6.09	5.76	5.44
15	.100		2.09	2.06	1.97	1.92	1.87	1.82	1.76
	.050		2.59	2.54	2.40	2.33	2.25	2.16	2.07
	.025		3.12	3.06	2.86	2.76	2.64	2.52	2.40
	.010		3.89	3.80	3.52	3.37	3.21	3.05	2.88
	.001		6.26	6.08	5.54	5.25	4.95	4.64	4.33
Degrees of freedom in the denominator	20	.100	1.96	1.94	1.84	1.79	1.74	1.68	1.61
		.050	2.39	2.35	2.20	2.12	2.04	1.95	1.85
		.025	2.84	2.77	2.57	2.46	2.35	2.22	2.09
		.010	3.46	3.37	3.09	2.94	2.78	2.61	2.43
		.001	5.24	5.08	4.56	4.29	4.00	3.70	3.40
	25	.100	1.89	1.87	1.77	1.72	1.66	1.59	1.52
		.050	2.28	2.24	2.09	2.01	1.92	1.82	1.72
		.025	2.68	2.61	2.41	2.30	2.18	2.05	1.91
		.010	3.22	3.13	2.85	2.70	2.54	2.36	2.18
		.001	4.71	4.56	4.06	3.79	3.52	3.22	2.91
	50	.100	1.76	1.73	1.63	1.57	1.50	1.42	1.33
		.050	2.07	2.03	1.87	1.78	1.69	1.58	1.45
		.025	2.38	2.32	2.11	1.99	1.87	1.72	1.56
		.010	2.78	2.70	2.42	2.27	2.10	1.91	1.70
		.001	3.82	3.67	3.20	2.95	2.68	2.38	2.05
	100	.100	1.69	1.66	1.56	1.49	1.42	1.34	1.22
		.050	1.97	1.93	1.77	1.68	1.57	1.45	1.30
		.025	2.24	2.18	1.97	1.85	1.71	1.56	1.36
		.010	2.59	2.50	2.22	2.07	1.89	1.69	1.45
		.001	3.44	3.30	2.84	2.59	2.32	2.01	1.64
	200	.100	1.66	1.63	1.52	1.46	1.38	1.29	1.16
		.050	1.93	1.88	1.72	1.62	1.52	1.39	1.21
		.025	2.18	2.11	1.90	1.78	1.64	1.47	1.25
		.010	2.50	2.41	2.13	1.97	1.79	1.58	1.30
		.001	3.26	3.12	2.67	2.42	2.15	1.83	1.43
	1000	.100	1.64	1.61	1.49	1.43	1.35	1.25	1.08
		.050	1.89	1.84	1.68	1.58	1.47	1.33	1.11
		.025	2.13	2.06	1.85	1.72	1.58	1.41	1.13
		.010	2.43	2.34	2.06	1.90	1.72	1.50	1.16
		.001	3.13	2.99	2.54	2.30	2.02	1.69	1.22