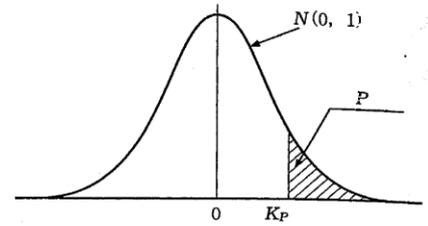


付表

付表1 正規分布表



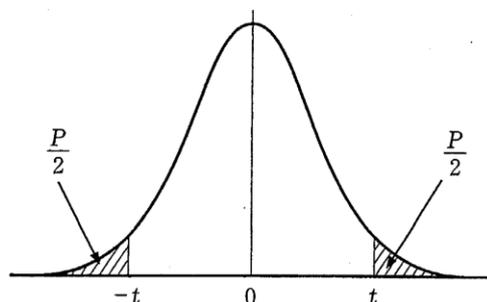
(I) K_p から P を求める表

K_p	*=0	1	2	3	4	5	6	7	8	9
0.0*	.5000	.4960	.4920	.4880	.4840	.4801	.4761	.4721	.4681	.4641
0.1*	.4602	.4562	.4522	.4483	.4443	.4404	.4364	.4325	.4286	.4247
0.2*	.4207	.4168	.4129	.4090	.4052	.4013	.3974	.3936	.3897	.3859
0.3*	.3821	.3783	.3745	.3707	.3669	.3632	.3594	.3557	.3520	.3483
0.4*	.3446	.3409	.3372	.3336	.3300	.3264	.3228	.3192	.3156	.3121
0.5*	.3085	.3050	.3015	.2981	.2946	.2912	.2877	.2843	.2810	.2776
0.6*	.2743	.2709	.2676	.2643	.2611	.2578	.2546	.2514	.2483	.2451
0.7*	.2420	.2389	.2358	.2327	.2296	.2266	.2236	.2206	.2177	.2148
0.8*	.2119	.2090	.2061	.2033	.2005	.1977	.1949	.1922	.1894	.1867
0.9*	.1841	.1814	.1788	.1762	.1736	.1711	.1685	.1660	.1635	.1611
1.0*	.1587	.1562	.1539	.1515	.1492	.1469	.1446	.1423	.1401	.1379
1.1*	.1357	.1335	.1314	.1292	.1271	.1251	.1230	.1210	.1190	.1170
1.2*	.1151	.1131	.1112	.1093	.1075	.1056	.1038	.1020	.1003	.0985
1.3*	.0968	.0951	.0934	.0918	.0901	.0885	.0869	.0853	.0838	.0823
1.4*	.0808	.0793	.0778	.0764	.0749	.0735	.0721	.0708	.0694	.0681
1.5*	.0668	.0655	.0643	.0630	.0618	.0606	.0594	.0582	.0571	.0559
1.6*	.0548	.0537	.0526	.0516	.0505	.0495	.0485	.0475	.0465	.0455
1.7*	.0446	.0436	.0427	.0418	.0409	.0401	.0392	.0384	.0375	.0367
1.8*	.0359	.0351	.0344	.0336	.0329	.0322	.0314	.0307	.0301	.0294
1.9*	.0287	.0281	.0274	.0268	.0262	.0256	.0250	.0244	.0239	.0233
2.0*	.0228	.0222	.0217	.0212	.0207	.0202	.0197	.0192	.0188	.0183
2.1*	.0179	.0174	.0170	.0166	.0162	.0158	.0154	.0150	.0146	.0143
2.2*	.0139	.0136	.0132	.0129	.0125	.0122	.0119	.0116	.0113	.0110
2.3*	.0107	.0104	.0102	.0099	.0096	.0094	.0091	.0089	.0087	.0084
2.4*	.0082	.0080	.0078	.0075	.0073	.0071	.0069	.0068	.0066	.0064
2.5*	.0062	.0060	.0059	.0057	.0055	.0054	.0052	.0051	.0049	.0048
2.6*	.0047	.0045	.0044	.0043	.0041	.0040	.0039	.0038	.0037	.0036
2.7*	.0035	.0034	.0033	.0032	.0031	.0030	.0029	.0028	.0027	.0026
2.8*	.0026	.0025	.0024	.0023	.0023	.0022	.0021	.0021	.0020	.0019
2.9*	.0019	.0018	.0018	.0017	.0016	.0016	.0015	.0015	.0014	.0014
3.0*	.0013	.0013	.0013	.0012	.0012	.0011	.0011	.0011	.0010	.0010
3.5	.2326E-3									
4.0	.3167E-4									
4.5	.3398E-5									
5.0	.2867E-6									
5.5	.1899E-7									

(II) P から K_p を求める表

P	*=0	1	2	3	4	5	6	7	8	9
0.00*	∞	3.090	2.878	2.748	2.652	2.576	2.512	2.457	2.409	2.366
0.0*	∞	2.326	2.054	1.881	1.751	1.645	1.555	1.476	1.405	1.341
0.1*	1.282	1.227	1.175	1.126	1.080	1.036	.994	.954	.915	.878
0.2*	.842	.806	.772	.739	.706	.674	.643	.613	.583	.553
0.3*	.524	.496	.468	.440	.412	.385	.358	.332	.305	.279
0.4*	.253	.228	.202	.176	.151	.126	.100	.075	.050	.025

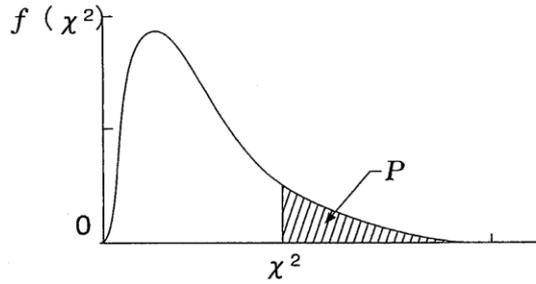
付表2 t表

自由度 ϕ と両側確率 P とから t を求める表

$\phi \backslash P$	0.50	0.40	0.30	0.20	0.10	0.05	0.02	0.01	0.001	$P \backslash \phi$
1	1.000	1.376	1.963	3.078	6.314	12.706	31.821	63.657	636.619	1
2	0.816	1.061	1.386	1.886	2.920	4.303	6.965	9.925	31.599	2
3	0.765	0.978	1.250	1.638	2.353	3.182	4.541	5.841	12.924	3
4	0.741	0.941	1.190	1.533	2.132	2.776	3.747	4.604	8.610	4
5	0.727	0.920	1.156	1.476	2.015	2.571	3.365	4.032	6.869	5
6	0.718	0.906	1.134	1.440	1.943	2.447	3.143	3.707	5.959	6
7	0.711	0.896	1.119	1.415	1.895	2.365	2.998	3.499	5.408	7
8	0.706	0.889	1.108	1.397	1.860	2.306	2.896	3.355	5.041	8
9	0.703	0.883	1.100	1.383	1.833	2.262	2.821	3.250	4.781	9
10	0.700	0.879	1.093	1.372	1.812	2.228	2.764	3.169	4.587	10
11	0.697	0.876	1.088	1.363	1.796	2.201	2.718	3.106	4.437	11
12	0.695	0.873	1.083	1.356	1.782	2.179	2.681	3.055	4.318	12
13	0.694	0.870	1.079	1.350	1.771	2.160	2.650	3.012	4.221	13
14	0.692	0.868	1.076	1.345	1.761	2.145	2.624	2.977	4.140	14
15	0.691	0.866	1.074	1.341	1.753	2.131	2.602	2.947	4.073	15
16	0.690	0.865	1.071	1.337	1.746	2.120	2.583	2.921	4.015	16
17	0.689	0.863	1.069	1.333	1.740	2.110	2.567	2.898	3.965	17
18	0.688	0.862	1.067	1.330	1.734	2.101	2.552	2.878	3.922	18
19	0.688	0.861	1.066	1.328	1.729	2.093	2.539	2.861	3.883	19
20	0.687	0.860	1.064	1.325	1.725	2.086	2.528	2.845	3.850	20
21	0.686	0.859	1.063	1.323	1.721	2.080	2.518	2.831	3.819	21
22	0.686	0.858	1.061	1.321	1.717	2.074	2.508	2.819	3.792	22
23	0.685	0.858	1.060	1.319	1.714	2.069	2.500	2.807	3.768	23
24	0.685	0.857	1.059	1.318	1.711	2.064	2.492	2.797	3.745	24
25	0.684	0.856	1.058	1.316	1.708	2.060	2.485	2.787	3.725	25
26	0.684	0.856	1.058	1.315	1.706	2.056	2.479	2.779	3.707	26
27	0.684	0.855	1.057	1.314	1.703	2.052	2.473	2.771	3.690	27
28	0.683	0.855	1.056	1.313	1.701	2.048	2.467	2.763	3.674	28
29	0.683	0.854	1.055	1.311	1.699	2.045	2.462	2.756	3.659	29
30	0.683	0.854	1.055	1.310	1.697	2.042	2.457	2.750	3.646	30
40	0.681	0.851	1.050	1.303	1.684	2.021	2.423	2.704	3.551	40
60	0.679	0.848	1.046	1.296	1.671	2.000	2.390	2.660	3.460	60
120	0.677	0.845	1.041	1.289	1.658	1.980	2.358	2.617	3.373	120
∞	0.674	0.842	1.036	1.282	1.645	1.960	2.326	2.576	3.291	∞

例: $\phi = 10$ の両側5%点($P = 0.05$)に対する t の値は2.228である。

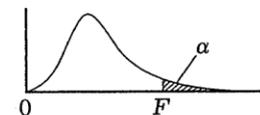
付表3 χ^2 表



自由度 ϕ と上側確率 P とから χ^2 を求める表

$\phi \backslash P$.995	.99	.975	.95	.90	.75	.50	.25	.10	.05	.025	.01	.005	$P \backslash \phi$
1	0.0 ⁴ 393	0.0 ³ 157	0.0 ³ 982	0.0 ² 393	0.0158	0.102	0.455	1.323	2.71	3.84	5.02	6.63	7.88	1
2	0.0100	0.0201	0.0506	0.103	0.211	0.575	1.386	2.77	4.61	5.99	7.38	9.21	10.60	2
3	0.0717	0.115	0.216	0.325	0.584	1.213	2.37	4.11	6.25	7.81	9.35	11.34	12.84	3
4	0.207	0.297	0.484	0.711	1.064	1.923	3.36	5.39	7.78	9.49	11.14	13.28	14.86	4
5	0.412	0.544	0.831	1.145	1.610	2.67	4.35	6.63	9.24	11.07	12.83	15.09	16.75	5
6	0.676	0.872	1.237	1.635	2.20	3.45	5.35	7.84	10.64	12.59	14.45	16.81	18.55	6
7	0.989	1.239	1.690	2.17	2.83	4.25	6.35	9.04	12.02	14.07	16.01	18.48	20.3	7
8	1.344	1.646	2.18	2.73	3.49	5.07	7.34	10.22	13.36	15.51	17.53	20.1	22.0	8
9	1.735	2.09	2.70	3.33	4.17	5.90	8.34	11.39	14.68	16.92	19.02	21.7	23.6	9
10	2.16	2.56	3.25	3.94	4.87	6.74	9.34	12.55	15.99	18.31	20.5	23.2	25.2	10
11	2.60	3.05	3.82	4.57	5.58	7.58	10.34	13.70	17.28	19.68	21.9	24.7	26.8	11
12	3.07	3.57	4.40	5.23	6.30	8.44	11.34	14.85	18.55	21.0	23.3	26.2	28.3	12
13	3.57	4.11	5.01	5.89	7.04	9.30	12.34	15.98	19.81	22.4	24.7	27.7	29.8	13
14	4.07	4.66	5.63	6.57	7.79	10.17	13.34	17.12	21.1	23.7	26.1	29.1	31.3	14
15	4.60	5.23	6.26	7.26	8.55	11.04	14.34	18.25	22.3	25.0	27.5	30.6	32.8	15
16	5.14	5.81	6.91	7.96	9.31	11.91	15.34	19.37	23.5	26.3	28.8	32.0	34.3	16
17	5.70	6.41	7.56	8.67	10.09	12.79	16.34	20.5	24.8	27.6	30.2	33.4	35.7	17
18	6.26	7.01	8.23	9.39	10.86	13.68	17.34	21.6	26.0	28.9	31.5	34.8	37.2	18
19	6.84	7.63	8.91	10.12	11.65	14.56	18.34	22.7	27.2	30.1	32.9	36.2	38.6	19
20	7.43	8.26	9.59	10.85	12.44	15.45	19.34	23.8	28.4	31.4	34.2	37.6	40.0	20
21	8.03	8.90	10.28	11.59	13.24	16.34	20.3	24.9	29.6	32.7	35.5	38.9	41.4	21
22	8.64	9.54	10.98	12.34	14.04	17.24	21.3	26.0	30.8	33.9	36.8	40.3	42.8	22
23	9.26	10.20	11.69	13.09	14.85	18.14	22.3	27.1	32.0	35.2	38.1	41.6	44.2	23
24	9.89	10.86	12.40	13.85	15.66	19.04	23.3	28.2	33.2	36.4	39.4	43.0	45.6	24
25	10.52	11.52	13.12	14.61	16.47	19.94	24.3	29.3	34.4	37.7	40.6	44.3	46.9	25
26	11.16	12.20	13.84	15.38	17.29	20.8	25.3	30.4	35.6	38.9	41.9	45.6	48.3	26
27	11.81	12.88	14.57	16.15	18.11	21.7	26.3	31.5	36.7	40.1	43.2	47.0	49.6	27
28	12.46	13.56	15.31	16.93	18.94	22.7	27.3	32.6	37.9	41.3	44.5	48.3	51.0	28
29	13.12	14.26	16.05	17.71	19.77	23.6	28.3	33.7	39.1	42.6	45.7	49.6	52.3	29
30	13.79	14.95	16.79	18.49	20.6	24.5	29.3	34.8	40.3	43.8	47.0	50.9	53.7	30
40	20.7	22.2	24.4	26.5	29.1	33.7	39.3	45.6	51.8	55.8	59.3	63.7	66.8	40
50	28.0	29.7	32.4	34.8	37.7	42.9	49.3	56.3	63.2	67.5	71.4	76.2	79.5	50
60	35.5	37.5	40.5	43.2	46.5	52.3	59.3	67.0	74.4	79.1	83.3	88.4	92.0	60
70	43.3	45.4	48.8	51.7	55.3	61.7	69.3	77.6	85.5	90.5	95.0	100.4	104.2	70
80	51.2	53.5	57.2	60.4	64.3	71.1	79.3	88.1	96.6	101.9	106.6	112.3	116.3	80
90	59.2	61.8	65.6	69.1	73.3	80.6	89.3	98.6	107.6	113.1	118.1	124.1	128.3	90
100	67.3	70.1	74.2	77.9	82.4	90.1	99.3	109.1	118.5	124.3	129.6	135.9	140.2	100

付表4 F表 (0.05 0.01)



$F(\phi_1, \phi_2; \alpha)$ $\alpha = 0.05$ (細字) $\alpha = 0.01$ (太字)
 $\phi_1 =$ 分子の自由度 $\phi_2 =$ 分母の自由度

$\phi_2 \backslash \phi_1$	1	2	3	4	5	6	7	8	9	10	12	15	20	24	30	40	60	120	∞	$\phi_1 \backslash \phi_2$
1	161. 4052.	200. 5000.	216. 5403.	225. 5625.	230. 5764.	234. 5859.	237. 5928.	239. 5981.	241. 6022.	242. 6056.	244. 6106.	246. 6157.	248. 6209.	249. 6235.	250. 6261.	251. 6287.	252. 6313.	253. 6339.	254. 6366.	1
2	18.5 98.5	19.0 99.0	19.2 99.2	19.2 99.2	19.3 99.3	19.3 99.3	19.4 99.4	19.5 99.5	19.5 99.5	19.5 99.5	19.5 99.5	19.5 99.5	19.5 99.5	2						
3	10.1 34.1	9.55 30.8	9.28 29.5	9.12 28.7	9.01 28.2	8.94 27.9	8.89 27.7	8.85 27.5	8.81 27.3	8.79 27.2	8.74 27.1	8.70 26.9	8.66 26.7	8.64 26.6	8.62 26.5	8.59 26.4	8.57 26.3	8.55 26.2	8.53 26.1	3
4	7.71 21.2	6.94 18.0	6.59 16.7	6.39 16.0	6.26 15.5	6.16 15.2	6.09 15.0	6.04 14.8	6.00 14.7	5.96 14.5	5.91 14.4	5.86 14.2	5.80 14.0	5.77 13.9	5.75 13.8	5.72 13.7	5.69 13.7	5.66 13.6	5.63 13.5	4
5	6.61 16.3	5.79 13.3	5.41 12.1	5.19 11.4	5.05 11.0	4.95 10.7	4.88 10.5	4.82 10.3	4.77 10.2	4.74 10.1	4.68 9.89	4.62 9.72	4.56 9.55	4.53 9.47	4.50 9.38	4.46 9.29	4.43 9.20	4.40 9.11	4.36 9.02	5
6	5.99 13.7	5.14 10.9	4.76 9.78	4.53 9.15	4.39 8.75	4.28 8.47	4.21 8.26	4.15 8.10	4.10 7.98	4.06 7.87	4.00 7.72	3.94 7.56	3.87 7.40	3.84 7.31	3.81 7.23	3.77 7.14	3.74 7.06	3.70 6.97	3.67 6.88	6
7	5.59 12.2	4.74 9.55	4.35 8.45	4.12 7.85	3.97 7.46	3.87 7.19	3.79 6.99	3.73 6.84	3.68 6.72	3.64 6.62	3.57 6.47	3.51 6.31	3.44 6.16	3.41 6.07	3.38 5.99	3.34 5.91	3.30 5.82	3.27 5.74	3.23 5.65	7
8	5.32 11.3	4.46 8.65	4.07 7.59	3.84 7.01	3.69 6.63	3.58 6.37	3.50 6.18	3.44 6.03	3.39 5.91	3.35 5.81	3.28 5.67	3.22 5.52	3.15 5.36	3.12 5.28	3.08 5.20	3.04 5.12	3.01 5.03	2.97 4.95	2.93 4.86	8
9	5.12 10.6	4.26 8.02	3.86 6.99	3.63 6.42	3.48 6.06	3.37 5.80	3.29 5.61	3.23 5.47	3.18 5.35	3.14 5.26	3.07 5.11	3.01 4.96	2.94 4.81	2.90 4.73	2.86 4.65	2.83 4.57	2.79 4.48	2.75 4.40	2.71 4.31	9
10	4.96 10.0	4.10 7.56	3.71 6.55	3.48 5.99	3.33 5.64	3.22 5.39	3.14 5.20	3.07 5.06	3.02 4.94	2.98 4.85	2.91 4.71	2.85 4.56	2.77 4.41	2.74 4.33	2.70 4.25	2.66 4.17	2.62 4.08	2.58 4.00	2.54 3.91	10
11	4.84 9.65	3.98 7.21	3.59 6.22	3.36 5.67	3.20 5.32	3.09 5.07	3.01 4.89	2.95 4.74	2.90 4.63	2.85 4.54	2.79 4.40	2.72 4.25	2.65 4.10	2.61 4.02	2.57 3.94	2.53 3.86	2.49 3.78	2.45 3.69	2.40 3.60	11
12	4.75 9.33	3.89 6.93	3.49 5.95	3.26 5.41	3.11 5.06	3.00 4.82	2.91 4.64	2.85 4.50	2.80 4.39	2.75 4.30	2.69 4.16	2.62 4.01	2.54 3.86	2.51 3.78	2.47 3.70	2.43 3.62	2.38 3.54	2.34 3.45	2.30 3.36	12
13	4.67 9.07	3.81 6.70	3.41 5.74	3.18 5.21	3.03 4.86	2.92 4.62	2.83 4.44	2.77 4.30	2.71 4.19	2.67 4.10	2.60 3.96	2.53 3.82	2.46 3.66	2.42 3.59	2.38 3.51	2.34 3.43	2.30 3.34	2.25 3.25	2.21 3.17	13
14	4.60 8.86	3.74 6.51	3.34 5.56	3.11 5.04	2.96 4.69	2.85 4.46	2.76 4.28	2.70 4.14	2.65 4.03	2.60 3.94	2.53 3.80	2.46 3.66	2.39 3.51	2.35 3.43	2.31 3.35	2.27 3.27	2.22 3.18	2.18 3.09	2.13 3.00	14
15	4.54 8.68	3.68 6.36	3.29 5.42	3.06 4.89	2.90 4.56	2.79 4.32	2.71 4.14	2.64 4.00	2.59 3.89	2.54 3.80	2.48 3.67	2.40 3.52	2.33 3.37	2.29 3.29	2.25 3.21	2.20 3.13	2.16 3.05	2.11 2.96	2.07 2.87	15
$\phi_2 \backslash \phi_1$	1	2	3	4	5	6	7	8	9	10	12	15	20	24	30	40	60	120	∞	$\phi_1 \backslash \phi_2$

例 $\phi_1 = 5, \phi_2 = 10$ に対する $F(\phi_1, \phi_2; 0.05)$ の値は、 $\phi_1 = 5$ の列と $\phi_2 = 10$ の行の交わる点の上段の値(細字)3.33で与えられる。

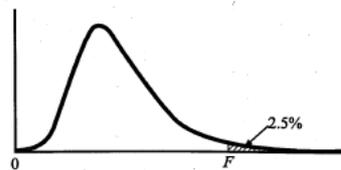
付表4 (つづき)

$\phi_2 \backslash \phi_1$	1	2	3	4	5	6	7	8	9	10	12	15	20	24	30	40	60	120	∞	$\phi_1 \backslash \phi_2$
16	4.49	3.63	3.24	3.01	2.85	2.74	2.66	2.59	2.54	2.49	2.42	2.35	2.28	2.24	2.19	2.15	2.11	2.06	2.01	16
	8.53	6.23	5.29	4.77	4.44	4.20	4.03	3.89	3.78	3.69	3.55	3.41	3.26	3.18	3.10	3.02	2.93	2.84	2.75	
17	4.45	3.59	3.20	2.96	2.81	2.70	2.61	2.55	2.49	2.45	2.38	2.31	2.23	2.19	2.15	2.10	2.06	2.01	1.96	17
	8.40	6.11	5.18	4.67	4.34	4.10	3.93	3.79	3.68	3.59	3.46	3.31	3.16	3.08	3.00	2.92	2.83	2.75	2.65	
18	4.41	3.55	3.16	2.93	2.77	2.66	2.58	2.51	2.46	2.41	2.34	2.27	2.19	2.15	2.11	2.06	2.02	1.97	1.92	18
	8.29	6.01	5.09	4.58	4.25	4.01	3.84	3.71	3.60	3.51	3.37	3.23	3.08	3.00	2.92	2.84	2.75	2.66	2.57	
19	4.38	3.52	3.13	2.90	2.74	2.63	2.54	2.48	2.42	2.38	2.31	2.23	2.16	2.11	2.07	2.03	1.98	1.93	1.88	19
	8.18	5.93	5.01	4.50	4.17	3.94	3.77	3.63	3.52	3.43	3.30	3.15	3.00	2.92	2.84	2.76	2.67	2.58	2.49	
20	4.35	3.49	3.10	2.87	2.71	2.60	2.51	2.45	2.39	2.35	2.28	2.20	2.12	2.08	2.04	1.99	1.95	1.90	1.84	20
	8.10	5.85	4.94	4.43	4.10	3.87	3.70	3.56	3.46	3.37	3.23	3.09	2.94	2.86	2.78	2.69	2.61	2.52	2.42	
21	4.32	3.47	3.07	2.84	2.68	2.57	2.49	2.42	2.37	2.32	2.25	2.18	2.10	2.05	2.01	1.96	1.92	1.87	1.81	21
	8.02	5.78	4.87	4.37	4.04	3.81	3.64	3.51	3.40	3.31	3.17	3.03	2.88	2.80	2.72	2.64	2.55	2.46	2.36	
22	4.30	3.44	3.05	2.82	2.66	2.55	2.46	2.40	2.34	2.30	2.23	2.15	2.07	2.03	1.98	1.94	1.89	1.84	1.78	22
	7.95	5.72	4.82	4.31	3.99	3.76	3.59	3.45	3.35	3.26	3.12	2.98	2.83	2.75	2.67	2.58	2.50	2.40	2.31	
23	4.28	3.42	3.03	2.80	2.64	2.53	2.44	2.37	2.32	2.27	2.20	2.13	2.05	2.01	1.96	1.91	1.86	1.81	1.76	23
	7.88	5.66	4.76	4.26	3.94	3.71	3.54	3.41	3.30	3.21	3.07	2.93	2.78	2.70	2.62	2.54	2.45	2.35	2.26	
24	4.26	3.40	3.01	2.78	2.62	2.51	2.42	2.36	2.30	2.25	2.18	2.11	2.03	1.98	1.94	1.89	1.84	1.79	1.73	24
	7.82	5.61	4.72	4.22	3.90	3.67	3.50	3.36	3.26	3.17	3.03	2.89	2.74	2.66	2.58	2.49	2.40	2.31	2.21	
25	4.24	3.39	2.99	2.76	2.60	2.49	2.40	2.34	2.28	2.24	2.16	2.09	2.01	1.96	1.92	1.87	1.82	1.77	1.71	25
	7.77	5.57	4.68	4.18	3.85	3.63	3.46	3.32	3.22	3.13	2.99	2.85	2.70	2.62	2.54	2.45	2.36	2.27	2.17	
26	4.23	3.37	2.98	2.74	2.59	2.47	2.39	2.32	2.27	2.22	2.15	2.07	1.99	1.95	1.90	1.85	1.80	1.75	1.69	26
	7.72	5.53	4.64	4.14	3.82	3.59	3.42	3.29	3.18	3.09	2.96	2.81	2.66	2.58	2.50	2.42	2.33	2.23	2.13	
27	4.21	3.35	2.96	2.73	2.57	2.46	2.37	2.31	2.25	2.20	2.13	2.06	1.97	1.93	1.88	1.84	1.79	1.73	1.67	27
	7.68	5.49	4.60	4.11	3.78	3.56	3.39	3.26	3.15	3.06	2.93	2.78	2.63	2.55	2.47	2.38	2.29	2.20	2.10	
28	4.20	3.34	2.95	2.71	2.56	2.45	2.36	2.29	2.24	2.19	2.12	2.04	1.96	1.91	1.87	1.82	1.77	1.71	1.65	28
	7.64	5.45	4.57	4.07	3.75	3.53	3.36	3.23	3.12	3.03	2.90	2.75	2.60	2.52	2.44	2.35	2.26	2.17	2.06	
29	4.18	3.33	2.93	2.70	2.55	2.43	2.35	2.28	2.22	2.18	2.10	2.03	1.94	1.90	1.85	1.81	1.75	1.70	1.64	29
	7.60	5.42	4.54	4.04	3.73	3.50	3.33	3.20	3.09	3.00	2.87	2.73	2.57	2.49	2.41	2.33	2.23	2.14	2.03	
30	4.17	3.32	2.92	2.69	2.53	2.42	2.33	2.27	2.21	2.16	2.09	2.01	1.93	1.89	1.84	1.79	1.74	1.68	1.62	30
	7.56	5.39	4.51	4.02	3.70	3.47	3.30	3.17	3.07	2.98	2.84	2.70	2.55	2.47	2.39	2.30	2.21	2.11	2.01	
40	4.08	3.23	2.84	2.61	2.45	2.34	2.25	2.18	2.12	2.08	2.00	1.92	1.84	1.79	1.74	1.69	1.64	1.58	1.51	40
	7.31	5.18	4.31	3.83	3.51	3.29	3.12	2.99	2.89	2.80	2.66	2.52	2.37	2.29	2.20	2.11	2.02	1.92	1.80	
60	4.00	3.15	2.76	2.53	2.37	2.25	2.17	2.10	2.04	1.99	1.92	1.84	1.75	1.70	1.65	1.59	1.53	1.47	1.39	60
	7.08	4.98	4.13	3.65	3.34	3.12	2.95	2.82	2.72	2.63	2.50	2.35	2.20	2.12	2.03	1.94	1.84	1.73	1.60	
120	3.92	3.07	2.68	2.45	2.29	2.18	2.09	2.02	1.96	1.91	1.83	1.75	1.66	1.61	1.55	1.50	1.43	1.35	1.25	120
	6.85	4.79	3.95	3.48	3.17	2.96	2.79	2.66	2.56	2.47	2.34	2.19	2.03	1.95	1.86	1.76	1.66	1.53	1.38	
∞	3.84	3.00	2.60	2.37	2.21	2.10	2.01	1.94	1.88	1.83	1.75	1.67	1.57	1.52	1.46	1.39	1.32	1.22	1.00	∞
	6.63	4.61	3.78	3.32	3.02	2.80	2.64	2.51	2.41	2.32	2.18	2.04	1.88	1.79	1.70	1.59	1.47	1.32	1.00	

注 $\phi > 30$ で、表にない F の値を求める場合には、 $120/\phi$ を用いる 1 次補間により求める。

F 表 (2.5%)

付表5



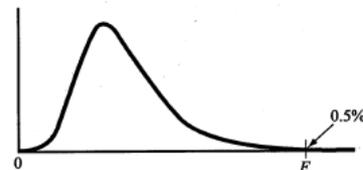
$F(\phi_1, \phi_2; \alpha) \quad \alpha=0.025$

ϕ_1 = 分子の自由度 ϕ_2 = 分母の自由度

$\phi_2 \backslash \phi_1$	1	2	3	4	5	6	7	8	9	10	12	15	20	24	30	40	60	120	∞	ϕ_2
1	648.	800.	864.	900.	922.	937.	948.	957.	963.	969.	977.	985.	993.	997.	1001.	1006.	1010.	1014.	1018.	1
2	38.5	39.0	39.2	39.2	39.3	39.3	39.4	39.4	39.4	39.4	39.4	39.4	39.4	39.5	39.5	39.5	39.5	39.5	39.5	2
3	17.4	16.0	15.4	15.1	14.9	14.7	14.6	14.5	14.5	14.4	14.3	14.3	14.2	14.1	14.1	14.0	14.0	13.9	13.9	3
4	12.2	10.6	9.98	9.60	9.36	9.20	9.07	8.98	8.90	8.84	8.75	8.66	8.56	8.51	8.46	8.41	8.36	8.31	8.26	4
5	10.0	8.43	7.76	7.39	7.15	6.98	6.85	6.76	6.68	6.62	6.52	6.43	6.33	6.28	6.23	6.18	6.12	6.07	6.02	5
6	8.81	7.26	6.60	6.23	5.99	5.82	5.70	5.60	5.52	5.46	5.37	5.27	5.17	5.12	5.07	5.01	4.96	4.90	4.85	6
7	8.07	6.54	5.89	5.52	5.29	5.12	4.99	4.90	4.82	4.76	4.67	4.57	4.47	4.42	4.36	4.31	4.25	4.20	4.14	7
8	7.57	6.06	5.42	5.05	4.82	4.65	4.53	4.43	4.36	4.30	4.20	4.10	4.00	3.95	3.89	3.84	3.78	3.73	3.67	8
9	7.21	5.71	5.08	4.72	4.48	4.32	4.20	4.10	4.03	3.96	3.87	3.77	3.67	3.61	3.56	3.51	3.45	3.39	3.33	9
10	6.94	5.46	4.83	4.47	4.24	4.07	3.95	3.85	3.78	3.72	3.62	3.52	3.42	3.37	3.31	3.26	3.20	3.14	3.08	10
11	6.72	5.26	4.63	4.28	4.04	3.88	3.76	3.66	3.59	3.53	3.43	3.33	3.23	3.17	3.12	3.06	3.00	2.94	2.88	11
12	6.55	5.10	4.47	4.12	3.89	3.73	3.61	3.51	3.44	3.37	3.28	3.18	3.07	3.02	2.96	2.91	2.85	2.79	2.72	12
13	6.41	4.97	4.35	4.00	3.77	3.60	3.48	3.39	3.31	3.25	3.15	3.05	2.95	2.89	2.84	2.78	2.72	2.66	2.60	13
14	6.30	4.86	4.24	3.89	3.66	3.50	3.38	3.29	3.21	3.15	3.05	2.95	2.84	2.79	2.73	2.67	2.61	2.55	2.49	14
15	6.20	4.77	4.15	3.80	3.58	3.41	3.29	3.20	3.12	3.06	2.96	2.86	2.76	2.70	2.64	2.59	2.52	2.46	2.40	15
16	6.12	4.69	4.08	3.73	3.50	3.34	3.22	3.12	3.05	2.99	2.89	2.79	2.68	2.63	2.57	2.51	2.45	2.38	2.32	16
17	6.04	4.62	4.01	3.66	3.44	3.28	3.16	3.06	2.98	2.92	2.82	2.72	2.62	2.56	2.50	2.44	2.38	2.32	2.25	17
18	5.98	4.56	3.95	3.61	3.38	3.22	3.10	3.01	2.93	2.87	2.77	2.67	2.56	2.50	2.44	2.38	2.32	2.26	2.19	18
19	5.92	4.51	3.90	3.56	3.33	3.17	3.05	2.96	2.88	2.82	2.72	2.62	2.51	2.45	2.39	2.33	2.27	2.20	2.13	19
20	5.87	4.46	3.86	3.51	3.29	3.13	3.01	2.91	2.84	2.77	2.68	2.57	2.46	2.41	2.35	2.29	2.22	2.16	2.09	20
21	5.83	4.42	3.82	3.48	3.25	3.09	2.97	2.87	2.80	2.73	2.64	2.53	2.42	2.37	2.31	2.25	2.18	2.11	2.04	21
22	5.79	4.38	3.78	3.44	3.22	3.05	2.93	2.84	2.76	2.70	2.60	2.50	2.39	2.33	2.27	2.21	2.14	2.08	2.00	22
23	5.75	4.35	3.75	3.41	3.18	3.02	2.90	2.81	2.73	2.67	2.57	2.47	2.36	2.30	2.24	2.18	2.11	2.04	1.97	23
24	5.72	4.32	3.72	3.38	3.15	2.99	2.87	2.78	2.70	2.64	2.54	2.44	2.33	2.27	2.21	2.15	2.08	2.01	1.94	24
25	5.69	4.29	3.69	3.35	3.13	2.97	2.85	2.75	2.68	2.61	2.51	2.41	2.30	2.24	2.18	2.12	2.05	1.98	1.91	25
26	5.66	4.27	3.67	3.33	3.10	2.94	2.82	2.73	2.65	2.59	2.49	2.39	2.28	2.22	2.16	2.09	2.03	1.95	1.88	26
27	5.63	4.24	3.65	3.31	3.08	2.92	2.80	2.71	2.63	2.57	2.47	2.36	2.25	2.19	2.13	2.07	2.00	1.93	1.85	27
28	5.61	4.22	3.63	3.29	3.06	2.90	2.78	2.69	2.61	2.55	2.45	2.34	2.23	2.17	2.11	2.05	1.98	1.91	1.83	28
29	5.59	4.20	3.61	3.27	3.04	2.88	2.76	2.67	2.59	2.53	2.43	2.32	2.21	2.15	2.09	2.03	1.96	1.89	1.81	29
30	5.57	4.18	3.59	3.25	3.03	2.87	2.75	2.65	2.57	2.51	2.41	2.31	2.20	2.14	2.07	2.01	1.94	1.87	1.79	30
40	5.42	4.05	3.46	3.13	2.90	2.74	2.62	2.53	2.45	2.39	2.29	2.18	2.07	2.01	1.94	1.88	1.80	1.72	1.64	40
60	5.29	3.93	3.34	3.01	2.79	2.63	2.51	2.41	2.33	2.27	2.17	2.06	1.94	1.88	1.82	1.74	1.67	1.58	1.48	60
120	5.15	3.80	3.23	2.89	2.67	2.52	2.39	2.30	2.22	2.16	2.05	1.94	1.82	1.76	1.69	1.61	1.53	1.43	1.31	120
∞	5.02	3.69	3.12	2.79	2.57	2.41	2.29	2.19	2.11	2.05	1.94	1.83	1.71	1.64	1.57	1.48	1.39	1.27	1.00	∞

例: $\phi_1=5, \phi_2=10$ の $F(\phi_1, \phi_2; 0.05)$ の値は, $\phi_1=5$ の列と $\phi_2=10$ の行の交わる点の値 4.24 で与えられる。

F 表 (0.5%)



$F(\phi_1, \phi_2; \alpha) \quad \alpha=0.005$

ϕ_1 = 分子の自由度 ϕ_2 = 分母の自由度

$\phi_2 \backslash \phi_1$	1	2	3	4	5	6	7	8	9	10	12	15	20	24	30	40	60	120	∞	ϕ_2
1	199.	199.	199.	199.	199.	199.	199.	199.	199.	199.	199.	199.	199.	199.	199.	199.	199.	199.	200.	1
2	55.6	49.8	47.5	46.2	45.4	44.8	44.4	44.1	43.9	43.7	43.4	43.1	42.8	42.6	42.5	42.3	42.1	42.0	41.8	2
3	31.3	26.3	24.3	23.2	22.5	22.0	21.6	21.4	21.1	21.0	20.7	20.4	20.2	20.0	19.9	19.8	19.6	19.5	19.3	3
4	22.8	18.3	16.5	15.6	14.9	14.5	14.2	14.0	13.8	13.6	13.4	13.1	12.9	12.8	12.7	12.5	12.4	12.3	12.1	4
5	18.6	14.5	12.9	12.0	11.5	11.1	10.8	10.6	10.4	10.3	10.0	9.81	9.59	9.47	9.36	9.24	9.12	9.00	8.88	5
6	16.2	12.4	10.9	10.1	9.52	9.16	8.89	8.68	8.51	8.38	8.18	7.97	7.75	7.64	7.53	7.42	7.31	7.19	7.08	6
7	14.7	11.0	9.60	8.81	8.30	7.95	7.69	7.50	7.34	7.21	7.01	6.81	6.61	6.50	6.40	6.29	6.18	6.06	5.95	7
8	13.6	10.1	8.72	7.96	7.47	7.13	6.88	6.69	6.54	6.42	6.23	6.03	5.83	5.73	5.62	5.52	5.41	5.30	5.19	8
9	12.8	9.43	8.08	7.34	6.87	6.54	6.30	6.12	5.97	5.85	5.66	5.47	5.27	5.17	5.07	4.97	4.86	4.75	4.64	9
10	12.2	8.91	7.60	6.88	6.42	6.10	5.86	5.68	5.54	5.42	5.24	5.05	4.86	4.76	4.65	4.55	4.44	4.34	4.23	10
11	11.8	8.51	7.23	6.52	6.07	5.76	5.52	5.35	5.20	5.09	4.91	4.72	4.53	4.43	4.33	4.23	4.12	4.01	3.90	11
12	11.4	8.19	6.93	6.23	5.79	5.48	5.25	5.08	4.94	4.82	4.64	4.46	4.27	4.17	4.07	3.97	3.87	3.76	3.65	12
13	11.1	7.92	6.68	6.00	5.56	5.26	5.03	4.86	4.72	4.60	4.43	4.25	4.06	3.96	3.86	3.76	3.66	3.55	3.44	13
14	10.8	7.70	6.48	5.80	5.37	5.07	4.85	4.67	4.54	4.42	4.25	4.07	3.88	3.79	3.69	3.58	3.48	3.37	3.26	14
15	10.6	7.51	6.30	5.64	5.21	4.91	4.69	4.52	4.38	4.27	4.10	3.92	3.73	3.64	3.54	3.44	3.33	3.22	3.11	15
16	10.4	7.35	6.16	5.50	5.07	4.78	4.56	4.39	4.25	4.14	3.97	3.79	3.61	3.51	3.41	3.31	3.21	3.10	2.98	16
17	10.2	7.21	6.03	5.37	4.96	4.66	4.44	4.28	4.14	4.03	3.86	3.68	3.50	3.40	3.30	3.20	3.10	2.99	2.87	17
18	10.1	7.09	5.92	5.27	4.85	4.56	4.34	4.18	4.04	3.93	3.76	3.59	3.40	3.31	3.21	3.11	3.00	2.89	2.78	18
19	9.94	6.99	5.82	5.17	4.76	4.47	4.26	4.09	3.96	3.85	3.68	3.50	3.32	3.22	3.12	3.02	2.92	2.81	2.69	19
20	9.83	6.89	5.73	5.09	4.68	4.39	4.18	4.01	3.88	3.77	3.60	3.43	3.24	3.15	3.05	2.95	2.84	2.73	2.61	20
21	9.73	6.81	5.65	5.02	4.61	4.32	4.11	3.94	3.81	3.70	3.54	3.36	3.18	3.08	2.98	2.88	2.77	2.66	2.55	21
22	9.63	6.73	5.58	4.95	4.54	4.26	4.05	3.88	3.75	3.64	3.47	3.30	3.12	3.02	2.92	2.82	2.71	2.60	2.48	22
23	9.55	6.66	5.52	4.89	4.49	4.20	3.99	3.83	3.69	3.59	3.42	3.25	3.06	2.97	2.87	2.77	2.66	2.55	2.43	23
24	9.48	6.60	5.46	4.84	4.43	4.15	3.94	3.78	3.64	3.54	3.37	3.20	3.01	2.92	2.82	2.72	2.61	2.50	2.38	24
25	9.41	6.54	5.41	4.79	4.38	4.10	3.89	3.73	3.60	3.49	3.33	3.15	2.97	2.87	2.77	2.67	2.56	2.45	2.33	