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# STATISTICAL TABLES

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**TABLE A Random Digits**

	<b>00000</b>	<b>00001</b>	<b>11111</b>	<b>11112</b>	<b>22222</b>	<b>22223</b>	<b>33333</b>	<b>33334</b>	<b>44444</b>	<b>44445</b>
	<b>12345</b>	<b>67890</b>	<b>12345</b>	<b>67890</b>	<b>12345</b>	<b>67890</b>	<b>12345</b>	<b>67890</b>	<b>12345</b>	<b>67890</b>
01	85967	73152	14511	85285	36009	95892	36962	67835	63314	50162
02	07483	51453	11649	86348	76431	81594	95848	36738	25014	15460
03	96283	01898	61414	83525	04231	13604	75339	11730	85423	60698
04	49174	12074	98551	37895	93547	24769	09404	76548	05393	96770
05	97366	39941	21225	93629	19574	71565	33413	56087	40875	13351
06	90474	41469	16812	81542	81652	45554	27931	93994	22375	00953
07	28599	64109	09497	76235	41383	31555	12639	00619	22909	29563
08	25254	16210	89717	65997	82667	74624	36348	44018	64732	93589
09	28785	02760	24359	99410	77319	73408	58993	61098	04393	48245
10	84725	86576	86944	93296	10081	82454	76810	52975	10324	15457
11	41059	66456	47679	66810	15941	84602	14493	65515	19251	41642
12	67434	41045	82830	47617	36932	46728	71183	36345	41404	81110
13	72766	68816	37643	19959	57550	49620	98480	25640	67257	18671
14	92079	46784	66125	94932	64451	29275	57669	66658	30818	58353
15	29187	40350	62533	73603	34075	16451	42885	03448	37390	96328
16	74220	17612	65522	80607	19184	64164	66962	82310	18163	63495
17	03786	02407	06098	92917	40434	60602	82175	04470	78754	90775
18	75085	55558	15520	27038	25471	76107	90832	10819	56797	33751
19	09161	33015	19155	11715	00551	24909	31894	37774	37953	78837
20	75707	48992	64998	87080	39333	00767	45637	12538	67439	94914
21	21333	48660	31288	00086	79889	75532	28704	62844	92337	99695
22	65626	50061	42539	14812	48895	11196	34335	60492	70650	51108
23	84380	07389	87891	76255	89604	41372	10837	66992	93183	56920
24	46479	32072	80083	63868	70930	89654	05359	47196	12452	38234
25	59847	97197	55147	76639	76971	55928	36441	95141	42333	67483
26	31416	11231	27904	57383	31852	69137	96667	14315	01007	31929
27	82066	83436	67914	21465	99605	83114	97885	74440	99622	87912
28	01850	42782	39202	18582	46214	99228	79541	78298	75404	63648
29	32315	89276	89582	87138	16165	15984	21466	63830	30475	74729
30	59388	42703	55198	80380	67067	97155	34160	85019	03527	78140
31	58089	27632	50987	91373	07736	20436	96130	73483	85332	24384
32	61705	57285	30392	23660	75841	21931	04295	00875	09114	32101
33	18914	98982	60199	99275	41967	35208	30357	76772	92656	62318
34	11965	94089	34803	48941	69709	16784	44642	89761	66864	62803
35	85251	48111	80936	81781	93248	67877	16498	31924	51315	79921
36	66121	96986	84844	93873	46352	92183	51152	85878	30490	15974
37	53972	96642	24199	58080	35450	03482	66953	49521	63719	57615
38	14509	16594	78883	43222	23093	58645	60257	89250	63266	90858
39	37700	07688	65533	72126	23611	93993	01848	03910	38552	17472
40	85466	59392	72722	15473	73295	49759	56157	60477	83284	56367
41	52969	55863	42312	67842	05673	91878	82738	36563	79540	61935
42	42744	68315	17514	02878	97291	74851	42725	57894	81434	62041
43	26140	13336	67726	61876	29971	99294	96664	52817	90039	53211
44	95589	56319	14563	24071	06916	59555	18195	32280	79357	04224
45	39113	13217	59999	49952	83021	47709	53105	19295	88318	41626
46	41392	17622	18994	98283	07249	52289	24209	91139	30715	06604
47	54684	53645	79246	70183	87731	19185	08541	33519	07223	97413
48	89442	61001	36658	57444	95388	36682	38052	46719	09428	94012
49	36751	16778	54888	15357	68003	43564	90976	58904	40512	07725
50	98159	02564	21416	74944	53049	88749	02865	25772	89853	88714









































































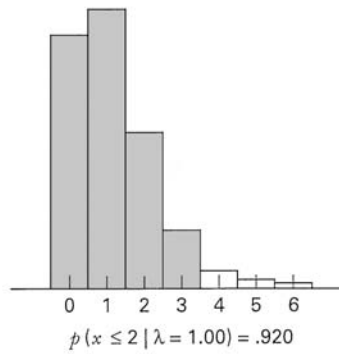








**TABLE C Cumulative Poisson Distribution  $P(X \leq X|\lambda)$ . 1000 Times the Probability of  $X$  or Fewer Occurrences of Event That Has Average Number of Occurrences Equal to  $\lambda$**



$\lambda \backslash x$	.02	.04	.06	.08	.10	.15	.20	.25
0	980	961	942	923	905	861	819	779
1	1000	999	998	997	995	990	982	974
2		1000	1000	1000	1000	999	999	998
3						1000	1000	1000
$\lambda \backslash x$	.30	.35	.40	.45	.50	.55	.60	.65
0	741	705	670	638	607	577	549	522
1	963	951	938	925	910	894	878	861
2	996	994	992	989	986	982	977	972
3	1000	1000	999	999	998	998	997	998
4			1000	1000	1000	1000	1000	999
5								1000
$\lambda \backslash x$	.70	.75	.80	.85	.90	.95	1.0	1.1
0	497	472	449	427	407	387	368	333
1	844	827	809	791	772	754	736	699
2	966	959	953	945	937	929	920	900
3	994	993	991	989	987	984	981	974
4	999	999	999	998	998	997	996	995
5	1000	1000	1000	1000	1000	1000	999	999
6							1000	1000









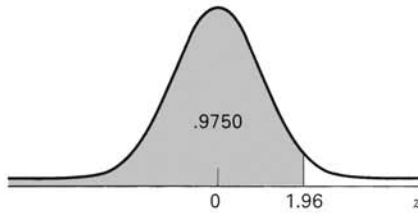


**TABLE C (continued)**

$\lambda$ $x$	19	20	21	22	23	24	25
6	001	000	000	000	000	000	000
7	002	001	000	000	000	000	000
8	004	002	001	001	000	000	000
9	009	005	003	002	001	000	000
10	018	011	006	004	002	001	001
11	035	021	013	008	004	003	001
12	061	039	025	015	009	005	003
13	098	066	043	028	017	011	006
14	150	105	072	048	031	020	012
15	215	157	111	077	052	034	022
16	292	221	163	117	082	056	038
17	378	297	227	169	123	087	060
18	469	381	302	232	175	128	092
19	561	470	384	306	238	180	134
20	647	559	471	387	310	243	185
21	725	644	558	472	389	314	247
22	793	721	640	556	472	392	318
23	849	787	716	637	555	473	394
24	893	843	782	712	635	554	473
25	927	888	838	777	708	632	553
26	951	922	883	832	772	704	629
27	969	948	917	877	827	768	700
28	980	966	944	913	873	823	763
29	988	978	963	940	908	868	818
30	993	987	976	959	936	904	863
31	996	992	985	973	956	932	900
32	998	995	991	983	971	953	929
33	999	997	994	989	981	969	950
34	999	999	997	994	988	979	966
35	1000	999	998	996	993	987	978
36		1000	999	998	996	992	985
37			999	999	997	995	991
38			1000	999	999	997	994
39				1000	999	998	997
40					1000	999	998
41						999	999
42						1000	999
43							1000



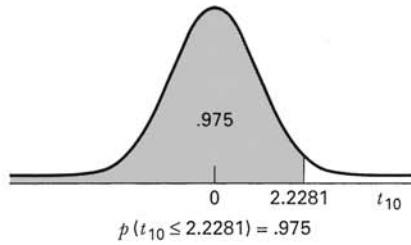
**TABLE D Normal Curve Areas  $P(z \leq z_0)$ . Entries in the Body of the Table Are Areas Between  $-\infty$  and  $z$**



$z$	-0.09	-0.08	-0.07	-0.06	-0.05	-0.04	-0.03	-0.02	-0.01	0.00	$z$
-3.80	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	-3.80
-3.70	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	-3.70
-3.60	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0002	.0002	-3.60
-3.50	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	.0002	-3.50
-3.40	.0002	.0003	.0003	.0003	.0003	.0003	.0003	.0003	.0003	.0003	-3.40
-3.30	.0003	.0004	.0004	.0004	.0004	.0004	.0004	.0005	.0005	.0005	-3.30
-3.20	.0005	.0005	.0005	.0006	.0006	.0006	.0006	.0006	.0007	.0007	-3.20
-3.10	.0007	.0007	.0008	.0008	.0008	.0008	.0009	.0009	.0009	.0010	-3.10
-3.00	.0010	.0010	.0011	.0011	.0011	.0012	.0012	.0013	.0013	.0013	-3.00
-2.90	.0014	.0014	.0015	.0015	.0016	.0016	.0017	.0018	.0018	.0019	-2.90
-2.80	.0019	.0020	.0021	.0021	.0022	.0023	.0023	.0024	.0025	.0026	-2.80
-2.70	.0026	.0027	.0028	.0029	.0030	.0031	.0032	.0033	.0034	.0035	-2.70
-2.60	.0036	.0037	.0038	.0039	.0040	.0041	.0043	.0044	.0045	.0047	-2.60
-2.50	.0048	.0049	.0051	.0052	.0054	.0055	.0057	.0059	.0060	.0062	-2.50
-2.40	.0064	.0066	.0068	.0069	.0071	.0073	.0075	.0078	.0080	.0082	-2.40
-2.30	.0084	.0087	.0089	.0091	.0094	.0096	.0099	.0102	.0104	.0107	-2.30
-2.20	.0110	.0113	.0116	.0119	.0122	.0125	.0129	.0132	.0136	.0139	-2.20
-2.10	.0143	.0146	.0150	.0154	.0158	.0162	.0166	.0170	.0174	.0179	-2.10
-2.00	.0183	.0188	.0192	.0197	.0202	.0207	.0212	.0217	.0222	.0228	-2.00
-1.90	.0233	.0239	.0244	.0250	.0256	.0262	.0268	.0274	.0281	.0287	-1.90
-1.80	.0294	.0301	.0307	.0314	.0322	.0329	.0336	.0344	.0351	.0359	-1.80
-1.70	.0367	.0375	.0384	.0392	.0401	.0409	.0418	.0427	.0436	.0446	-1.70
-1.60	.0455	.0465	.0475	.0485	.0495	.0505	.0516	.0526	.0537	.0548	-1.60
-1.50	.0559	.0571	.0582	.0594	.0606	.0618	.0630	.0643	.0655	.0668	-1.50
-1.40	.0681	.0694	.0708	.0721	.0735	.0749	.0764	.0778	.0793	.0808	-1.40
-1.30	.0823	.0838	.0853	.0869	.0885	.0901	.0918	.0934	.0951	.0968	-1.30
-1.20	.0985	.1003	.1020	.1038	.1056	.1075	.1093	.1112	.1131	.1151	-1.20
-1.10	.1170	.1190	.1210	.1230	.1251	.1271	.1292	.1314	.1335	.1357	-1.10
-1.00	.1379	.1401	.1423	.1446	.1469	.1492	.1515	.1539	.1562	.1587	-1.00
-0.90	.1611	.1635	.1660	.1685	.1711	.1736	.1762	.1788	.1814	.1841	-0.90
-0.80	.1867	.1894	.1922	.1949	.1977	.2005	.2033	.2061	.2090	.2119	-0.80
-0.70	.2148	.2177	.2206	.2236	.2266	.2296	.2327	.2358	.2389	.2420	-0.70
-0.60	.2451	.2483	.2514	.2546	.2578	.2611	.2643	.2676	.2709	.2743	-0.60
-0.50	.2776	.2810	.2843	.2877	.2912	.2946	.2981	.3015	.3050	.3085	-0.50
-0.40	.3121	.3156	.3192	.3228	.3264	.3300	.3336	.3372	.3409	.3446	-0.40
-0.30	.3483	.3520	.3557	.3594	.3632	.3669	.3707	.3745	.3783	.3821	-0.30
-0.20	.3859	.3897	.3936	.3974	.4013	.4052	.4090	.4129	.4168	.4207	-0.20
-0.10	.4247	.4286	.4325	.4364	.4404	.4443	.4483	.4522	.4562	.4602	-0.10
0.00	.4641	.4681	.4721	.4761	.4801	.4840	.4880	.4920	.4960	.5000	0.00



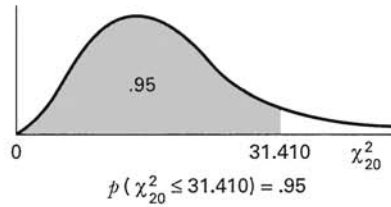
**TABLE E Percentiles of the  $t$  Distribution**



d.f.	$t_{.90}$	$t_{.95}$	$t_{.975}$	$t_{.99}$	$t_{.995}$
1	3.078	6.3138	12.706	31.821	63.657
2	1.886	2.9200	4.3027	6.965	9.9248
3	1.638	2.3534	3.1825	4.541	5.8409
4	1.533	2.1318	2.7764	3.747	4.6041
5	1.476	2.0150	2.5706	3.365	4.0321
6	1.440	1.9432	2.4469	3.143	3.7074
7	1.415	1.8946	2.3646	2.998	3.4995
8	1.397	1.8595	2.3060	2.896	3.3554
9	1.383	1.8331	2.2622	2.821	3.2498
10	1.372	1.8125	2.2281	2.764	3.1693
11	1.363	1.7959	2.2010	2.718	3.1058
12	1.356	1.7823	2.1788	2.681	3.0545
13	1.350	1.7709	2.1604	2.650	3.0123
14	1.345	1.7613	2.1448	2.624	2.9768
15	1.341	1.7530	2.1315	2.602	2.9467
16	1.337	1.7459	2.1199	2.583	2.9208
17	1.333	1.7396	2.1098	2.567	2.8982
18	1.330	1.7341	2.1009	2.552	2.8784
19	1.328	1.7291	2.0930	2.539	2.8609
20	1.325	1.7247	2.0860	2.528	2.8453
21	1.323	1.7207	2.0796	2.518	2.8314
22	1.321	1.7171	2.0739	2.508	2.8188
23	1.319	1.7139	2.0687	2.500	2.8073
24	1.318	1.7109	2.0639	2.492	2.7969
25	1.316	1.7081	2.0595	2.485	2.7874
26	1.315	1.7056	2.0555	2.479	2.7787
27	1.314	1.7033	2.0518	2.473	2.7707
28	1.313	1.7011	2.0484	2.467	2.7633
29	1.311	1.6991	2.0452	2.462	2.7564
30	1.310	1.6973	2.0423	2.457	2.7500
35	1.3062	1.6896	2.0301	2.438	2.7239
40	1.3031	1.6839	2.0211	2.423	2.7045
45	1.3007	1.6794	2.0141	2.412	2.6896
50	1.2987	1.6759	2.0086	2.403	2.6778
60	1.2959	1.6707	2.0003	2.390	2.6603
70	1.2938	1.6669	1.9945	2.381	2.6480
80	1.2922	1.6641	1.9901	2.374	2.6388
90	1.2910	1.6620	1.9867	2.368	2.6316
100	1.2901	1.6602	1.9840	2.364	2.6260
120	1.2887	1.6577	1.9799	2.358	2.6175
140	1.2876	1.6558	1.9771	2.353	2.6114
160	1.2869	1.6545	1.9749	2.350	2.6070
180	1.2863	1.6534	1.9733	2.347	2.6035
200	1.2858	1.6525	1.9719	2.345	2.6006
$\infty$	1.282	1.645	1.96	2.326	2.576

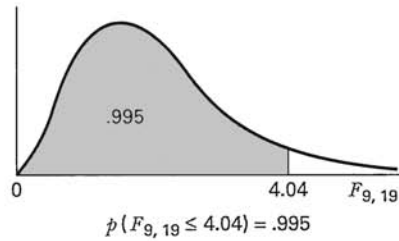


**TABLE F Percentiles of the Chi-Square Distribution**



d.f.	$\chi^2_{.005}$	$\chi^2_{.025}$	$\chi^2_{.05}$	$\chi^2_{.90}$	$\chi^2_{.95}$	$\chi^2_{.975}$	$\chi^2_{.99}$	$\chi^2_{.995}$
1	.0000393	.000982	.00393	2.706	3.841	5.024	6.635	7.879
2	.0100	.0506	.103	4.605	5.991	7.378	9.210	10.597
3	.0717	.216	.352	6.251	7.815	9.348	11.345	12.838
4	.207	.484	.711	7.779	9.488	11.143	13.277	14.860
5	.412	.831	1.145	9.236	11.070	12.832	15.086	16.750
6	.676	1.237	1.635	10.645	12.592	14.449	16.812	18.548
7	.989	1.690	2.167	12.017	14.067	16.013	18.475	20.278
8	1.344	2.180	2.733	13.362	15.507	17.535	20.090	21.955
9	1.735	2.700	3.325	14.684	16.919	19.023	21.666	23.589
10	2.156	3.247	3.940	15.987	18.307	20.483	23.209	25.188
11	2.603	3.816	4.575	17.275	19.675	21.920	24.725	26.757
12	3.074	4.404	5.226	18.549	21.026	23.336	26.217	28.300
13	3.565	5.009	5.892	19.812	22.362	24.736	27.688	29.819
14	4.075	5.629	6.571	21.064	23.685	26.119	29.141	31.319
15	4.601	6.262	7.261	22.307	24.996	27.488	30.578	32.801
16	5.142	6.908	7.962	23.542	26.296	28.845	32.000	34.267
17	5.697	7.564	8.672	24.769	27.587	30.191	33.409	35.718
18	6.265	8.231	9.390	25.989	28.869	31.526	34.805	37.156
19	6.844	8.907	10.117	27.204	30.144	32.852	36.191	38.582
20	7.434	9.591	10.851	28.412	31.410	34.170	37.566	39.997
21	8.034	10.283	11.591	29.615	32.671	35.479	38.932	41.401
22	8.643	10.982	12.338	30.813	33.924	36.781	40.289	42.796
23	9.260	11.688	13.091	32.007	35.172	38.076	41.638	44.181
24	9.886	12.401	13.848	33.196	36.415	39.364	42.980	45.558
25	10.520	13.120	14.611	34.382	37.652	40.646	44.314	46.928
26	11.160	13.844	15.379	35.563	38.885	41.923	45.642	48.290
27	11.808	14.573	16.151	36.741	40.113	43.194	46.963	49.645
28	12.461	15.308	16.928	37.916	41.337	44.461	48.278	50.993
29	13.121	16.047	17.708	39.087	42.557	45.722	49.588	52.336
30	13.787	16.791	18.493	40.256	43.773	46.979	50.892	53.672
35	17.192	20.569	22.465	46.059	49.802	53.203	57.342	60.275
40	20.707	24.433	26.509	51.805	55.758	59.342	63.691	66.766
45	24.311	28.366	30.612	57.505	61.656	65.410	69.957	73.166
50	27.991	32.357	34.764	63.167	67.505	71.420	76.154	79.490
60	35.535	40.482	43.188	74.397	79.082	83.298	88.379	91.952
70	43.275	48.758	51.739	85.527	90.531	95.023	100.425	104.215
80	51.172	57.153	60.391	96.578	101.879	106.629	112.329	116.321
90	59.196	65.647	69.126	107.565	113.145	118.136	124.116	128.299
100	67.328	74.222	77.929	118.498	124.342	129.561	135.807	140.169

TABLE G Percentiles of the F Distribution



		$F_{.995}$								
Denominator Degrees of Freedom	Numerator Degrees of Freedom									
	1	2	3	4	5	6	7	8	9	
1	16211	20000	21615	22500	23056	23437	23715	23925	24091	
2	198.5	199.0	199.2	199.2	199.3	199.3	199.4	199.4	199.4	
3	55.55	49.80	47.47	46.19	45.39	44.84	44.43	44.13	43.88	
4	31.33	26.28	24.26	23.15	22.46	21.97	21.62	21.35	21.14	
5	22.78	18.31	16.53	15.56	14.94	14.51	14.20	13.96	13.77	
6	18.63	14.54	12.92	12.03	11.46	11.07	10.79	10.57	10.39	
7	16.24	12.40	10.88	10.05	9.52	9.16	8.89	8.68	8.51	
8	14.69	11.04	9.60	8.81	8.30	7.95	7.69	7.50	7.34	
9	13.61	10.11	8.72	7.96	7.47	7.13	6.88	6.69	6.54	
10	12.83	9.43	8.08	7.34	6.87	6.54	6.30	6.12	5.97	
11	12.23	8.91	7.60	6.88	6.42	6.10	5.86	5.68	5.54	
12	11.75	8.51	7.23	6.52	6.07	5.76	5.52	5.35	5.20	
13	11.37	8.19	6.93	6.23	5.79	5.48	5.25	5.08	4.94	
14	11.06	7.92	6.68	6.00	5.56	5.26	5.03	4.86	4.72	
15	10.80	7.70	6.48	5.80	5.37	5.07	4.85	4.67	4.54	
16	10.58	7.51	6.30	5.64	5.21	4.91	4.69	4.52	4.38	
17	10.38	7.35	6.16	5.50	5.07	4.78	4.56	4.39	4.25	
18	10.22	7.21	6.03	5.37	4.96	4.66	4.44	4.28	4.14	
19	10.07	7.09	5.92	5.27	4.85	4.56	4.34	4.18	4.04	
20	9.94	6.99	5.82	5.17	4.76	4.47	4.26	4.09	3.96	
21	9.83	6.89	5.73	5.09	4.68	4.39	4.18	4.01	3.88	
22	9.73	6.81	5.65	5.02	4.61	4.32	4.11	3.94	3.81	
23	9.63	6.73	5.58	4.95	4.54	4.26	4.05	3.88	3.75	
24	9.55	6.66	5.52	4.89	4.49	4.20	3.99	3.83	3.69	
25	9.48	6.60	5.46	4.84	4.43	4.15	3.94	3.78	3.64	
26	9.41	6.54	5.41	4.79	4.38	4.10	3.89	3.73	3.60	
27	9.34	6.49	5.36	4.74	4.34	4.06	3.85	3.69	3.56	
28	9.28	6.44	5.32	4.70	4.30	4.02	3.81	3.65	3.52	
29	9.23	6.40	5.28	4.66	4.26	3.98	3.77	3.61	3.48	
30	9.18	6.35	5.24	4.62	4.23	3.95	3.74	3.58	3.45	
40	8.83	6.07	4.98	4.37	3.99	3.71	3.51	3.35	3.22	
60	8.49	5.79	4.73	4.14	3.76	3.49	3.29	3.13	3.01	
120	8.18	5.54	4.50	3.92	3.55	3.28	3.09	2.93	2.81	
$\infty$	7.88	5.30	4.28	3.72	3.35	3.09	2.90	2.74	2.62	

**TABLE G (continued)**

Denominator Degrees of Freedom	Numerator Degrees of Freedom									
	10	12	15	20	24	30	40	60	120	$\infty$
1	24224	24426	24630	24836	24940	25044	25148	25253	25359	25465
2	199.4	199.4	199.4	199.4	199.5	199.5	199.5	199.5	199.5	199.5
3	43.69	43.39	43.08	42.78	42.62	42.47	42.31	42.15	41.99	41.83
4	20.97	20.70	20.44	20.17	20.03	19.89	19.75	19.61	19.47	19.32
5	13.62	13.38	13.15	12.90	12.78	12.66	12.53	12.40	12.27	12.14
6	10.25	10.03	9.81	9.59	9.47	9.36	9.24	9.12	9.00	8.88
7	8.38	8.18	7.97	7.75	7.65	7.53	7.42	7.31	7.19	7.08
8	7.21	7.01	6.81	6.61	6.50	6.40	6.29	6.18	6.06	5.95
9	6.42	6.23	6.03	5.83	5.73	5.62	5.52	5.41	5.30	5.19
10	5.85	5.66	5.47	5.27	5.17	5.07	4.97	4.86	4.75	4.64
11	5.42	5.24	5.05	4.86	4.76	4.65	4.55	4.44	4.34	4.23
12	5.09	4.91	4.72	4.53	4.43	4.33	4.23	4.12	4.01	3.90
13	4.82	4.64	4.46	4.27	4.17	4.07	3.97	3.87	3.76	3.65
14	4.60	4.43	4.25	4.06	3.96	3.86	3.76	3.66	3.55	3.44
15	4.42	4.25	4.07	3.88	3.79	3.69	3.58	3.48	3.37	3.26
16	4.27	4.10	3.92	3.73	3.64	3.54	3.44	3.33	3.22	3.11
17	4.14	3.97	3.79	3.61	3.51	3.41	3.31	3.21	3.10	2.98
18	4.03	3.86	3.68	3.50	3.40	3.30	3.20	3.10	2.99	2.87
19	3.93	3.76	3.59	3.40	3.31	3.21	3.11	3.00	2.89	2.78
20	3.85	3.68	3.50	3.32	3.22	3.12	3.02	2.92	2.81	2.69
21	3.77	3.60	3.43	3.24	3.15	3.05	2.95	2.84	2.73	2.61
22	3.70	3.54	3.36	3.18	3.08	2.98	2.88	2.77	2.66	2.55
23	3.64	3.47	3.30	3.12	3.02	2.92	2.82	2.71	2.60	2.48
24	3.59	3.42	3.25	3.06	2.97	2.87	2.77	2.66	2.55	2.43
25	3.54	3.37	3.20	3.01	2.92	2.82	2.72	2.61	2.50	2.38
26	3.49	3.33	3.15	2.97	2.87	2.77	2.67	2.56	2.45	2.33
27	3.45	3.28	3.11	2.93	2.83	2.73	2.63	2.52	2.41	2.29
28	3.41	3.25	3.07	2.89	2.79	2.69	2.59	2.48	2.37	2.25
29	3.38	3.21	3.04	2.86	2.76	2.66	2.56	2.45	2.33	2.21
30	3.34	3.18	3.01	2.82	2.73	2.63	2.52	2.42	2.30	2.18
40	3.12	2.95	2.78	2.60	2.50	2.40	2.30	2.18	2.06	1.93
60	2.90	2.74	2.57	2.39	2.29	2.19	2.08	1.96	1.83	1.69
120	2.71	2.54	2.37	2.19	2.09	1.98	1.87	1.75	1.61	1.43
$\infty$	2.52	2.36	2.19	2.00	1.90	1.79	1.67	1.53	1.36	1.00

TABLE G (continued)

		$F_{.99}$								
Denominator Degrees of Freedom	Numerator Degrees of Freedom									
	1	2	3	4	5	6	7	8	9	
1	4052	4999.5	5403	5625	5764	5859	5928	5981	6022	
2	98.50	99.00	99.17	99.25	99.30	99.33	99.36	99.37	99.39	
3	34.12	30.82	29.46	28.71	28.24	27.91	27.67	27.49	27.35	
4	21.20	18.00	16.69	15.98	15.52	15.21	14.98	14.80	14.66	
5	16.26	13.27	12.06	11.39	10.97	10.67	10.46	10.29	10.16	
6	13.75	10.92	9.78	9.15	8.75	8.47	8.26	8.10	7.98	
7	12.25	9.55	8.45	7.85	7.46	7.19	6.99	6.84	6.72	
8	11.26	8.65	7.59	7.01	6.63	6.37	6.18	6.03	5.91	
9	10.56	8.02	6.99	6.42	6.06	5.80	5.61	5.47	5.35	
10	10.04	7.56	6.55	5.99	5.64	5.39	5.20	5.06	4.94	
11	9.65	7.21	6.22	5.67	5.32	5.07	4.89	4.74	4.63	
12	9.33	6.93	5.95	5.41	5.06	4.82	4.64	4.50	4.39	
13	9.07	6.70	5.74	5.21	4.86	4.62	4.44	4.30	4.19	
14	8.86	6.51	5.56	5.04	4.69	4.46	4.28	4.14	4.03	
15	8.68	6.36	5.42	4.89	4.56	4.32	4.14	4.00	3.89	
16	8.53	6.23	5.29	4.77	4.44	4.20	4.03	3.89	3.78	
17	8.40	6.11	5.18	4.67	4.34	4.10	3.93	3.79	3.68	
18	8.29	6.01	5.09	4.58	4.25	4.01	3.84	3.71	3.60	
19	8.18	5.93	5.01	4.50	4.17	3.94	3.77	3.63	3.52	
20	8.10	5.85	4.94	4.43	4.10	3.87	3.70	3.56	3.46	
21	8.02	5.78	4.87	4.37	4.04	3.81	3.64	3.51	3.40	
22	7.95	5.72	4.82	4.31	3.99	3.76	3.59	3.45	3.35	
23	7.88	5.66	4.76	4.26	3.94	3.71	3.54	3.41	3.30	
24	7.82	5.61	4.72	4.22	3.90	3.67	3.50	3.36	3.26	
25	7.77	5.57	4.68	4.18	3.85	3.63	3.46	3.32	3.22	
26	7.72	5.53	4.64	4.14	3.82	3.59	3.42	3.29	3.18	
27	7.68	5.49	4.60	4.11	3.78	3.56	3.39	3.26	3.15	
28	7.64	5.45	4.57	4.07	3.75	3.53	3.36	3.23	3.12	
29	7.60	5.42	4.54	4.04	3.73	3.50	3.33	3.20	3.09	
30	7.56	5.39	4.51	4.02	3.70	3.47	3.30	3.17	3.07	
40	7.31	5.18	4.31	3.83	3.51	3.29	3.12	2.99	2.89	
60	7.08	4.98	4.13	3.65	3.34	3.12	2.95	2.82	2.72	
120	6.85	4.79	3.95	3.48	3.17	2.96	2.79	2.66	2.56	
$\infty$	6.63	4.61	3.78	3.32	3.02	2.80	2.64	2.51	2.41	



**TABLE G (continued)**

Denominator Degrees of Freedom	Numerator Degrees of Freedom									
	10	12	15	20	24	30	40	60	120	$\infty$
1	6056	6106	6157	6209	6235	6261	6287	6313	6339	6366
2	99.40	99.42	99.43	99.45	99.46	99.47	99.47	99.48	99.49	99.50
3	27.23	27.05	26.87	26.69	26.60	26.50	26.41	26.32	26.22	26.13
4	14.55	14.37	14.20	14.02	13.93	13.84	13.75	13.65	13.56	13.46
5	10.05	9.89	9.72	9.55	9.47	9.38	9.29	9.20	9.11	9.02
6	7.87	7.72	7.56	7.40	7.31	7.23	7.14	7.06	6.97	6.88
7	6.62	6.47	6.31	6.16	6.07	5.99	5.91	5.82	5.74	5.65
8	5.81	5.67	5.52	5.36	5.28	5.20	5.12	5.03	4.95	4.86
9	5.26	5.11	4.96	4.81	4.73	4.65	4.57	4.48	4.40	4.31
10	4.85	4.71	4.56	4.41	4.33	4.25	4.17	4.08	4.00	3.91
11	4.54	4.40	4.25	4.10	4.02	3.94	3.86	3.78	3.69	3.60
12	4.30	4.16	4.01	3.86	3.78	3.70	3.62	3.54	3.45	3.36
13	4.10	3.96	3.82	3.66	3.59	3.51	3.43	3.34	3.25	3.17
14	3.94	3.80	3.66	3.51	3.43	3.35	3.27	3.18	3.09	3.00
15	3.80	3.67	3.52	3.37	3.29	3.21	3.13	3.05	2.96	2.87
16	3.69	3.55	3.41	3.26	3.18	3.10	3.02	2.93	2.84	2.75
17	3.59	3.46	3.31	3.16	3.08	3.00	2.92	2.83	2.75	2.65
18	3.51	3.37	3.23	3.08	3.00	2.92	2.84	2.75	2.66	2.57
19	3.43	3.30	3.15	3.00	2.92	2.84	2.76	2.67	2.58	2.49
20	3.37	3.23	3.09	2.94	2.86	2.78	2.69	2.61	2.52	2.42
21	3.31	3.17	3.03	2.88	2.80	2.72	2.64	2.55	2.46	2.36
22	3.26	3.12	2.98	2.83	2.75	2.67	2.58	2.50	2.40	2.31
23	3.21	3.07	2.93	2.78	2.70	2.62	2.54	2.45	2.35	2.26
24	3.17	3.03	2.89	2.74	2.66	2.58	2.49	2.40	2.31	2.21
25	3.13	2.99	2.85	2.70	2.62	2.54	2.45	2.36	2.27	2.17
26	3.09	2.96	2.81	2.66	2.58	2.50	2.42	2.33	2.23	2.13
27	3.06	2.93	2.78	2.63	2.55	2.47	2.38	2.29	2.20	2.10
28	3.03	2.90	2.75	2.60	2.52	2.44	2.35	2.26	2.17	2.06
29	3.00	2.87	2.73	2.57	2.49	2.41	2.33	2.23	2.14	2.03
30	2.98	2.84	2.70	2.55	2.47	2.39	2.30	2.21	2.11	2.01
40	2.80	2.66	2.52	2.37	2.29	2.20	2.11	2.02	1.92	1.80
60	2.63	2.50	2.35	2.20	2.12	2.03	1.94	1.84	1.73	1.60
120	2.47	2.34	2.19	2.03	1.95	1.86	1.76	1.66	1.53	1.38
$\infty$	2.32	2.18	2.04	1.88	1.79	1.70	1.59	1.47	1.32	1.00

TABLE G (continued)

Denominator Degrees of Freedom	$F_{.975}$								
	Numerator Degrees of Freedom								
	1	2	3	4	5	6	7	8	9
1	647.8	799.5	864.2	899.6	921.8	937.1	948.2	956.7	963.3
2	38.51	39.00	39.17	39.25	39.30	39.33	39.36	39.37	39.39
3	17.44	16.04	15.44	15.10	14.88	14.73	14.62	14.54	14.47
4	12.22	10.65	9.98	9.60	9.36	9.20	9.07	8.98	8.90
5	10.01	8.43	7.76	7.39	7.15	6.98	6.85	6.76	6.68
6	8.81	7.26	6.60	6.23	5.99	5.82	5.70	5.60	5.52
7	8.07	6.54	5.89	5.52	5.29	5.12	4.99	4.90	4.82
8	7.57	6.06	5.42	5.05	4.82	4.65	4.53	4.43	4.36
9	7.21	5.71	5.08	4.72	4.48	4.32	4.20	4.10	4.03
10	6.94	5.46	4.83	4.47	4.24	4.07	3.95	3.85	3.78
11	6.72	5.26	4.63	4.28	4.04	3.88	3.76	3.66	3.59
12	6.55	5.10	4.47	4.12	3.89	3.73	3.61	3.51	3.44
13	6.41	4.97	4.35	4.00	3.77	3.60	3.48	3.39	3.31
14	6.30	4.86	4.24	3.89	3.66	3.50	3.38	3.29	3.21
15	6.20	4.77	4.15	3.80	3.58	3.41	3.29	3.20	3.12
16	6.12	4.69	4.08	3.73	3.50	3.34	3.22	3.12	3.05
17	6.04	4.62	4.01	3.66	3.44	3.28	3.16	3.06	2.98
18	5.98	4.56	3.95	3.61	3.38	3.22	3.10	3.01	2.93
19	5.92	4.51	3.90	3.56	3.33	3.17	3.05	2.96	2.88
20	5.87	4.46	3.86	3.51	3.29	3.13	3.01	2.91	2.84
21	5.83	4.42	3.82	3.48	3.25	3.09	2.97	2.87	2.80
22	5.79	4.38	3.78	3.44	3.22	3.05	2.93	2.84	2.76
23	5.75	4.35	3.75	3.41	3.18	3.02	2.90	2.81	2.73
24	5.72	4.32	3.72	3.38	3.15	2.99	2.87	2.78	2.70
25	5.69	4.29	3.69	3.35	3.13	2.97	2.85	2.75	2.68
26	5.66	4.27	3.67	3.33	3.10	2.94	2.82	2.73	2.65
27	5.63	4.24	3.65	3.31	3.08	2.92	2.80	2.71	2.63
28	5.61	4.22	3.63	3.29	3.06	2.90	2.78	2.69	2.61
29	5.59	4.20	3.61	3.27	3.04	2.88	2.76	2.67	2.59
30	5.57	4.18	3.59	3.25	3.03	2.87	2.75	2.65	2.57
40	5.42	4.05	3.46	3.13	2.90	2.74	2.62	2.53	2.45
60	5.29	3.93	3.34	3.01	2.79	2.63	2.51	2.41	2.33
120	5.15	3.80	3.23	2.89	2.67	2.52	2.39	2.30	2.22
$\infty$	5.02	3.69	3.12	2.79	2.57	2.41	2.29	2.19	2.11

**TABLE G (continued)**

Denominator Degrees of Freedom	Numerator Degrees of Freedom									
	10	12	15	20	24	30	40	60	120	$\infty$
1	968.6	976.7	984.9	993.1	997.2	1001	1006	1010	1014	1018
2	39.40	39.41	39.43	39.45	39.46	39.46	39.47	39.48	39.49	39.50
3	14.42	14.34	14.25	14.17	14.12	14.08	14.04	13.99	13.95	13.90
4	8.84	8.75	8.66	8.56	8.51	8.46	8.41	8.36	8.31	8.26
5	6.62	6.52	6.43	6.33	6.28	6.23	6.18	6.12	6.07	6.02
6	5.46	5.37	5.27	5.17	5.12	5.07	5.01	4.96	4.90	4.85
7	4.76	4.67	4.57	4.47	4.42	4.36	4.31	4.25	4.20	4.14
8	4.30	4.20	4.10	4.00	3.95	3.89	3.84	3.78	3.73	3.67
9	3.96	3.87	3.77	3.67	3.61	3.56	3.51	3.45	3.39	3.33
10	3.72	3.62	3.52	3.42	3.37	3.31	3.26	3.20	3.14	3.08
11	3.53	3.43	3.33	3.23	3.17	3.12	3.06	3.00	2.94	2.88
12	3.37	3.28	3.18	3.07	3.02	2.96	2.91	2.85	2.79	2.72
13	3.25	3.15	3.05	2.95	2.89	2.84	2.78	2.72	2.66	2.60
14	3.15	3.05	2.95	2.84	2.79	2.73	2.67	2.61	2.55	2.49
15	3.06	2.96	2.86	2.76	2.70	2.64	2.59	2.52	2.46	2.40
16	2.99	2.89	2.79	2.68	2.63	2.57	2.51	2.45	2.38	2.32
17	2.92	2.82	2.72	2.62	2.56	2.50	2.44	2.38	2.32	2.25
18	2.87	2.77	2.67	2.56	2.50	2.44	2.38	2.32	2.26	2.19
19	2.82	2.72	2.62	2.51	2.45	2.39	2.33	2.27	2.20	2.13
20	2.77	2.68	2.57	2.46	2.41	2.35	2.29	2.22	2.16	2.09
21	2.73	2.64	2.53	2.42	2.37	2.31	2.25	2.18	2.11	2.04
22	2.70	2.60	2.50	2.39	2.33	2.27	2.21	2.14	2.08	2.00
23	2.67	2.57	2.47	2.36	2.30	2.24	2.18	2.11	2.04	1.97
24	2.64	2.54	2.44	2.33	2.27	2.21	2.15	2.08	2.01	1.94
25	2.61	2.51	2.41	2.30	2.24	2.18	2.12	2.05	1.98	1.91
26	2.59	2.49	2.39	2.28	2.22	2.16	2.09	2.03	1.95	1.88
27	2.57	2.47	2.36	2.25	2.19	2.13	2.07	2.00	1.93	1.85
28	2.55	2.45	2.34	2.23	2.17	2.11	2.05	1.98	1.91	1.83
29	2.53	2.43	2.32	2.21	2.15	2.09	2.03	1.96	1.89	1.81
30	2.51	2.41	2.31	2.20	2.14	2.07	2.01	1.94	1.87	1.79
40	2.39	2.29	2.18	2.07	2.01	1.94	1.88	1.80	1.72	1.64
60	2.27	2.17	2.06	1.94	1.88	1.82	1.74	1.67	1.58	1.48
120	2.16	2.05	1.94	1.82	1.76	1.69	1.61	1.53	1.43	1.31
$\infty$	2.05	1.94	1.83	1.71	1.64	1.57	1.48	1.39	1.27	1.00

TABLE G (continued)

Denominator Degrees of Freedom	$F_{.95}$								
	Numerator Degrees of Freedom								
	1	2	3	4	5	6	7	8	9
1	161.4	199.5	215.7	224.6	230.2	234.0	236.8	238.9	240.5
2	18.51	19.00	19.16	19.25	19.30	19.33	19.35	19.37	19.38
3	10.13	9.55	9.28	9.12	9.01	8.94	8.89	8.85	8.81
4	7.71	6.94	6.59	6.39	6.26	6.16	6.09	6.04	6.00
5	6.61	5.79	5.41	5.19	5.05	4.95	4.88	4.82	4.77
6	5.99	5.14	4.76	4.53	4.39	4.28	4.21	4.15	4.10
7	5.59	4.74	4.35	4.12	3.97	3.87	3.79	3.73	3.68
8	5.32	4.46	4.07	3.84	3.69	3.58	3.50	3.44	3.39
9	5.12	4.26	3.86	3.63	3.48	3.37	3.29	3.23	3.18
10	4.96	4.10	3.71	3.48	3.33	3.22	3.14	3.07	3.02
11	4.84	3.98	3.59	3.36	3.20	3.09	3.01	2.95	2.90
12	4.75	3.89	3.49	3.26	3.11	3.00	2.91	2.85	2.80
13	4.67	3.81	3.41	3.18	3.03	2.92	2.83	2.77	2.71
14	4.60	3.74	3.34	3.11	2.96	2.85	2.76	2.70	2.65
15	4.54	3.68	3.29	3.06	2.90	2.79	2.71	2.64	2.59
16	4.49	3.63	3.24	3.01	2.85	2.74	2.66	2.59	2.54
17	4.45	3.59	3.20	2.96	2.81	2.70	2.61	2.55	2.49
18	4.41	3.55	3.16	2.93	2.77	2.66	2.58	2.51	2.46
19	4.38	3.52	3.13	2.90	2.74	2.63	2.54	2.48	2.42
20	4.35	3.49	3.10	2.87	2.71	2.60	2.51	2.45	2.39
21	4.32	3.47	3.07	2.84	2.68	2.57	2.49	2.42	2.37
22	4.30	3.44	3.05	2.82	2.66	2.55	2.46	2.40	2.34
23	4.28	3.42	3.03	2.80	2.64	2.53	2.44	2.37	2.32
24	4.26	3.40	3.01	2.78	2.62	2.51	2.42	2.36	2.30
25	4.24	3.39	2.99	2.76	2.60	2.49	2.40	2.34	2.28
26	4.23	3.37	2.98	2.74	2.59	2.47	2.39	2.32	2.27
27	4.21	3.35	2.96	2.73	2.57	2.46	2.37	2.31	2.25
28	4.20	3.34	2.95	2.71	2.56	2.45	2.36	2.29	2.24
29	4.18	3.33	2.93	2.70	2.55	2.43	2.35	2.28	2.22
30	4.17	3.32	2.92	2.69	2.53	2.42	2.33	2.27	2.21
40	4.08	3.23	2.84	2.61	2.45	2.34	2.25	2.18	2.12
60	4.00	3.15	2.76	2.53	2.37	2.25	2.17	2.10	2.04
120	3.92	3.07	2.68	2.45	2.29	2.17	2.09	2.02	1.96
$\infty$	3.84	3.00	2.60	2.37	2.21	2.10	2.01	1.94	1.88



**TABLE G (continued)**

Denominator Degrees of Freedom	Numerator Degrees of Freedom									
	10	12	15	20	24	30	40	60	120	$\infty$
1	241.9	243.9	245.9	248.0	249.1	250.1	251.1	252.2	253.3	254.3
2	19.40	19.41	19.43	19.45	19.45	19.46	19.47	19.48	19.49	19.50
3	8.79	8.74	8.70	8.66	8.64	8.62	8.59	8.57	8.55	8.53
4	5.96	5.91	5.86	5.80	5.77	5.75	5.72	5.69	5.66	5.63
5	4.74	4.68	4.62	4.56	4.53	4.50	4.46	4.43	4.40	4.36
6	4.06	4.00	3.94	3.87	3.84	3.81	3.77	3.74	3.70	3.67
7	3.64	3.57	3.51	3.44	3.41	3.38	3.34	3.30	3.27	3.23
8	3.35	3.28	3.22	3.15	3.12	3.08	3.04	3.01	2.97	2.93
9	3.14	3.07	3.01	2.94	2.90	2.86	2.83	2.79	2.75	2.71
10	2.98	2.91	2.85	2.77	2.74	2.70	2.66	2.62	2.58	2.54
11	2.85	2.79	2.72	2.65	2.61	2.57	2.53	2.49	2.45	2.40
12	2.75	2.69	2.62	2.54	2.51	2.47	2.43	2.38	2.34	2.30
13	2.67	2.60	2.53	2.46	2.42	2.38	2.34	2.30	2.25	2.21
14	2.60	2.53	2.46	2.39	2.35	2.31	2.27	2.22	2.18	2.13
15	2.54	2.48	2.40	2.33	2.29	2.25	2.20	2.16	2.11	2.07
16	2.49	2.42	2.35	2.28	2.24	2.19	2.15	2.11	2.06	2.01
17	2.45	2.38	2.31	2.23	2.19	2.15	2.10	2.06	2.01	1.96
18	2.41	2.34	2.27	2.19	2.15	2.11	2.06	2.02	1.97	1.92
19	2.38	2.31	2.23	2.16	2.11	2.07	2.03	1.98	1.93	1.88
20	2.35	2.28	2.20	2.12	2.08	2.04	1.99	1.95	1.90	1.84
21	2.32	2.25	2.18	2.10	2.05	2.01	1.96	1.92	1.87	1.81
22	2.30	2.23	2.15	2.07	2.03	1.98	1.94	1.89	1.84	1.78
23	2.27	2.20	2.13	2.05	2.01	1.96	1.91	1.86	1.81	1.76
24	2.25	2.18	2.11	2.03	1.98	1.94	1.89	1.84	1.79	1.73
25	2.24	2.16	2.09	2.01	1.96	1.92	1.87	1.82	1.77	1.71
26	2.22	2.15	2.07	1.99	1.95	1.90	1.85	1.80	1.75	1.69
27	2.20	2.13	2.06	1.97	1.93	1.88	1.84	1.79	1.73	1.67
28	2.19	2.12	2.04	1.96	1.91	1.87	1.82	1.77	1.71	1.65
29	2.18	2.10	2.03	1.94	1.90	1.85	1.81	1.75	1.70	1.64
30	2.16	2.09	2.01	1.93	1.89	1.84	1.79	1.74	1.68	1.62
40	2.08	2.00	1.92	1.84	1.79	1.74	1.69	1.64	1.58	1.51
60	1.99	1.92	1.84	1.75	1.70	1.65	1.59	1.53	1.47	1.39
120	1.91	1.83	1.75	1.66	1.61	1.55	1.50	1.43	1.35	1.25
$\infty$	1.83	1.75	1.67	1.57	1.52	1.46	1.39	1.32	1.22	1.00

TABLE G (continued)

Denominator Degrees of Freedom	$F_{.90}$								
	Numerator Degrees of Freedom								
	1	2	3	4	5	6	7	8	9
1	39.86	49.50	53.59	55.83	57.24	58.20	58.91	59.44	59.86
2	8.53	9.00	9.16	9.24	9.29	9.33	9.35	9.37	9.38
3	5.54	5.46	5.39	5.34	5.31	5.28	5.27	5.25	5.24
4	4.54	4.32	4.19	4.11	4.05	4.01	3.98	3.95	3.94
5	4.06	3.78	3.62	3.52	3.45	3.40	3.37	3.34	3.32
6	3.78	3.46	3.29	3.18	3.11	3.05	3.01	2.98	2.96
7	3.59	3.26	3.07	2.96	2.88	2.83	2.78	2.75	2.72
8	3.46	3.11	2.92	2.81	2.73	2.67	2.62	2.59	2.56
9	3.36	3.01	2.81	2.69	2.61	2.55	2.51	2.47	2.44
10	3.29	2.92	2.73	2.61	2.52	2.46	2.41	2.38	2.35
11	3.23	2.86	2.66	2.54	2.45	2.39	2.34	2.30	2.27
12	3.18	2.81	2.61	2.48	2.39	2.33	2.28	2.24	2.21
13	3.14	2.76	2.56	2.43	2.35	2.28	2.23	2.20	2.16
14	3.10	2.73	2.52	2.39	2.31	2.24	2.19	2.15	2.12
15	3.07	2.70	2.49	2.36	2.27	2.21	2.16	2.12	2.09
16	3.05	2.67	2.46	2.33	2.24	2.18	2.13	2.09	2.06
17	3.03	2.64	2.44	2.31	2.22	2.15	2.10	2.06	2.03
18	3.01	2.62	2.42	2.29	2.20	2.13	2.08	2.04	2.00
19	2.99	2.61	2.40	2.27	2.18	2.11	2.06	2.02	1.98
20	2.97	2.59	2.38	2.25	2.16	2.09	2.04	2.00	1.96
21	2.96	2.57	2.36	2.23	2.14	2.08	2.02	1.98	1.95
22	2.95	2.56	2.35	2.22	2.13	2.06	2.01	1.97	1.93
23	2.94	2.55	2.34	2.21	2.11	2.05	1.99	1.95	1.92
24	2.93	2.54	2.33	2.19	2.10	2.04	1.98	1.94	1.91
25	2.92	2.53	2.32	2.18	2.09	2.02	1.97	1.93	1.89
26	2.91	2.52	2.31	2.17	2.08	2.01	1.96	1.92	1.88
27	2.90	2.51	2.30	2.17	2.07	2.00	1.95	1.91	1.87
28	2.89	2.50	2.29	2.16	2.06	2.00	1.94	1.90	1.87
29	2.89	2.50	2.28	2.15	2.06	1.99	1.93	1.89	1.86
30	2.88	2.49	2.28	2.14	2.05	1.98	1.93	1.88	1.85
40	2.84	2.44	2.23	2.09	2.00	1.93	1.87	1.83	1.79
60	2.79	2.39	2.18	2.04	1.95	1.87	1.82	1.77	1.74
120	2.75	2.35	2.13	1.99	1.90	1.82	1.77	1.72	1.68
$\infty$	2.71	2.30	2.08	1.94	1.85	1.77	1.72	1.67	1.63

**TABLE G (continued)**

Denominator Degrees of Freedom	Numerator Degrees of Freedom									
	10	12	15	20	24	30	40	60	120	$\infty$
1	60.19	60.71	61.22	61.74	62.00	62.26	62.53	62.79	63.06	63.33
2	9.39	9.41	9.42	9.44	9.45	9.46	9.47	9.47	9.48	9.49
3	5.23	5.22	5.20	5.18	5.18	5.17	5.16	5.15	5.14	5.13
4	3.92	3.90	3.87	3.84	3.83	3.82	3.80	3.79	3.78	3.76
5	3.30	3.27	3.24	3.21	3.19	3.17	3.16	3.14	3.12	3.10
6	2.94	2.90	2.87	2.84	2.82	2.80	2.78	2.76	2.74	2.72
7	2.70	2.67	2.63	2.59	2.58	2.56	2.54	2.51	2.49	2.47
8	2.54	2.50	2.46	2.42	2.40	2.38	2.36	2.34	2.32	2.29
9	2.42	2.38	2.34	2.30	2.28	2.25	2.23	2.21	2.18	2.16
10	2.32	2.28	2.24	2.20	2.18	2.16	2.13	2.11	2.08	2.06
11	2.25	2.21	2.17	2.12	2.10	2.08	2.05	2.03	2.00	1.97
12	2.19	2.15	2.10	2.06	2.04	2.01	1.99	1.96	1.93	1.90
13	2.14	2.10	2.05	2.01	1.98	1.96	1.93	1.90	1.88	1.85
14	2.10	2.05	2.01	1.96	1.94	1.91	1.89	1.86	1.83	1.80
15	2.06	2.02	1.97	1.92	1.90	1.87	1.85	1.82	1.79	1.76
16	2.03	1.99	1.94	1.89	1.87	1.84	1.81	1.78	1.75	1.72
17	2.00	1.96	1.91	1.86	1.84	1.81	1.78	1.75	1.72	1.69
18	1.98	1.93	1.89	1.84	1.81	1.78	1.75	1.72	1.69	1.66
19	1.96	1.91	1.86	1.81	1.79	1.76	1.73	1.70	1.67	1.63
20	1.94	1.89	1.84	1.79	1.77	1.74	1.71	1.68	1.64	1.61
21	1.92	1.87	1.83	1.78	1.75	1.72	1.69	1.66	1.62	1.59
22	1.90	1.86	1.81	1.76	1.73	1.70	1.67	1.64	1.60	1.57
23	1.89	1.84	1.80	1.74	1.72	1.69	1.66	1.62	1.59	1.55
24	1.88	1.83	1.78	1.73	1.70	1.67	1.64	1.61	1.57	1.53
25	1.87	1.82	1.77	1.72	1.69	1.66	1.63	1.59	1.56	1.52
26	1.86	1.81	1.76	1.71	1.68	1.65	1.61	1.58	1.54	1.50
27	1.85	1.80	1.75	1.70	1.67	1.64	1.60	1.57	1.53	1.49
28	1.84	1.79	1.74	1.69	1.66	1.63	1.59	1.56	1.52	1.48
29	1.83	1.78	1.73	1.68	1.65	1.62	1.58	1.55	1.51	1.47
30	1.82	1.77	1.72	1.67	1.64	1.61	1.57	1.54	1.50	1.46
40	1.76	1.71	1.66	1.61	1.57	1.54	1.51	1.47	1.42	1.38
60	1.71	1.66	1.60	1.54	1.51	1.48	1.44	1.40	1.35	1.29
120	1.65	1.60	1.55	1.48	1.45	1.41	1.37	1.32	1.26	1.19
$\infty$	1.60	1.55	1.49	1.42	1.38	1.34	1.30	1.24	1.17	1.00

**TABLE H Percentage Points of the Studentized Range for 2 Through 20 Treatments Upper 5% Points**

<b>Error df</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>
1	17.97	26.98	32.82	37.08	40.41	43.12	45.40	47.36	49.07
2	6.08	8.33	9.80	10.88	11.74	12.44	13.03	13.54	13.99
3	4.50	5.91	6.82	7.50	8.04	8.48	8.85	9.18	9.46
4	3.93	5.04	5.76	6.29	6.71	7.05	7.35	7.60	7.83
5	3.64	4.60	5.22	5.67	6.03	6.33	6.58	6.80	6.99
6	3.46	4.34	4.90	5.30	5.63	5.90	6.12	6.32	6.49
7	3.34	4.16	4.68	5.06	5.36	5.61	5.82	6.00	6.16
8	3.26	4.04	4.53	4.89	5.17	5.40	5.60	5.77	5.92
9	3.20	3.95	4.41	4.76	5.02	5.24	5.43	5.59	5.74
10	3.15	3.88	4.33	4.65	4.91	5.12	5.30	5.46	5.60
11	3.11	3.82	4.26	4.57	4.82	5.03	5.20	5.35	5.49
12	3.08	3.77	4.20	4.51	4.75	4.95	5.12	5.27	5.39
13	3.06	3.73	4.15	4.45	4.69	4.88	5.05	5.19	5.32
14	3.03	3.70	4.11	4.41	4.64	4.83	4.99	5.13	5.25
15	3.01	3.67	4.08	4.37	4.59	4.78	4.94	5.08	5.20
16	3.00	3.65	4.05	4.33	4.56	4.74	4.90	5.03	5.15
17	2.98	3.63	4.02	4.30	4.52	4.70	4.86	4.99	5.11
18	2.97	3.61	4.00	4.28	4.49	4.67	4.82	4.96	5.07
19	2.96	3.59	3.98	4.25	4.47	4.65	4.79	4.92	5.04
20	2.95	3.58	3.96	4.23	4.45	4.62	4.77	4.90	5.01
24	2.92	3.53	3.90	4.17	4.37	4.54	4.68	4.81	4.92
30	2.89	3.49	3.85	4.10	4.30	4.46	4.60	4.72	4.82
40	2.86	3.44	3.79	4.04	4.23	4.39	4.52	4.63	4.73
60	2.83	3.40	3.74	3.98	4.16	4.31	4.44	4.55	4.65
120	2.80	3.36	3.68	3.92	4.10	4.24	4.36	4.47	4.56
∞	2.77	3.31	3.63	3.86	4.03	4.17	4.29	4.39	4.47

<b>Error df</b>	<b>11</b>	<b>12</b>	<b>13</b>	<b>14</b>	<b>15</b>	<b>16</b>	<b>17</b>	<b>18</b>	<b>19</b>	<b>20</b>
1	50.59	51.96	53.20	54.33	55.36	56.32	57.22	58.04	58.83	59.56
2	14.39	14.75	15.08	15.38	15.65	15.91	16.14	16.37	16.57	16.77
3	9.72	9.95	10.15	10.35	10.52	10.69	10.84	10.98	11.11	11.24
4	8.03	8.21	8.37	8.52	8.66	8.79	8.91	9.03	9.13	9.23
5	7.17	7.32	7.47	7.60	7.72	7.83	7.93	8.03	8.12	8.21
6	6.65	6.79	6.92	7.03	7.14	7.24	7.34	7.43	7.51	7.59
7	6.30	6.43	6.55	6.66	6.76	6.85	6.94	7.02	7.10	7.17
8	6.05	6.18	6.29	6.39	6.48	6.57	6.65	6.73	6.80	6.87
9	5.87	5.98	6.09	6.19	6.28	6.36	6.44	6.51	6.58	6.64
10	5.72	5.83	5.93	6.03	6.11	6.19	6.27	6.34	6.40	6.47
11	5.61	5.71	5.81	5.90	5.98	6.06	6.13	6.20	6.27	6.33
12	5.51	5.61	5.71	5.80	5.88	5.95	6.02	6.09	6.15	6.21
13	5.43	5.53	5.63	5.71	5.79	5.86	5.93	5.99	6.05	6.11
14	5.36	5.46	5.55	5.64	5.71	5.79	5.85	5.91	5.97	6.03
15	5.31	5.40	5.49	5.57	5.65	5.72	5.78	5.85	5.90	5.96



**TABLE H (continued)**

Error df	11	12	13	14	15	16	17	18	19	20
16	5.26	5.35	5.44	5.52	5.59	5.66	5.73	5.79	5.84	5.90
17	5.21	5.31	5.39	5.47	5.54	5.61	5.67	5.73	5.79	5.84
18	5.17	5.27	5.35	5.43	5.50	5.57	5.63	5.69	5.74	5.79
19	5.14	5.23	5.31	5.39	5.46	5.53	5.59	5.65	5.70	5.75
20	5.11	5.20	5.28	5.36	5.43	5.49	5.55	5.61	5.66	5.71
24	5.01	5.10	5.18	5.25	5.32	5.38	5.44	5.49	5.55	5.59
30	4.92	5.00	5.08	5.15	5.21	5.27	5.33	5.38	5.43	5.47
40	4.82	4.90	4.98	5.04	5.11	5.16	5.22	5.27	5.31	5.36
60	4.73	4.81	4.88	4.94	5.00	5.06	5.11	5.15	5.20	5.24
120	4.64	4.71	4.78	4.84	4.90	4.95	5.00	5.04	5.09	5.13
∞	4.55	4.62	4.68	4.74	4.80	4.85	4.89	4.93	4.97	5.01

**Upper 1% Points**

Error df	2	3	4	5	6	7	8	9	10
1	90.03	135.0	164.3	185.6	202.2	215.8	227.2	237.0	245.6
2	14.04	19.02	22.29	24.72	26.63	28.20	29.53	30.68	31.69
3	8.26	10.62	12.17	13.33	14.24	15.00	15.64	16.20	16.69
4	6.51	8.12	9.17	9.96	10.58	11.10	11.55	11.93	12.27
5	5.70	6.98	7.80	8.42	8.91	9.32	9.67	9.97	10.24
6	5.24	6.33	7.03	7.56	7.97	8.32	8.61	8.87	9.10
7	4.95	5.92	6.54	7.01	7.37	7.68	7.94	8.17	8.37
8	4.75	5.64	6.20	6.62	6.96	7.24	7.47	7.68	7.86
9	4.60	5.43	5.96	6.35	6.66	6.91	7.13	7.33	7.49
10	4.48	5.27	5.77	6.14	6.43	6.67	6.87	7.05	7.21
11	4.39	5.15	5.62	5.97	6.25	6.48	6.67	6.84	6.99
12	4.32	5.05	5.50	5.84	6.10	6.32	6.51	6.67	6.81
13	4.26	4.96	5.40	5.73	5.98	6.19	6.37	6.53	6.67
14	4.21	4.89	5.32	5.63	5.88	6.08	6.26	6.41	6.54
15	4.17	4.84	5.25	5.56	5.80	5.99	6.16	6.31	6.44
16	4.13	4.79	5.19	5.49	5.72	5.92	6.08	6.22	6.35
17	4.10	4.74	5.14	5.43	5.66	5.85	6.01	6.15	6.27
18	4.07	4.70	5.09	5.38	5.60	5.79	5.94	6.08	6.20
19	4.05	4.67	5.05	5.33	5.55	5.73	5.89	6.02	6.14
20	4.02	4.64	5.02	5.29	5.51	5.69	5.84	5.97	6.09
24	3.96	4.55	4.91	5.17	5.37	5.54	5.69	5.81	5.92
30	3.89	4.45	4.80	5.05	5.24	5.40	5.54	5.65	5.76
40	3.82	4.37	4.70	4.93	5.11	5.26	5.39	5.50	5.60
60	3.76	4.28	4.59	4.82	4.99	5.13	5.25	5.36	5.45
120	3.70	4.20	4.50	4.71	4.87	5.01	5.12	5.21	5.30
∞	3.64	4.12	4.40	4.60	4.76	4.88	4.99	5.08	5.16

TABLE H (continued)

Error df	11	12	13	14	15	16	17	18	19	20
1	253.2	260.0	266.2	271.8	277.0	281.8	286.3	290.4	294.3	298.0
2	32.59	33.40	34.13	34.81	35.43	36.00	36.53	37.03	37.50	37.95
3	17.13	17.53	17.89	18.22	18.52	18.81	19.07	19.32	19.55	19.77
4	12.57	12.84	13.09	13.32	13.53	13.73	13.91	14.08	14.24	14.40
5	10.48	10.70	10.89	11.08	11.24	11.40	11.55	11.68	11.81	11.93
6	9.30	9.48	9.65	9.81	9.95	10.08	10.21	10.32	10.43	10.54
7	8.55	8.71	8.86	9.00	9.12	9.24	9.35	9.46	9.55	9.65
8	8.03	8.18	8.31	8.44	8.55	8.66	8.76	8.85	8.94	9.03
9	7.65	7.78	7.91	8.03	8.13	8.23	8.33	8.41	8.49	8.57
10	7.36	7.49	7.60	7.71	7.81	7.91	7.99	8.08	8.15	8.23
11	7.13	7.25	7.36	7.46	7.56	7.65	7.73	7.81	7.88	7.95
12	6.94	7.06	7.17	7.26	7.36	7.44	7.52	7.59	7.66	7.73
13	6.79	6.90	7.01	7.10	7.19	7.27	7.35	7.42	7.48	7.55
14	6.66	6.77	6.87	6.96	7.05	7.13	7.20	7.27	7.33	7.39
15	6.55	6.66	6.76	6.84	6.93	7.00	7.07	7.14	7.20	7.26
16	6.46	6.56	6.66	6.74	6.82	6.90	6.97	7.03	7.09	7.15
17	6.38	6.48	6.57	6.66	6.73	6.81	6.87	6.94	7.00	7.05
18	6.31	6.41	6.50	6.58	6.65	6.73	6.79	6.85	6.91	6.97
19	6.25	6.34	6.43	6.51	6.58	6.65	6.72	6.78	6.84	6.89
20	6.19	6.28	6.37	6.45	6.52	6.59	6.65	6.71	6.77	6.82
24	6.02	6.11	6.19	6.26	6.33	6.39	6.45	6.51	6.56	6.61
30	5.85	5.93	6.01	6.08	6.14	6.20	6.26	6.31	6.36	6.41
40	5.69	5.76	5.83	5.90	5.96	6.02	6.07	6.12	6.16	6.21
60	5.53	5.60	5.67	5.73	5.78	5.84	5.89	5.93	5.97	6.01
120	5.37	5.44	5.50	5.56	5.61	5.66	5.71	5.75	5.79	5.83
∞	5.23	5.29	5.35	5.40	5.45	5.49	5.54	5.57	5.61	5.65

TABLE I Transformation of  $r$  to  $z$  (the Body of the Table Contains Values of  $z = .5[\ln(1 + r)/(1 - r)] = \tanh^{-1} r$  for Corresponding Values of  $r$ , the Correlation Coefficient)

$r$	.00	.01	.02	.03	.04	.05	.06	.07	.08	.09
.0	.00000	.01000	.02000	.03001	.04002	.05004	.06007	.07012	.08017	.09024
.1	.10034	.11045	.12058	.13074	.14093	.15114	.16139	.17167	.18198	.19234
.2	.20273	.21317	.22366	.23419	.24477	.25541	.26611	.27686	.28768	.29857
.3	.30952	.32055	.33165	.34283	.35409	.36544	.37689	.38842	.40006	.41180
.4	.42365	.43561	.44769	.45990	.47223	.48470	.49731	.51007	.52298	.53606
.5	.54931	.56273	.57634	.59014	.60415	.61838	.63283	.64752	.66246	.67767
.6	.69315	.70892	.72500	.74142	.75817	.77530	.79281	.81074	.82911	.84795
.7	.86730	.88718	.90764	.92873	.95048	.97295	.99621	1.02033	1.04537	1.07143
.8	1.09861	1.12703	1.15682	1.18813	1.22117	1.25615	1.29334	1.33308	1.37577	1.42192
.9	1.47222	1.52752	1.58902	1.65839	1.73805	1.83178	1.94591	2.09229	2.29756	2.64665

**TABLE J Significance Tests in a 2 × 2 Contingency Table<sup>a</sup>**

		Probability				
		<i>a</i>	0.05	0.025	0.01	0.005
<b>A = 3 B = 3</b>	3		<b>0</b> .050	—	—	—
<b>A = 4 B = 4</b>	4		<b>0</b> .014	<b>0</b> .014	—	—
<b>3</b>	4		<b>0</b> .029	—	—	—
<b>A = 5 B = 5</b>	5		<b>1</b> .024	<b>1</b> .024	<b>0</b> .004	<b>0</b> .004
	4		<b>0</b> .024	<b>0</b> .024	—	—
	4		<b>1</b> .048	<b>0</b> .008	<b>0</b> .008	—
	4		<b>0</b> .040	—	—	—
	3		<b>0</b> .018	<b>0</b> .018	—	—
	2		<b>0</b> .048	—	—	—
<b>A = 6 B = 6</b>	6		<b>2</b> .030	<b>1</b> .008	<b>1</b> .008	<b>0</b> .001
	5		<b>1</b> .040	<b>0</b> .008	<b>0</b> .008	—
	4		<b>0</b> .030	—	—	—
	5		<b>1</b> .015 <sup>+</sup>	<b>1</b> .015 <sup>+</sup>	<b>0</b> .002	<b>0</b> .002
	5		<b>0</b> .013	<b>0</b> .013	—	—
	4		<b>0</b> .045 <sup>+</sup>	—	—	—
	4		<b>1</b> .033	<b>0</b> .005 <sup>-</sup>	<b>0</b> .005 <sup>-</sup>	<b>0</b> .005 <sup>-</sup>
	5		<b>0</b> .024	<b>0</b> .024	—	—
	3		<b>0</b> .012	<b>0</b> .012	—	—
	5		<b>0</b> .048	—	—	—
	6		<b>0</b> .036	—	—	—
<b>A = 7 B = 7</b>	7		<b>3</b> .035 <sup>-</sup>	<b>2</b> .010 <sup>+</sup>	<b>1</b> .002	<b>1</b> .002
	6		<b>1</b> .015 <sup>-</sup>	<b>1</b> .015 <sup>-</sup>	<b>0</b> .002	<b>0</b> .002
	5		<b>0</b> .010 <sup>+</sup>	<b>0</b> .010 <sup>+</sup>	—	—
	4		<b>0</b> .035 <sup>-</sup>	—	—	—
	6		<b>2</b> .021	<b>2</b> .021	<b>1</b> .005 <sup>-</sup>	<b>1</b> .005 <sup>-</sup>
	6		<b>1</b> .025 <sup>+</sup>	<b>0</b> .004	<b>0</b> .004	<b>0</b> .004
	5		<b>0</b> .016	<b>0</b> .016	—	—
	4		<b>0</b> .049	—	—	—
	5		<b>2</b> .045 <sup>+</sup>	<b>1</b> .010 <sup>+</sup>	<b>0</b> .001	<b>0</b> .001
	6		<b>1</b> .045 <sup>+</sup>	<b>0</b> .008	<b>0</b> .008	—
	5		<b>0</b> .027	—	—	—
	4		<b>1</b> .024	<b>1</b> .024	<b>0</b> .003	<b>0</b> .003
	6		<b>0</b> .015 <sup>+</sup>	<b>0</b> .015 <sup>+</sup>	—	—
	5		<b>0</b> .045 <sup>+</sup>	—	—	—
	3		<b>0</b> .008	<b>0</b> .008	<b>0</b> .008	—
	6		<b>0</b> .033	—	—	—
	7		<b>0</b> .028	—	—	—
<b>A = 8 B = 8</b>	8		<b>4</b> .038	<b>3</b> .013	<b>2</b> .003	<b>2</b> .003
	7		<b>2</b> .020	<b>2</b> .020	<b>1</b> .005 <sup>+</sup>	<b>0</b> .001
	6		<b>1</b> .020	<b>1</b> .020	<b>0</b> .003	<b>0</b> .003
	5		<b>0</b> .013	<b>0</b> .013	—	—
	4		<b>0</b> .038	—	—	—
<b>A = 8 B = 7</b>	8		<b>3</b> .026	<b>2</b> .007	<b>2</b> .007	<b>1</b> .001
	7		<b>2</b> .035 <sup>-</sup>	<b>1</b> .009	<b>1</b> .009	<b>0</b> .001
	6		<b>1</b> .032	<b>0</b> .006	<b>0</b> .006	—
	5		<b>0</b> .019	<b>0</b> .019	—	—
	6		<b>2</b> .015 <sup>-</sup>	<b>2</b> .015 <sup>-</sup>	<b>1</b> .003	<b>1</b> .003

<sup>a</sup>Bold type, for given *a*, *A*, and *B*, shows the value of *b* (< *a*), which is just significant at the probability level quoted (single-tail test). Small type, for given *A*, *B*, and *r* = *a* + *b*, shows the exact probability (if there is independence) that *b* is equal to or less than the integer shown in bold type.



TABLE J (continued)

		Probability			
	<i>a</i>	0.05	0.025	0.01	0.005
	7	1 <sub>.016</sub>	1 <sub>.016</sub>	0 <sub>.002</sub>	0 <sub>.002</sub>
	6	0 <sub>.009</sub>	0 <sub>.009</sub>	0 <sub>.009</sub>	—
	5	0 <sub>.028</sub>	—	—	—
5	8	2 <sub>.035<sup>-</sup></sub>	1 <sub>.007</sub>	1 <sub>.007</sub>	0 <sub>.001</sub>
	7	1 <sub>.032</sub>	0 <sub>.005<sup>-</sup></sub>	0 <sub>.005<sup>-</sup></sub>	0 <sub>.005<sup>-</sup></sub>
	6	0 <sub>.016</sub>	0 <sub>.016</sub>	—	—
	5	0 <sub>.044</sub>	—	—	—
4	8	1 <sub>.018</sub>	1 <sub>.018</sub>	0 <sub>.002</sub>	0 <sub>.002</sub>
	7	0 <sub>.010<sup>+</sup></sub>	0 <sub>.010<sup>+</sup></sub>	—	—
	6	0 <sub>.030</sub>	—	—	—
3	8	0 <sub>.006</sub>	0 <sub>.006</sub>	0 <sub>.006</sub>	—
	7	0 <sub>.024</sub>	0 <sub>.024</sub>	—	—
2	8	0 <sub>.022</sub>	0 <sub>.022</sub>	—	—
A = 9 B = 9	9	5 <sub>.041</sub>	4 <sub>.015<sup>-</sup></sub>	3 <sub>.005<sup>-</sup></sub>	3 <sub>.005<sup>-</sup></sub>
	8	3 <sub>.025<sup>-</sup></sub>	3 <sub>.025<sup>-</sup></sub>	2 <sub>.008</sub>	1 <sub>.002</sub>
	7	2 <sub>.028</sub>	1 <sub>.008</sub>	1 <sub>.008</sub>	0 <sub>.001</sub>
	6	1 <sub>.025<sup>-</sup></sub>	1 <sub>.025<sup>-</sup></sub>	0 <sub>.005<sup>-</sup></sub>	0 <sub>.005<sup>-</sup></sub>
	5	0 <sub>.015<sup>-</sup></sub>	0 <sub>.015<sup>-</sup></sub>	—	—
	4	0 <sub>.041</sub>	—	—	—
8	9	4 <sub>.029</sub>	3 <sub>.009</sub>	3 <sub>.009</sub>	2 <sub>.002</sub>
	8	3 <sub>.043</sub>	2 <sub>.013</sub>	1 <sub>.003</sub>	1 <sub>.003</sub>
	7	2 <sub>.044</sub>	1 <sub>.012</sub>	0 <sub>.002</sub>	0 <sub>.002</sub>
	6	1 <sub>.036</sub>	0 <sub>.007</sub>	0 <sub>.007</sub>	—
	5	0 <sub>.020</sub>	0 <sub>.020</sub>	—	—
7	9	3 <sub>.019</sub>	3 <sub>.019</sub>	2 <sub>.005<sup>-</sup></sub>	2 <sub>.005<sup>-</sup></sub>
	8	2 <sub>.024</sub>	2 <sub>.024</sub>	1 <sub>.006</sub>	0 <sub>.001</sub>
	7	1 <sub>.020</sub>	1 <sub>.020</sub>	0 <sub>.003</sub>	0 <sub>.003</sub>
	6	0 <sub>.010<sup>+</sup></sub>	0 <sub>.010<sup>+</sup></sub>	—	—
	5	0 <sub>.029</sub>	—	—	—
6	9	3 <sub>.044</sub>	2 <sub>.011</sub>	1 <sub>.002</sub>	1 <sub>.002</sub>
	8	2 <sub>.047</sub>	1 <sub>.011</sub>	0 <sub>.001</sub>	0 <sub>.001</sub>
	7	1 <sub>.035<sup>-</sup></sub>	0 <sub>.006</sub>	0 <sub>.006</sub>	—
	6	0 <sub>.017</sub>	0 <sub>.017</sub>	—	—
	5	0 <sub>.042</sub>	—	—	—
5	9	2 <sub>.027</sub>	1 <sub>.005<sup>-</sup></sub>	1 <sub>.005<sup>-</sup></sub>	1 <sub>.005<sup>-</sup></sub>
	8	1 <sub>.023</sub>	1 <sub>.023</sub>	0 <sub>.003</sub>	0 <sub>.003</sub>
	7	0 <sub>.010<sup>+</sup></sub>	0 <sub>.010<sup>+</sup></sub>	—	—
	6	0 <sub>.028</sub>	—	—	—
4	9	1 <sub>.014</sub>	1 <sub>.014</sub>	0 <sub>.001</sub>	0 <sub>.001</sub>
	8	0 <sub>.007</sub>	0 <sub>.007</sub>	0 <sub>.007</sub>	—
	7	0 <sub>.021</sub>	0 <sub>.021</sub>	—	—
	6	0 <sub>.049</sub>	—	—	—
3	9	1 <sub>.045<sup>+</sup></sub>	0 <sub>.005<sup>-</sup></sub>	0 <sub>.005<sup>-</sup></sub>	0 <sub>.005<sup>-</sup></sub>
	8	0 <sub>.018</sub>	0 <sub>.018</sub>	—	—
	7	0 <sub>.045<sup>+</sup></sub>	—	—	—
2	9	0 <sub>.018</sub>	0 <sub>.018</sub>	—	—
A = 10 B = 10	10	6 <sub>.043</sub>	5 <sub>.016</sub>	4 <sub>.005<sup>+</sup></sub>	3 <sub>.002</sub>
	9	4 <sub>.029</sub>	3 <sub>.010<sup>-</sup></sub>	3 <sub>.010<sup>-</sup></sub>	2 <sub>.003</sub>
	8	3 <sub>.035<sup>-</sup></sub>	2 <sub>.012</sub>	1 <sub>.003</sub>	1 <sub>.003</sub>
	7	2 <sub>.035<sup>-</sup></sub>	1 <sub>.010<sup>-</sup></sub>	1 <sub>.010<sup>-</sup></sub>	0 <sub>.002</sub>

**TABLE J (continued)**

		Probability				
		<b>a</b>	<b>0.05</b>	<b>0.025</b>	<b>0.01</b>	<b>0.005</b>
<b>A = 10 B = 9</b>		6	1.029	0.005 <sup>+</sup>	0.005 <sup>+</sup>	—
		5	0.016	0.016	—	—
		4	0.043	—	—	—
		10	5.033	4.011	3.003	3.003
		9	4.050 <sup>-</sup>	3.017	2.005 <sup>-</sup>	2.005 <sup>-</sup>
		8	2.019	2.019	1.004	1.004
		7	1.015 <sup>-</sup>	1.015 <sup>-</sup>	0.002	0.002
		6	1.040	0.008	0.008	—
		5	0.022	0.022	—	—
		8	10	4.023	4.023	3.007
		9	3.032	2.009	2.009	1.002
		8	2.031	1.008	1.008	0.001
		7	1.023	1.023	0.004	0.004
		6	0.011	0.011	—	—
		5	0.029	—	—	—
	7	10	3.015 <sup>-</sup>	3.015 <sup>-</sup>	2.003	2.003
		9	2.018	2.018	1.004	1.004
		8	1.013	1.013	0.002	0.002
		7	1.036	0.006	0.006	—
		6	0.017	0.017	—	—
		5	0.041	—	—	—
	6	10	3.036	2.008	2.008	1.001
		9	2.036	1.008	1.008	0.001
		8	1.024	1.024	0.003	0.003
		7	0.010 <sup>+</sup>	0.010 <sup>+</sup>	—	—
		6	0.026	—	—	—
	5	10	2.022	2.022	1.004	1.004
		9	1.017	1.017	0.002	0.002
		8	1.047	0.007	0.007	—
		7	0.019	0.019	—	—
		6	0.042	—	—	—
	4	10	1.011	1.011	0.001	0.001
		9	1.041	0.005 <sup>-</sup>	0.005 <sup>-</sup>	0.005 <sup>-</sup>
		8	0.015 <sup>-</sup>	0.015 <sup>-</sup>	—	—
		7	0.035 <sup>-</sup>	—	—	—
	3	10	1.038	0.003	0.003	0.003
		9	0.014	0.014	—	—
		8	0.035 <sup>-</sup>	—	—	—
	2	10	0.015 <sup>+</sup>	0.015 <sup>+</sup>	—	—
		9	0.045 <sup>+</sup>	—	—	—
	<b>A = 11 B = 11</b>	11	7.045 <sup>+</sup>	6.018	5.006	4.002
		10	5.032	4.012	3.004	3.004
		9	4.040	3.015 <sup>-</sup>	2.004	2.004
		8	3.043	2.015 <sup>-</sup>	1.004	1.004
		7	2.040	1.012	0.002	0.002
		6	1.032	0.006	0.006	—
		5	0.018	0.018	—	—
		4	0.045 <sup>+</sup>	—	—	—
	10	11	6.035 <sup>+</sup>	5.012	4.004	4.004
		10	4.021	4.021	3.007	2.002

TABLE J (continued)

		Probability					
		a	0.05	0.025	0.01	0.005	
<b>9</b>		9	3.024	3.024	2.007	1.002	
		8	2.023	2.023	1.006	0.001	
		7	1.017	1.017	0.003	0.003	
		6	1.043	0.009	0.009	—	
		5	0.023	0.023	—	—	
		11	5.026	4.008	4.008	3.002	
		10	4.038	3.012	2.003	2.003	
		9	3.040	2.012	1.003	1.003	
		8	2.035 <sup>-</sup>	1.009	1.009	0.001	
		7	1.025 <sup>-</sup>	1.025 <sup>-</sup>	0.004	0.004	
		6	0.012	0.012	—	—	
	<b>A = 11 B = 8</b>		5	0.030	—	—	—
		11	4.018	4.018	3.005 <sup>-</sup>	3.005 <sup>-</sup>	
		10	3.024	3.024	2.006	1.001	
		9	2.022	2.022	1.005 <sup>-</sup>	1.005 <sup>-</sup>	
		8	1.015 <sup>-</sup>	1.015 <sup>-</sup>	0.002	0.002	
		7	1.037	0.007	0.007	—	
		6	0.017	0.017	—	—	
		5	0.040	—	—	—	
		11	4.043	3.033	2.032	2.032	
		10	3.047	2.013	1.002	1.002	
		9	2.039	1.009	1.009	0.001	
		8	1.025 <sup>-</sup>	1.025 <sup>-</sup>	0.004	0.004	
<b>7</b>		7	0.010 <sup>+</sup>	0.010 <sup>+</sup>	—	—	
		6	0.025 <sup>-</sup>	0.025 <sup>-</sup>	—	—	
		11	3.029	2.006	2.006	1.001	
		10	2.028	1.005 <sup>+</sup>	1.005 <sup>+</sup>	0.001	
		9	1.018	1.018	0.002	0.002	
		8	1.043	0.007	0.007	—	
		7	0.017	0.017	—	—	
		6	0.037	—	—	—	
		11	2.018	2.018	1.003	1.003	
		10	1.013	1.013	0.001	0.001	
		9	1.036	0.005 <sup>-</sup>	0.005 <sup>-</sup>	0.005 <sup>-</sup>	
		8	0.013	0.013	—	—	
<b>6</b>		7	0.029	—	—	—	
		11	1.009	1.009	1.009	0.001	
		10	1.033	0.004	0.004	0.004	
		9	0.011	0.011	—	—	
		8	0.026	—	—	—	
		11	1.033	0.003	0.003	0.003	
		10	0.011	0.011	—	—	
		9	0.027	—	—	—	
		11	0.013	0.013	—	—	
		10	0.038	—	—	—	
	<b>A = 12 B = 12</b>		12	8.047	7.019	6.007	5.002
			11	6.034	5.014	4.005 <sup>-</sup>	4.005 <sup>-</sup>
		10	5.045 <sup>-</sup>	4.018	3.006	2.002	
		9	4.050 <sup>-</sup>	3.020	2.006	1.001	
		8	3.050 <sup>-</sup>	2.018	1.005 <sup>-</sup>	1.005 <sup>-</sup>	

**TABLE J (continued)**

		Probability					
		<i>a</i>	0.05	0.025	0.01	0.005	
<b>11</b>		7	2.045 <sup>-</sup>	1.014	0.002	0.002	
		6	1.034	0.007	0.007	—	
		5	0.019	0.019	—	—	
		4	0.047	—	—	—	
		12	7.037	6.014	5.005 <sup>-</sup>	5.005 <sup>-</sup>	
		11	5.024	5.024	4.008	3.002	
		10	4.029	3.010 <sup>+</sup>	2.003	2.003	
		9	3.030	2.009	2.009	1.002	
		8	2.026	1.007	1.007	0.001	
		7	1.019	1.019	0.003	0.003	
		6	1.045 <sup>-</sup>	0.009	0.009	—	
		5	0.024	0.024	—	—	
<b>10</b>		12	6.029	5.010 <sup>-</sup>	5.010 <sup>-</sup>	4.003	
		11	5.043	4.015 <sup>+</sup>	3.005 <sup>-</sup>	3.005 <sup>-</sup>	
		10	4.048	3.017	2.005 <sup>-</sup>	2.005 <sup>-</sup>	
		9	3.046	2.015 <sup>-</sup>	1.004	1.004	
		8	2.038	1.010 <sup>+</sup>	0.002	0.002	
		7	1.026	0.005 <sup>-</sup>	0.005 <sup>-</sup>	0.005 <sup>-</sup>	
		6	0.012	0.012	—	—	
		5	0.030	—	—	—	
	<b>A = 12 B = 9</b>		12	5.021	5.021	4.006	3.002
			11	4.029	3.009	3.009	2.002
			10	3.029	2.008	2.008	1.002
			9	2.024	2.024	1.006	0.001
		8	1.016	1.016	0.002	0.002	
		7	1.037	0.007	0.007	—	
		6	0.017	0.017	—	—	
		5	0.039	—	—	—	
<b>8</b>			12	5.049	4.014	3.004	3.004
			11	3.018	3.018	2.004	2.004
			10	2.015 <sup>+</sup>	2.015 <sup>+</sup>	1.003	1.003
			9	2.040	1.010 <sup>-</sup>	1.010 <sup>-</sup>	0.001
		8	1.025 <sup>-</sup>	1.025 <sup>-</sup>	0.004	0.004	
		7	0.010 <sup>+</sup>	0.010 <sup>+</sup>	—	—	
		6	0.024	0.024	—	—	
	<b>7</b>		12	4.036	3.009	3.009	2.002
			11	3.038	2.010 <sup>-</sup>	2.010 <sup>-</sup>	1.002
			10	2.029	1.006	1.006	0.001
			9	1.017	1.017	0.002	0.002
			8	1.040	0.007	0.007	—
		7	0.016	0.016	—	—	
		6	0.034	—	—	—	
<b>6</b>			12	3.025 <sup>-</sup>	3.025 <sup>-</sup>	2.005 <sup>-</sup>	2.005 <sup>-</sup>
			11	2.022	2.022	1.004	1.004
			10	1.013	1.013	0.002	0.002
			9	1.032	0.005 <sup>-</sup>	0.005 <sup>-</sup>	0.005 <sup>-</sup>
			8	0.011	0.011	—	—
		7	0.025 <sup>-</sup>	0.025 <sup>-</sup>	—	—	
		6	0.050 <sup>-</sup>	—	—	—	
	<b>5</b>		12	2.015 <sup>-</sup>	2.015 <sup>-</sup>	1.002	1.002



TABLE J (continued)

		Probability			
	<i>a</i>	0.05	0.025	0.01	0.005
	11	1.010 <sup>-</sup>	1.010 <sup>-</sup>	1.010 <sup>-</sup>	0.001
	10	1.028	0.003	0.003	0.003
	9	0.009	0.009	0.009	—
	8	0.020	0.020	—	—
	7	0.041	—	—	—
<b>4</b>	12	2.050	1.007	1.007	0.001
	11	1.027	0.003	0.003	0.003
	10	0.008	0.008	0.008	—
	9	0.019	0.019	—	—
	8	0.038	—	—	—
<b>3</b>	12	1.029	0.002	0.002	0.002
	11	0.009	0.009	0.009	—
	10	0.022	0.022	—	—
	9	0.044	—	—	—
<b>2</b>	12	0.011	0.011	—	—
	11	0.033	—	—	—
<b>A = 13 B = 13</b>	13	9.048	8.020	7.007	6.003
	12	7.037	6.015 <sup>+</sup>	5.006	4.002
	11	6.048	5.021	4.008	3.002
	10	4.024	4.024	3.008	2.002
	9	3.024	3.024	2.008	1.002
	8	2.021	2.021	1.006	0.001
	7	2.048	1.015 <sup>+</sup>	0.003	0.003
	6	1.037	0.007	0.007	—
	5	0.020	0.020	—	—
	4	0.048	—	—	—
<b>12</b>	13	8.039	7.015 <sup>-</sup>	6.005 <sup>+</sup>	5.002
	12	6.027	5.010 <sup>-</sup>	5.010 <sup>-</sup>	4.003
	11	5.033	4.013	3.004	3.004
<b>A = 13 B = 12</b>	10	4.036	3.013	2.004	2.004
	9	3.034	2.011	1.003	1.003
	8	2.029	1.008	1.008	0.001
	7	1.020	1.020	0.004	0.004
	6	1.046	0.010 <sup>-</sup>	0.010 <sup>-</sup>	—
	5	0.024	0.024	—	—
<b>11</b>	13	7.031	6.011	5.003	5.003
	12	6.048	5.018	4.006	3.002
	11	4.021	4.021	3.007	2.002
	10	3.021	3.021	2.006	1.001
	9	3.050 <sup>-</sup>	2.017	1.004	1.004
	8	2.040	1.011	0.002	0.002
	7	1.027	0.005 <sup>-</sup>	0.005 <sup>-</sup>	0.005 <sup>-</sup>
	6	0.013	0.013	—	—
	5	0.030	—	—	—
<b>10</b>	13	6.024	6.024	5.007	4.002
	12	5.035 <sup>-</sup>	4.012	3.003	3.003
	11	4.037	3.012	2.003	2.003
	10	3.033	2.010 <sup>+</sup>	1.002	1.002
	9	2.026	1.006	1.006	0.001
	8	1.017	1.017	0.003	0.003

**TABLE J (continued)**

	<i>a</i>	Probability			
		0.05	0.025	0.01	0.005
	7	1.038	0.007	0.007	—
	6	0.017	0.017	—	—
	5	0.038	—	—	—
<b>9</b>	13	5.017	5.017	4.005 <sup>-</sup>	4.005 <sup>-</sup>
	12	4.023	4.023	3.007	2.001
	11	3.022	3.022	2.006	1.001
	10	2.017	2.017	1.004	1.004
	9	2.040	1.010 <sup>+</sup>	0.001	0.001
	8	1.025 <sup>-</sup>	1.025 <sup>-</sup>	0.004	0.004
	7	0.010 <sup>+</sup>	0.010 <sup>+</sup>	—	—
	6	0.023	0.023	—	—
	5	0.049	—	—	—
<b>8</b>	13	5.042	4.012	3.003	3.003
	12	4.047	3.014	2.003	2.003
	11	3.041	2.011	1.002	1.002
	10	2.029	1.007	1.007	0.001
	9	1.017	1.017	0.002	0.002
	8	1.037	0.006	0.006	—
	7	0.015 <sup>-</sup>	0.015 <sup>-</sup>	—	—
	6	0.032	—	—	—
<b>7</b>	13	4.031	3.007	3.007	2.001
	12	3.031	2.007	2.007	1.001
	11	2.022	2.022	1.004	1.004
	10	1.012	1.012	0.002	0.002
	9	1.029	0.004	0.004	0.004
	8	0.010 <sup>+</sup>	0.010 <sup>+</sup>	—	—
	7	0.022	0.022	—	—
	6	0.044	—	—	—
<b>6</b>	13	3.021	3.021	2.004	2.004
	12	2.017	2.017	1.003	1.003
	11	2.046	1.010 <sup>-</sup>	1.010 <sup>-</sup>	0.001
	10	1.024	1.024	0.003	0.003
	9	1.050 <sup>-</sup>	0.008	0.008	—
	8	0.017	0.017	—	—
	7	0.034	—	—	—
<b>5</b>	13	2.012	2.012	1.002	1.002
	12	2.044	1.008	1.008	0.001
	11	1.022	1.022	0.002	0.002
	10	1.047	0.007	0.007	—
	9	0.015 <sup>-</sup>	0.015 <sup>-</sup>	—	—
	8	0.029	—	—	—
<b>A = 13 B = 4</b>	13	2.044	1.006	1.006	0.000
	12	1.022	1.022	0.002	0.002
	11	0.006	0.006	0.006	—
	10	0.015 <sup>-</sup>	0.015 <sup>-</sup>	—	—
	9	0.029	—	—	—
<b>3</b>	13	1.025	1.025	0.002	0.002
	12	0.007	0.007	0.007	—
	11	0.018	0.018	—	—
	10	0.036	—	—	—

TABLE J (continued)

		Probability				
	<i>a</i>	0.05	0.025	0.01	0.005	
<b>2</b>	13	0.010 <sup>-</sup>	0.010 <sup>-</sup>	0.010 <sup>-</sup>	—	
	12	0.029	—	—	—	
	<b>A = 14 B = 14</b>	14	10.049	9.020	8.008	7.003
		13	8.038	7.016	6.006	5.002
	12	6.023	6.023	5.009	4.003	
	11	5.027	4.011	3.004	3.004	
	10	4.028	3.011	2.003	2.003	
	9	3.027	2.009	2.009	1.002	
	8	2.023	2.023	1.006	0.001	
	7	1.016	1.016	0.003	0.003	
	6	1.038	0.008	0.008	—	
	5	0.020	0.020	—	—	
	4	0.049	—	—	—	
	<b>13</b>	14	9.041	8.016	7.006	6.002
13		7.029	6.011	5.004	5.004	
12		6.037	5.015 <sup>+</sup>	4.005 <sup>+</sup>	3.002	
11		5.041	4.017	3.006	2.001	
10		4.041	3.016	2.005 <sup>-</sup>	2.005 <sup>-</sup>	
9		3.038	2.013	1.003	1.003	
8		2.031	1.009	1.009	0.001	
7		1.021	1.021	0.004	0.004	
6		1.048	0.010 <sup>+</sup>	—	—	
5		0.025 <sup>-</sup>	0.025 <sup>-</sup>	—	—	
<b>12</b>	14	8.033	7.012	6.004	6.004	
	13	6.021	6.021	5.007	4.002	
	12	5.025 <sup>+</sup>	4.009	4.009	3.003	
	11	4.026	3.009	3.009	2.002	
	10	3.024	3.024	2.007	1.002	
	9	2.019	2.019	1.005 <sup>-</sup>	1.005 <sup>-</sup>	
	8	2.042	1.012	0.002	0.002	
	7	1.028	0.005 <sup>+</sup>	0.005 <sup>+</sup>	—	
	6	0.013	0.013	—	—	
	5	0.030	—	—	—	
<b>11</b>	14	7.026	6.009	6.009	5.003	
	13	6.039	5.014	4.004	4.004	
	12	5.043	4.016	3.005 <sup>-</sup>	3.005 <sup>-</sup>	
	11	4.042	3.015 <sup>-</sup>	2.004	2.004	
	10	3.036	2.011	1.003	1.003	
	9	2.027	1.007	1.007	0.001	
	8	1.017	1.017	0.003	0.003	
	7	1.038	0.007	0.007	—	
	6	0.017	0.017	—	—	
5	0.038	—	—	—		
<b>10</b>	14	6.020	6.020	5.006	4.002	
	13	5.028	4.009	4.009	3.002	
	12	4.028	3.009	3.009	2.002	
	11	3.024	3.024	2.007	1.001	
	10	2.018	2.018	1.004	1.004	
	9	2.040	1.011	0.002	0.002	
8	1.024	1.024	0.004	0.004		

**TABLE J (continued)**

		Probability				
		<i>a</i>	0.05	0.025	0.01	0.005
<b>A = 14 B = 10</b>	<b>9</b>	7	0.010 <sup>-</sup>	0.010 <sup>-</sup>	0.010 <sup>-</sup>	—
		6	0.022	0.022	—	—
		5	0.047	—	—	—
		14	6.047	5.014	4.004	4.004 <sup>-</sup>
		13	4.018	4.018	3.005 <sup>-</sup>	3.005 <sup>-</sup>
		12	3.017	3.017	2.004	2.004 <sup>-</sup>
		11	3.042	2.012	1.002	1.002
		10	2.029	1.007	1.007	0.001
		9	1.017	1.017	0.002	0.002
		8	1.036	0.006	0.006	—
		7	0.014	0.014	—	—
		6	0.030	—	—	—
		14	5.036	4.010 <sup>-</sup>	4.010 <sup>-</sup>	3.002
		13	4.039	3.011	2.002	2.002
12	3.032	2.008	2.008	1.001		
11	2.022	2.022	1.005 <sup>-</sup>	1.005 <sup>-</sup>		
10	2.048	1.012	0.002	0.002		
9	1.026	0.004	0.004	0.004		
8	0.009	0.009	0.009	—		
7	0.020	0.020	—	—		
6	0.040	—	—	—		
<b>7</b>	14	4.026	3.006	3.006	2.001	
	13	3.025	2.006	2.006	1.001	
	12	2.017	2.017	1.003	1.003	
	11	2.041	1.009	1.009	0.001	
	10	1.021	1.021	0.003	0.003	
	9	1.043	0.007	0.007	—	
	8	0.015 <sup>-</sup>	0.015 <sup>-</sup>	—	—	
	7	0.030	—	—	—	
	14	3.018	3.018	2.003	2.003	
	13	2.014	2.014	1.002	1.002	
	12	2.037	1.007	1.007	0.001	
	11	1.018	1.018	0.002	0.002	
	10	1.038	0.005 <sup>+</sup>	0.005 <sup>+</sup>	—	
	9	0.012	0.012	—	—	
8	0.024	0.024	—	—		
7	0.044	—	—	—		
<b>5</b>	14	2.010 <sup>+</sup>	2.010 <sup>+</sup>	1.001	1.001	
	13	2.037	1.006	1.006	0.001	
	12	1.017	1.017	0.002	0.002	
	11	1.038	0.005 <sup>-</sup>	0.005 <sup>-</sup>	0.005 <sup>-</sup>	
	10	0.011	0.011	—	—	
	9	0.022	0.022	—	—	
	8	0.040	—	—	—	
	14	2.039	1.005 <sup>-</sup>	1.005 <sup>-</sup>	1.005 <sup>-</sup>	
	13	1.019	1.019	0.002	0.002	
	12	1.044	0.005 <sup>-</sup>	0.005 <sup>-</sup>	0.005 <sup>-</sup>	
	11	0.011	0.011	—	—	
	10	0.023	0.023	—	—	
	9	0.041	—	—	—	



TABLE J (continued)

		Probability				
	<i>a</i>	0.05	0.025	0.01	0.005	
<b>3</b>	14	1.022	1.022	0.001	0.001	
	13	0.006	0.006	0.006	—	
	12	0.015 <sup>-</sup>	0.015 <sup>-</sup>	—	—	
	11	0.029	—	—	—	
<b>2</b>	14	0.008	0.008	0.008	—	
	13	0.025	0.025	—	—	
	12	0.050	—	—	—	
<b>A = 15 B = 15</b>	15	11.050 <sup>-</sup>	10.021	9.008	8.003	
	14	9.040	8.018	7.007	6.003	
	13	7.025 <sup>+</sup>	6.010 <sup>+</sup>	5.004	5.004	
	12	6.030	5.013	4.005 <sup>-</sup>	4.005 <sup>-</sup>	
	11	5.033	4.013	3.005 <sup>-</sup>	3.005 <sup>-</sup>	
<b>A = 15 B = 15</b>	10	4.033	3.013	2.004	2.004	
	9	3.030	2.010 <sup>+</sup>	1.003	1.003	
	8	2.025 <sup>+</sup>	1.007	1.007	0.001	
	7	1.018	1.018	0.003	0.003	
	6	1.040	0.008	0.008	—	
	5	0.021	0.021	—	—	
	4	0.050 <sup>-</sup>	—	—	—	
	<b>14</b>	15	10.042	9.017	8.006	7.002
		14	8.031	7.013	6.005 <sup>-</sup>	6.005 <sup>-</sup>
		13	7.041	6.017	5.007	4.002
12		6.046	5.020	4.007	3.002	
11		5.048	4.020	3.007	2.002	
10		4.046	3.018	2.006	1.001	
9		3.041	2.014	1.004	1.004	
8		2.033	1.009	1.009	0.001	
7		1.022	1.022	0.004	0.004	
6		1.049	0.011	—	—	
<b>13</b>	15	9.035 <sup>-</sup>	8.013	7.005 <sup>-</sup>	7.005 <sup>-</sup>	
	14	7.023	7.023	6.009	5.003	
	13	6.029	5.011	4.004	4.004	
	12	5.031	4.012	3.004	3.004	
	11	4.030	3.011	2.003	2.003	
	10	3.026	2.008	2.008	1.002	
	9	2.020	2.020	1.005 <sup>+</sup>	0.001	
	8	2.043	1.013	0.002	0.002	
	7	1.029	0.005 <sup>+</sup>	0.005 <sup>+</sup>	—	
	6	0.013	0.013	—	—	
<b>12</b>	15	8.028	7.010 <sup>-</sup>	7.010 <sup>-</sup>	6.003	
	14	7.043	6.016	5.006	4.002	
	13	6.049	5.019	4.007	3.002	
	12	5.049	4.019	3.006	2.002	
	11	4.045 <sup>+</sup>	3.017	2.005 <sup>-</sup>	2.005 <sup>-</sup>	
	10	3.038	2.012	1.003	1.003	
	9	2.028	1.007	1.007	0.001	
	8	1.018	1.018	0.003	0.003	
	7	1.038	0.007	0.007	—	

**TABLE J (continued)**

		Probability				
		<i>a</i>	0.05	0.025	0.01	0.005
<b>11</b>		6	0.017	0.017	—	—
		5	0.037	—	—	—
		15	7.022	7.022	6.007	5.002
		14	6.032	5.011	4.003	4.003
		13	5.034	4.012	3.003	3.003
		12	4.032	3.010 <sup>+</sup>	2.003	2.003
		11	3.026	2.008	2.008	1.002
		10	2.019	2.019	1.004	1.004
		9	2.040	1.011	0.002	0.002
		8	1.024	1.024	0.004	0.004
<b>10</b>		7	1.049	0.010 <sup>-</sup>	0.010 <sup>-</sup>	—
		6	0.022	0.022	—	—
		5	0.046	—	—	—
		15	6.017	6.017	5.005 <sup>-</sup>	5.005 <sup>-</sup>
		14	5.023	5.023	4.007	3.002
		13	4.022	4.022	3.007	2.001
		12	3.018	3.018	2.005 <sup>-</sup>	2.005 <sup>-</sup>
		11	3.042	2.013	1.003	1.003
		10	2.029	1.007	1.007	0.001
		9	1.016	1.016	0.002	0.002
<b>A = 15 B = 10</b>		8	1.034	0.006	0.006	—
		7	0.013	0.013	—	—
		6	0.028	—	—	—
		15	6.042	5.012	4.003	4.003
		14	5.047	4.015 <sup>-</sup>	3.004	3.004
		13	4.042	3.013	2.003	2.003
		12	3.032	2.009	2.009	1.002
		11	2.021	2.021	1.005 <sup>-</sup>	1.005 <sup>-</sup>
		10	2.045 <sup>-</sup>	1.011	0.002	0.002
		9	1.024	1.024	0.004	0.004
<b>9</b>		8	1.048	0.009	0.009	—
		7	0.019	0.019	—	—
		6	0.037	—	—	—
		15	5.032	4.008	4.008	3.002
		14	4.033	3.009	3.009	2.002
		13	3.026	2.006	2.006	1.001
		12	2.017	2.017	1.003	1.003
		11	2.037	1.008	1.008	0.001
		10	1.019	1.019	0.003	0.003
		9	1.038	0.006	0.006	—
<b>8</b>		8	0.013	0.013	—	—
		7	0.026	—	—	—
		6	0.050 <sup>-</sup>	—	—	—
		15	4.023	4.023	3.005 <sup>-</sup>	3.005 <sup>-</sup>
		14	3.021	3.021	2.004	2.004
		13	2.014	2.014	1.002	1.002
		12	2.032	1.007	1.007	0.001
		11	1.015 <sup>+</sup>	1.015 <sup>+</sup>	0.002	0.002
		10	1.032	0.005 <sup>-</sup>	0.005 <sup>-</sup>	0.005 <sup>-</sup>
		9	0.010 <sup>+</sup>	0.010 <sup>+</sup>	—	—

TABLE J (continued)

		Probability			
	<i>a</i>	0.05	0.025	0.01	0.005
	8	0.020	0.020	—	—
	7	0.038	—	—	—
6	15	3.015 <sup>+</sup>	3.015 <sup>+</sup>	2.003	2.003
	14	2.011	2.011	1.002	1.002
	13	2.031	1.006	1.006	0.001
	12	1.014	1.014	0.002	0.002
	11	1.029	0.004	0.004	0.004
	10	0.009	0.009	0.009	—
	9	0.017	0.017	—	—
	8	0.032	—	—	—
5	15	2.009	2.009	2.009	1.001
	14	2.032	1.005 <sup>-</sup>	1.005 <sup>-</sup>	1.005 <sup>-</sup>
	13	1.014	1.014	0.001	0.001
	12	1.031	0.004	0.004	0.004
	11	0.008	0.008	0.008	—
	10	0.016	0.016	—	—
	9	0.030	—	—	—
4	15	2.035 <sup>+</sup>	1.004	1.004	1.004
	14	1.016	1.016	0.001	0.001
	13	1.037	0.004	0.004	0.004
	12	0.009	0.009	0.009	—
	11	0.018	0.018	—	—
	10	0.033	—	—	—
3	15	1.020	1.020	0.001	0.001
	14	0.005 <sup>-</sup>	0.005 <sup>-</sup>	0.005 <sup>-</sup>	0.005 <sup>-</sup>
	13	0.012	0.012	—	—
	12	0.025 <sup>-</sup>	0.025 <sup>-</sup>	—	—
	11	0.043	—	—	—
2	15	0.007	0.007	0.007	—
	14	0.022	0.022	—	—
	13	0.044	—	—	—
<i>A = 16 B = 16</i>	16	11.022	11.022	10.009	9.003
	15	10.041	9.019	8.008	7.003
	14	8.027	7.012	6.005 <sup>-</sup>	6.005 <sup>-</sup>
	13	7.033	6.015 <sup>-</sup>	5.006	4.002
	12	6.037	5.016	4.006	3.002
	11	5.038	4.016	3.006	2.002
	10	4.037	3.015 <sup>-</sup>	2.005 <sup>-</sup>	2.005 <sup>-</sup>
	9	3.033	2.012	1.003	1.003
	8	2.027	1.008	1.008	0.001
	7	1.019	1.019	0.003	0.003
	6	1.041	0.009	0.009	—
	5	0.022	0.022	—	—
15	16	11.043	10.018	9.007	8.002
	15	9.033	8.014	7.005 <sup>+</sup>	6.002
	14	8.044	7.019	6.008	5.003
	13	6.023	6.023	5.009	4.003
	12	5.024	5.024	4.009	3.003
	11	4.023	4.023	3.008	2.002
	10	4.049	3.020	2.006	1.001

**TABLE J (continued)**

		Probability			
	<i>a</i>	0.05	0.025	0.01	0.005
	9	3 <sub>.043</sub>	2 <sub>.016</sub>	1 <sub>.004</sub>	1 <sub>.004</sub>
	8	2 <sub>.035<sup>-</sup></sub>	1 <sub>.010<sup>+</sup></sub>	0 <sub>.002</sub>	0 <sub>.002</sub>
	7	1 <sub>.023</sub>	1 <sub>.023</sub>	0 <sub>.004</sub>	0 <sub>.004</sub>
	6	0 <sub>.011</sub>	0 <sub>.011</sub>	—	—
	5	0 <sub>.026</sub>	—	—	—
<b>14</b>	16	10 <sub>.037</sub>	9 <sub>.014</sub>	8 <sub>.005<sup>+</sup></sub>	7 <sub>.002</sub>
	15	8 <sub>.025<sup>+</sup></sub>	7 <sub>.010<sup>-</sup></sub>	7 <sub>.010<sup>-</sup></sub>	6 <sub>.003</sub>
	14	7 <sub>.032</sub>	6 <sub>.013</sub>	5 <sub>.005<sup>-</sup></sub>	5 <sub>.005<sup>-</sup></sub>
	13	6 <sub>.035<sup>+</sup></sub>	5 <sub>.014</sub>	4 <sub>.005<sup>+</sup></sub>	3 <sub>.001</sub>
	12	5 <sub>.035<sup>+</sup></sub>	4 <sub>.014</sub>	3 <sub>.005<sup>-</sup></sub>	3 <sub>.005<sup>-</sup></sub>
	11	4 <sub>.033</sub>	3 <sub>.012</sub>	2 <sub>.004</sub>	2 <sub>.004</sub>
	10	3 <sub>.028</sub>	2 <sub>.009</sub>	2 <sub>.009</sub>	1 <sub>.002</sub>
	9	2 <sub>.021</sub>	2 <sub>.021</sub>	1 <sub>.006</sub>	0 <sub>.001</sub>
	8	2 <sub>.045<sup>-</sup></sub>	1 <sub>.013</sub>	0 <sub>.002</sub>	0 <sub>.002</sub>
	7	1 <sub>.030</sub>	0 <sub>.006</sub>	0 <sub>.006</sub>	—
	6	0 <sub>.013</sub>	0 <sub>.013</sub>	—	—
	5	0 <sub>.031</sub>	—	—	—
<b>13</b>	16	9 <sub>.030</sub>	8 <sub>.011</sub>	7 <sub>.004</sub>	7 <sub>.004</sub>
	15	8 <sub>.047</sub>	7 <sub>.019</sub>	6 <sub>.007</sub>	5 <sub>.002</sub>
	14	6 <sub>.023</sub>	6 <sub>.023</sub>	5 <sub>.008</sub>	4 <sub>.003</sub>
	13	5 <sub>.023</sub>	5 <sub>.023</sub>	4 <sub>.008</sub>	3 <sub>.003</sub>
	12	4 <sub>.022</sub>	4 <sub>.022</sub>	3 <sub>.007</sub>	2 <sub>.002</sub>
	11	4 <sub>.048</sub>	3 <sub>.018</sub>	2 <sub>.005<sup>+</sup></sub>	1 <sub>.001</sub>
	10	3 <sub>.039</sub>	2 <sub>.013</sub>	1 <sub>.003</sub>	1 <sub>.003</sub>
	9	2 <sub>.029</sub>	1 <sub>.008</sub>	1 <sub>.008</sub>	0 <sub>.001</sub>
	8	1 <sub>.018</sub>	1 <sub>.018</sub>	0 <sub>.003</sub>	0 <sub>.003</sub>
	7	1 <sub>.038</sub>	0 <sub>.007</sub>	0 <sub>.007</sub>	—
	6	0 <sub>.017</sub>	0 <sub>.017</sub>	—	—
	5	0 <sub>.037</sub>	—	—	—
<b>12</b>	16	8 <sub>.024</sub>	8 <sub>.024</sub>	7 <sub>.008</sub>	6 <sub>.002</sub>
	15	7 <sub>.036</sub>	6 <sub>.013</sub>	5 <sub>.004</sub>	5 <sub>.004</sub>
	14	6 <sub>.040</sub>	5 <sub>.015<sup>-</sup></sub>	4 <sub>.005<sup>-</sup></sub>	4 <sub>.005<sup>-</sup></sub>
	13	5 <sub>.039</sub>	4 <sub>.014</sub>	3 <sub>.004</sub>	3 <sub>.004</sub>
	12	4 <sub>.034</sub>	3 <sub>.012</sub>	2 <sub>.003</sub>	2 <sub>.003</sub>
	11	3 <sub>.027</sub>	2 <sub>.008</sub>	2 <sub>.008</sub>	1 <sub>.002</sub>
	10	2 <sub>.019</sub>	2 <sub>.019</sub>	1 <sub>.005<sup>-</sup></sub>	1 <sub>.005<sup>-</sup></sub>
	9	2 <sub>.040</sub>	1 <sub>.011</sub>	0 <sub>.002</sub>	0 <sub>.002</sub>
	8	1 <sub>.024</sub>	1 <sub>.024</sub>	0 <sub>.004</sub>	0 <sub>.004</sub>
	7	1 <sub>.048</sub>	0 <sub>.010<sup>-</sup></sub>	0 <sub>.010<sup>-</sup></sub>	—
	6	0 <sub>.021</sub>	0 <sub>.021</sub>	—	—
	5	0 <sub>.044</sub>	—	—	—
<b>A = 16 B = 11</b>	16	7 <sub>.019</sub>	7 <sub>.019</sub>	6 <sub>.006</sub>	5 <sub>.002</sub>
	15	6 <sub>.027</sub>	5 <sub>.009</sub>	5 <sub>.009</sub>	4 <sub>.002</sub>
	14	5 <sub>.027</sub>	4 <sub>.009</sub>	4 <sub>.009</sub>	3 <sub>.002</sub>
	13	4 <sub>.024</sub>	4 <sub>.024</sub>	3 <sub>.008</sub>	2 <sub>.002</sub>
	12	3 <sub>.019</sub>	3 <sub>.019</sub>	2 <sub>.005<sup>+</sup></sub>	1 <sub>.001</sub>
	11	3 <sub>.041</sub>	2 <sub>.013</sub>	1 <sub>.003</sub>	1 <sub>.003</sub>
	10	2 <sub>.028</sub>	1 <sub>.007</sub>	1 <sub>.007</sub>	0 <sub>.001</sub>
	9	1 <sub>.016</sub>	1 <sub>.016</sub>	0 <sub>.002</sub>	0 <sub>.002</sub>
	8	1 <sub>.033</sub>	0 <sub>.006</sub>	0 <sub>.006</sub>	—



TABLE J (continued)

		Probability			
	<i>a</i>	0.05	0.025	0.01	0.005
	7	0.013	0.013	—	—
	6	0.027	—	—	—
10	16	7.046	6.014	5.004	5.004
	15	5.018	5.018	4.005 <sup>+</sup>	3.001
	14	4.018	4.018	3.005 <sup>-</sup>	3.005 <sup>-</sup>
	13	4.042	3.014	2.003	2.003
	12	3.032	2.009	2.009	1.002
	11	2.021	2.021	1.005 <sup>-</sup>	1.005 <sup>-</sup>
	10	2.042	1.011	0.002	0.002
	9	1.023	1.023	0.004	0.004
	8	1.045 <sup>-</sup>	0.008	0.008	—
	7	0.017	0.017	—	—
	6	0.035 <sup>-</sup>	—	—	—
9	16	6.037	5.010 <sup>-</sup>	5.010 <sup>-</sup>	4.002
	15	5.040	4.012	3.003	3.003
	14	4.034	3.010 <sup>-</sup>	3.010 <sup>-</sup>	2.002
	13	3.025 <sup>+</sup>	2.007	2.007	1.001
	12	2.016	2.016	1.003	1.003
	11	2.033	1.008	1.008	0.001
	10	1.017	1.017	0.002	0.002
	9	1.034	0.006	0.006	—
	8	0.012	0.012	—	—
	7	0.024	0.024	—	—
	6	0.045 <sup>+</sup>	—	—	—
8	16	5.028	4.007	4.007	3.001
	15	4.028	3.007	3.007	2.001
	14	3.021	3.021	2.005 <sup>-</sup>	2.005 <sup>-</sup>
	13	3.047	2.013	1.002	1.002
	12	2.028	1.006	1.006	0.001
	11	1.014	1.014	0.002	0.002
	10	1.027	0.004	0.004	0.004
	9	0.009	0.009	0.009	—
	8	0.017	0.017	—	—
	7	0.033	—	—	—
7	16	4.020	4.020	3.004	3.004
	15	3.017	3.017	2.003	2.003
	14	3.045 <sup>+</sup>	2.011	1.002	1.002
	13	2.026	1.005 <sup>-</sup>	1.005 <sup>-</sup>	1.005 <sup>-</sup>
	12	1.012	1.012	0.001	0.001
	11	1.024	1.024	0.003	0.003
	10	1.045 <sup>-</sup>	0.007	0.007	—
	9	0.014	0.014	—	—
	8	0.026	—	—	—
	7	0.047	—	—	—
6	16	3.013	3.013	2.002	2.002
	15	3.046	2.009	2.009	1.001
	14	2.025 <sup>+</sup>	1.004	1.004	1.004
	13	1.011	1.011	0.001	0.001
	12	1.023	1.023	0.003	0.003
	11	1.043	0.006	0.006	—

**TABLE J (continued)**

		Probability				
		<i>a</i>	0.05	0.025	0.01	0.005
<b>A = 16 B = 6</b>	<b>5</b>	10	0.012	0.012	—	—
		9	0.023	0.023	—	—
		8	0.040	—	—	—
		16	3.048	2.008	2.008	1.001
		15	2.028	1.004	1.004	1.004
		14	1.011	1.011	0.001	0.001
		13	1.025 <sup>+</sup>	0.003	0.003	0.003
		12	1.047	0.006	0.006	—
	<b>4</b>	11	0.012	0.012	—	—
		10	0.023	0.023	—	—
		9	0.039	—	—	—
		16	2.032	1.004	1.004	1.004
		15	1.013	1.013	0.001	1.001
		14	1.032	0.003	0.003	0.003
		13	0.007	0.007	0.007	—
		12	0.014	0.014	—	—
<b>3</b>	11	0.026	—	—	—	
	10	0.043	—	—	—	
	16	1.018	1.018	0.001	0.001	
	15	0.004	0.004	0.004	0.004	
	14	0.010 <sup>+</sup>	0.010 <sup>+</sup>	—	—	
	13	0.021	0.021	—	—	
	12	0.036	—	—	—	
	16	0.007	0.007	0.007	—	
<b>A = 17 B = 17</b>	<b>2</b>	15	0.020	0.020	—	—
		14	0.039	—	—	—
		17	12.022	12.022	11.009	10.004
		16	11.043	10.020	9.008	8.003
		15	9.029	8.013	7.005 <sup>+</sup>	6.002
		14	8.035 <sup>+</sup>	7.016	6.007	5.002
		13	7.040	6.018	5.007	4.003
		12	6.042	5.019	4.007	3.002
	<b>16</b>	11	5.042	4.018	3.007	2.002
		10	4.040	3.016	2.005 <sup>+</sup>	1.001
		9	3.035 <sup>+</sup>	2.013	1.003	1.003
		8	2.029	1.008	1.008	0.001
		7	1.020	1.020	0.004	0.004
		6	1.043	0.009	0.009	—
		5	0.022	0.022	—	—
		17	12.044	11.018	10.007	9.003
<b>16</b>	16	10.035 <sup>-</sup>	9.015 <sup>-</sup>	8.006	7.002	
	15	9.046	8.021	7.009	6.003	
	14	7.025 <sup>+</sup>	6.011	5.004	5.004	
	13	6.027	5.011	4.004	4.004	
	12	5.027	4.011	3.004	3.004	
	11	4.025 <sup>+</sup>	3.009	3.009	2.003	
	10	3.022	3.022	2.007	1.002	
	9	3.046	2.017	1.004	1.004	
	8	2.036	1.011	0.002	0.002	
	7	1.024	1.024	0.005 <sup>-</sup>	0.005 <sup>-</sup>	

TABLE J (continued)

		Probability				
	<i>a</i>	0.05	0.025	0.01	0.005	
<b>15</b>	6	0.011	0.011	—	—	
	5	0.026	—	—	—	
	17	11.038	10.015 <sup>-</sup>	9.006	8.002	
	16	9.027	8.011	7.004	7.004	
	15	8.035 <sup>+</sup>	7.015 <sup>-</sup>	6.006	5.002	
	14	7.040	6.017	5.006	4.002	
	13	6.041	5.017	4.006	3.002	
	12	5.039	4.016	3.005 <sup>+</sup>	2.001	
	11	4.035 <sup>+</sup>	3.013	2.004	2.004	
	10	3.029	2.010 <sup>-</sup>	2.010 <sup>-</sup>	1.002	
<b>A = 17 B = 15</b>	9	2.022	2.022	1.006	0.001	
	8	2.046	1.014	0.002	0.002	
	7	1.030	0.006	0.006	—	
	6	0.014	0.014	—	—	
	5	0.031	—	—	—	
	<b>14</b>	17	10.032	9.012	8.004	8.004
		16	8.021	8.021	7.008	6.003
		15	7.026	6.010 <sup>-</sup>	6.010 <sup>-</sup>	5.003
		14	6.028	5.011	4.004	4.004
		13	5.027	4.010 <sup>-</sup>	4.010 <sup>-</sup>	3.003
12		4.024	4.024	3.008	2.002	
11		4.049	3.019	2.006	1.001	
10		3.040	2.014	1.003	1.003	
9		2.029	1.008	1.008	0.001	
8		1.018	1.018	0.003	0.003	
<b>13</b>	7	1.038	0.007	0.007	—	
	6	0.017	0.017	—	—	
	5	0.036	—	—	—	
	17	9.026	8.009	8.009	7.003	
	16	8.040	7.015 <sup>+</sup>	6.005 <sup>+</sup>	5.002	
	15	7.045 <sup>+</sup>	6.018	5.006	4.002	
	14	6.045 <sup>+</sup>	5.018	4.006	3.002	
	13	5.042	4.016	3.005 <sup>+</sup>	2.001	
	12	4.035 <sup>+</sup>	3.013	2.004	2.004	
	11	3.028	2.009	2.009	1.002	
<b>12</b>	10	2.019	2.019	1.005 <sup>-</sup>	1.005 <sup>-</sup>	
	9	2.040	1.011	0.002	0.002	
	8	1.024	1.024	0.004	0.004	
	7	1.047	0.010 <sup>-</sup>	0.010 <sup>-</sup>	—	
	6	0.021	0.021	—	—	
	5	0.043	—	—	—	
	17	8.021	8.021	7.007	6.002	
	16	7.030	6.011	5.003	5.003	
	15	6.033	5.012	4.004	4.004	
	14	5.030	4.011	3.003	3.003	
13	4.026	3.008	3.008	2.002		
12	3.020	3.020	2.006	1.001		
11	3.041	2.013	1.003	1.003		
10	2.028	1.007	1.007	0.001		
9	1.016	1.016	0.002	0.002		

**TABLE J (continued)**

		Probability				
	<i>a</i>	0.05	0.025	0.01	0.005	
<b>11</b>	8	1.032	0.006	0.006	—	
	7	0.012	0.012	—	—	
	6	0.026	—	—	—	
	17	7.016	7.016	6.005 <sup>-</sup>	6.005 <sup>-</sup>	
	16	6.022	6.022	5.007	4.002	
	15	5.022	5.022	4.007	3.002	
	14	4.019	4.019	3.006	2.001	
	13	4.042	3.014	2.004	2.004	
	12	3.031	2.009	2.009	1.002	
	11	2.020	2.020	1.005 <sup>-</sup>	1.005 <sup>-</sup>	
<b>10</b>	10	2.040	1.011	0.001	0.001	
	9	1.022	1.022	0.004	0.004	
	8	1.042	0.008	0.008	—	
	7	0.016	0.016	—	—	
	6	0.033	—	—	—	
	17	7.041	6.012	5.003	5.003	
	16	6.047	5.015 <sup>+</sup>	4.004	4.004	
	15	5.043	4.014	3.004	3.004	
	14	4.034	3.010 <sup>+</sup>	2.002	2.002	
	13	3.024	3.024	2.007	1.001	
<b>A = 17 B = 10</b>	12	3.049	2.015 <sup>+</sup>	1.003	1.003	
	11	2.031	1.007	1.007	0.001	
	10	1.016	1.016	0.002	0.002	
	9	1.031	0.005 <sup>+</sup>	0.005 <sup>+</sup>	—	
	8	0.011	0.011	—	—	
	7	0.022	0.022	—	—	
	6	0.042	—	—	—	
	17	6.032	5.008	5.008	4.002	
	16	5.034	4.010 <sup>-</sup>	4.010 <sup>-</sup>	3.002	
	15	4.028	3.008	3.008	2.002	
<b>9</b>	14	3.020	3.020	2.005 <sup>-</sup>	2.005 <sup>-</sup>	
	13	3.042	2.012	1.002	1.002	
	12	2.025 <sup>+</sup>	1.006	1.006	0.001	
	11	2.048	1.012	0.002	0.002	
	10	1.024	1.024	0.004	0.004	
	9	1.045 <sup>-</sup>	0.008	0.008	—	
	8	0.016	0.016	—	—	
	7	0.030	—	—	—	
	17	5.024	5.024	4.006	3.001	
	<b>8</b>	16	4.023	4.023	3.006	2.001
15		3.017	3.017	2.004	2.004	
14		3.039	2.010 <sup>-</sup>	2.010 <sup>-</sup>	1.002	
13		2.022	2.022	1.004	1.004	
12		2.043	1.010 <sup>-</sup>	1.010 <sup>-</sup>	0.001	
11		1.020	1.020	0.003	0.003	
10		1.038	0.006	0.006	—	
9		0.012	0.012	—	—	
8		0.022	0.022	—	—	
7		0.040	—	—	—	
<b>7</b>	17	4.017	4.017	3.003	3.003	



TABLE J (continued)

		Probability			
	<i>a</i>	0.05	0.025	0.01	0.005
	16	3.014	3.014	2.003	2.003
	15	3.038	2.009	2.009	1.001
	14	2.021	2.021	1.004	1.004
	13	2.042	1.009	1.009	0.001
	12	1.018	1.018	0.002	0.002
	11	1.034	0.005 <sup>-</sup>	0.005 <sup>-</sup>	0.005 <sup>-</sup>
	10	0.010 <sup>-</sup>	0.010 <sup>-</sup>	0.010 <sup>-</sup>	—
	9	0.019	0.019	—	—
	8	0.033	—	—	—
<b>6</b>	17	3.011	3.011	2.002	2.002
	16	3.040	2.008	2.008	1.001
	15	2.021	2.021	1.003	1.003
	14	2.045 <sup>+</sup>	1.009	1.009	0.001
	13	1.018	1.018	0.002	0.002
	12	1.035 <sup>-</sup>	0.005 <sup>-</sup>	0.005 <sup>-</sup>	0.005 <sup>-</sup>
	11	0.009	0.009	0.009	—
	10	0.017	0.017	—	—
	9	0.030	—	—	—
	8	0.050 <sup>-</sup>	—	—	—
<b>5</b>	17	3.043	2.006	2.006	1.001
	16	2.024	2.024	1.003	1.003
	15	1.009	1.009	1.009	0.001
	14	1.021	1.021	0.002	0.002
	13	1.039	0.005 <sup>-</sup>	0.005 <sup>-</sup>	0.005 <sup>-</sup>
	12	0.010 <sup>-</sup>	0.010 <sup>-</sup>	0.010 <sup>-</sup>	—
	11	0.018	0.018	—	—
	10	0.030	—	—	—
	9	0.049	—	—	—
<b>4</b>	17	2.029	1.003	1.003	1.003
	16	1.011	1.011	0.001	0.001
	15	1.028	0.003	0.003	0.003
	14	0.006	0.006	0.006	—
<b>A = 17 B = 4</b>	13	0.012	0.012	—	—
	12	0.021	0.021	—	—
	11	0.035 <sup>+</sup>	—	—	—
<b>3</b>	17	1.016	1.016	0.001	0.001
	16	1.046	0.004	0.004	0.004
	15	0.009	0.009	0.009	—
	14	0.018	0.018	—	—
	13	0.031	—	—	—
	12	0.049	—	—	—
<b>2</b>	17	0.006	0.006	0.006	—
	16	0.018	0.018	—	—
	15	0.035 <sup>+</sup>	—	—	—
<b>A = 18 B = 18</b>	18	13.023	13.023	12.010 <sup>-</sup>	11.004
	17	12.044	11.020	10.009	9.004
	16	10.030	9.014	8.006	7.002
	15	9.038	8.018	7.008	6.003
	14	8.043	7.020	6.009	5.003
	13	7.046	6.022	5.009	4.003

**TABLE J (continued)**

		Probability			
<i>a</i>	0.05	0.025	0.01	0.005	
	12	6.047	5.022	4.009	3.003
	11	5.046	4.020	3.008	2.002
	10	4.043	3.018	2.006	1.001
	9	3.038	2.014	1.004	1.004
	8	2.030	1.009	1.009	0.001
	7	1.020	1.020	0.004	0.004
	6	1.044	0.010 <sup>-</sup>	0.010 <sup>-</sup>	—
	5	0.023	0.023	—	—
<b>17</b>	18	13.045 <sup>+</sup>	12.019	11.008	10.003
	17	11.036	10.016	9.007	8.002
	16	10.049	9.023	8.010 <sup>-</sup>	7.004
	15	8.028	7.012	6.005 <sup>-</sup>	6.005 <sup>-</sup>
	14	7.030	6.013	5.005 <sup>+</sup>	4.002
	13	6.031	5.013	4.005 <sup>-</sup>	4.005 <sup>-</sup>
	12	5.030	4.012	3.004	3.004
	11	4.028	3.010 <sup>+</sup>	2.003	2.003
	10	3.023	3.023	2.008	1.002
	9	3.047	2.018	1.005 <sup>-</sup>	1.005 <sup>-</sup>
	8	2.037	1.011	0.002	0.002
	7	1.025 <sup>-</sup>	1.025 <sup>-</sup>	0.005 <sup>-</sup>	0.005 <sup>-</sup>
	6	0.011	0.011	—	—
	5	0.026	—	—	—
<b>16</b>	18	12.039	11.016	10.006	9.002
	17	10.029	9.012	8.005 <sup>-</sup>	8.005 <sup>-</sup>
	16	9.038	8.017	7.007	6.002
	15	8.043	7.019	6.008	5.003
	14	7.046	6.020	5.008	4.003
	13	6.045 <sup>+</sup>	5.020	4.007	3.002
	12	5.042	4.018	3.006	2.002
	11	4.037	3.015 <sup>-</sup>	2.004	2.004
	10	3.031	2.011	1.003	1.003
	9	2.023	2.023	1.006	0.001
	8	2.046	1.014	0.002	0.002
	7	1.030	0.006	0.006	—
	6	0.014	0.014	—	—
	5	0.031	—	—	—
<b>15</b>	18	11.033	10.013	9.005 <sup>-</sup>	9.005 <sup>-</sup>
	17	9.023	9.023	8.009	7.003
	16	8.029	7.012	6.004	6.004
	15	7.031	6.013	5.005 <sup>-</sup>	5.005 <sup>-</sup>
	14	6.031	5.013	4.004	4.004
	13	5.029	4.011	3.004	3.004
<b>A = 18 B = 15</b>	12	4.025 <sup>+</sup>	3.009	3.009	2.003
	11	3.020	3.020	2.006	1.001
	10	3.041	2.014	1.004	1.004
	9	2.030	1.008	1.008	0.001
	8	1.018	1.018	0.003	0.003
	7	1.038	0.007	0.007	—
	6	0.017	0.017	—	—
	5	0.036	—	—	—

TABLE J (continued)

		Probability			
	<i>a</i>	0.05	0.025	0.01	0.005
<b>14</b>	18	10.028	9.010 <sup>-</sup>	9.010 <sup>-</sup>	8.003
	17	9.043	8.017	7.006	6.002
	16	8.050 <sup>-</sup>	7.021	6.008	5.003
	15	6.022	6.022	5.008	4.003
	14	6.049	5.020	4.007	3.002
	13	5.044	4.017	3.006	2.001
	12	4.037	3.013	2.004	2.004
	11	3.028	2.009	2.009	1.002
	10	2.020	2.020	1.005 <sup>-</sup>	1.005 <sup>-</sup>
	9	2.039	1.011	0.002	0.002
	8	1.024	1.024	0.004	0.004
	7	1.047	0.009	0.009	—
	6	0.020	0.020	—	—
	5	0.043	—	—	—
<b>13</b>	18	9.023	9.023	8.008	7.002
	17	8.034	7.012	6.004	6.004
	16	7.037	6.014	5.005 <sup>-</sup>	5.005 <sup>-</sup>
	15	6.036	5.014	4.004	4.004
	14	5.032	4.012	3.004	3.004
	13	4.027	3.009	3.009	2.002
	12	3.020	3.020	2.006	1.001
	11	3.040	2.013	1.003	1.003
	10	2.027	1.007	1.007	0.001
	9	1.015 <sup>+</sup>	1.015 <sup>+</sup>	0.002	0.002
	8	1.031	0.006	0.006	—
	7	0.012	0.012	—	—
	6	0.025 <sup>+</sup>	—	—	—
	<b>12</b>	18	8.018	8.018	7.006
17		7.026	6.009	6.009	5.003
16		6.027	5.009	5.009	4.003
15		5.024	5.024	4.008	3.002
14		4.020	4.020	3.006	2.001
13		4.042	3.014	2.004	2.004
12		3.030	2.009	2.009	1.002
11		2.019	2.019	1.005 <sup>-</sup>	1.005 <sup>-</sup>
10		2.038	1.010 <sup>+</sup>	0.001	0.001
9		1.021	1.021	0.003	0.003
8		1.040	0.007	0.007	—
7		0.016	0.016	—	—
6		0.031	—	—	—
<b>11</b>		18	8.045 <sup>+</sup>	7.014	6.004
	17	6.018	6.018	5.006	4.001
	16	5.018	5.018	4.005 <sup>+</sup>	3.001
	15	5.043	4.015 <sup>-</sup>	3.004	3.004
	14	4.033	3.011	2.003	2.003
	13	3.023	3.023	2.007	1.001
	12	3.046	2.014	1.003	1.003
	11	2.029	1.007	1.007	0.001
	10	1.015 <sup>-</sup>	1.015 <sup>-</sup>	0.002	0.002
	9	1.029	0.005 <sup>-</sup>	0.005 <sup>-</sup>	0.005 <sup>-</sup>

**TABLE J (continued)**

		Probability					
		<i>a</i>	0.05	0.025	0.01	0.005	
<b>A = 18 B = 10</b>		8	0 <sub>.010</sub> <sup>+</sup>	0 <sub>.010</sub> <sup>+</sup>	—	—	
		7	0 <sub>.020</sub>	0 <sub>.020</sub>	—	—	
		6	0 <sub>.039</sub>	—	—	—	
		18	7 <sub>.037</sub>	6 <sub>.010</sub> <sup>+</sup>	5 <sub>.003</sub>	5 <sub>.003</sub>	
		17	6 <sub>.041</sub>	5 <sub>.013</sub>	4 <sub>.003</sub>	4 <sub>.003</sub>	
		16	5 <sub>.036</sub>	4 <sub>.011</sub>	3 <sub>.003</sub>	3 <sub>.003</sub>	
		15	4 <sub>.028</sub>	3 <sub>.008</sub>	3 <sub>.008</sub>	2 <sub>.002</sub>	
		14	3 <sub>.019</sub>	3 <sub>.019</sub>	2 <sub>.005</sub> <sup>-</sup>	2 <sub>.005</sub> <sup>-</sup>	
		13	3 <sub>.039</sub>	2 <sub>.011</sub>	1 <sub>.002</sub>	1 <sub>.002</sub>	
		12	2 <sub>.023</sub>	2 <sub>.023</sub>	1 <sub>.005</sub> <sup>+</sup>	0 <sub>.001</sub>	
		11	2 <sub>.043</sub>	1 <sub>.011</sub>	0 <sub>.001</sub>	0 <sub>.001</sub>	
		10	1 <sub>.022</sub>	1 <sub>.022</sub>	0 <sub>.003</sub>	0 <sub>.003</sub>	
		9	1 <sub>.040</sub>	0 <sub>.007</sub>	0 <sub>.007</sub>	—	
		8	0 <sub>.014</sub>	0 <sub>.014</sub>	—	—	
		7	0 <sub>.027</sub>	—	—	—	
		6	0 <sub>.049</sub>	—	—	—	
	<b>9</b>		18	6 <sub>.029</sub>	5 <sub>.007</sub>	5 <sub>.007</sub>	4 <sub>.002</sub>
			17	5 <sub>.030</sub>	4 <sub>.008</sub>	4 <sub>.008</sub>	3 <sub>.002</sub>
		16	4 <sub>.023</sub>	4 <sub>.023</sub>	3 <sub>.006</sub>	2 <sub>.001</sub>	
		15	3 <sub>.016</sub>	3 <sub>.016</sub>	2 <sub>.004</sub>	2 <sub>.004</sub>	
		14	3 <sub>.034</sub>	2 <sub>.009</sub>	2 <sub>.009</sub>	1 <sub>.002</sub>	
		13	2 <sub>.019</sub>	2 <sub>.019</sub>	1 <sub>.004</sub>	1 <sub>.004</sub>	
		12	2 <sub>.037</sub>	1 <sub>.009</sub>	1 <sub>.009</sub>	0 <sub>.001</sub>	
		11	1 <sub>.018</sub>	1 <sub>.018</sub>	0 <sub>.002</sub>	0 <sub>.002</sub>	
		10	1 <sub>.033</sub>	0 <sub>.005</sub> <sup>+</sup>	0 <sub>.005</sub> <sup>+</sup>	—	
		9	0 <sub>.010</sub> <sup>+</sup>	0 <sub>.010</sub> <sup>+</sup>	—	—	
		8	0 <sub>.020</sub>	0 <sub>.020</sub>	—	—	
		7	0 <sub>.036</sub>	—	—	—	
<b>8</b>			18	5 <sub>.022</sub>	5 <sub>.022</sub>	4 <sub>.005</sub> <sup>-</sup>	4 <sub>.005</sub> <sup>-</sup>
			17	4 <sub>.020</sub>	4 <sub>.020</sub>	3 <sub>.004</sub>	3 <sub>.004</sub>
			16	3 <sub>.014</sub>	3 <sub>.014</sub>	2 <sub>.003</sub>	2 <sub>.003</sub>
			15	3 <sub>.032</sub>	2 <sub>.008</sub>	2 <sub>.008</sub>	1 <sub>.001</sub>
			14	2 <sub>.017</sub>	2 <sub>.017</sub>	1 <sub>.003</sub>	1 <sub>.003</sub>
			13	2 <sub>.034</sub>	1 <sub>.007</sub>	1 <sub>.007</sub>	0 <sub>.001</sub>
		12	1 <sub>.015</sub> <sup>+</sup>	1 <sub>.015</sub> <sup>+</sup>	0 <sub>.002</sub>	0 <sub>.002</sub>	
		11	1 <sub>.028</sub>	0 <sub>.004</sub>	0 <sub>.004</sub>	0 <sub>.004</sub>	
		10	1 <sub>.049</sub>	0 <sub>.008</sub>	0 <sub>.008</sub>	—	
		9	0 <sub>.016</sub>	0 <sub>.016</sub>	—	—	
		8	0 <sub>.028</sub>	—	—	—	
		7	0 <sub>.048</sub>	—	—	—	
	<b>7</b>		18	4 <sub>.015</sub> <sup>+</sup>	4 <sub>.015</sub> <sup>+</sup>	3 <sub>.003</sub>	3 <sub>.003</sub>
			17	3 <sub>.012</sub>	3 <sub>.012</sub>	2 <sub>.002</sub>	2 <sub>.002</sub>
			16	3 <sub>.032</sub>	2 <sub>.007</sub>	2 <sub>.007</sub>	1 <sub>.001</sub>
			15	2 <sub>.017</sub>	2 <sub>.017</sub>	1 <sub>.003</sub>	1 <sub>.003</sub>
			14	2 <sub>.034</sub>	1 <sub>.007</sub>	1 <sub>.007</sub>	0 <sub>.001</sub>
			13	1 <sub>.014</sub>	1 <sub>.014</sub>	0 <sub>.002</sub>	0 <sub>.002</sub>
		12	1 <sub>.027</sub>	0 <sub>.004</sub>	0 <sub>.004</sub>	0 <sub>.004</sub>	
		11	1 <sub>.046</sub>	0 <sub>.007</sub>	0 <sub>.007</sub>	—	
		10	0 <sub>.013</sub>	0 <sub>.013</sub>	—	—	
		9	0 <sub>.024</sub>	0 <sub>.024</sub>	—	—	



TABLE J (continued)

		Probability			
	<i>a</i>	0.05	0.025	0.01	0.005
	8	0.040	—	—	—
<b>6</b>	18	3.010 <sup>-</sup>	3.010 <sup>-</sup>	3.010 <sup>-</sup>	2.001
	17	3.035 <sup>+</sup>	2.006	2.006	1.001
	16	2.018	2.018	1.003	1.003
	15	2.038	1.007	1.007	0.001
	14	1.015 <sup>-</sup>	1.015 <sup>-</sup>	0.002	0.002
	13	1.028	0.003	0.003	0.003
	12	1.048	0.007	0.007	—
	11	0.013	0.013	—	—
	10	0.022	0.022	—	—
	9	0.037	—	—	—
<b>5</b>	18	3.040	2.006	2.006	1.001
	17	2.021	2.021	1.003	1.003
	16	2.048	1.008	1.008	0.001
	15	1.017	1.017	0.002	0.002
	14	1.033	0.004	0.004	0.004
	13	0.007	0.007	0.007	—
	12	0.014	0.014	—	—
	11	0.024	0.024	—	—
	10	0.038	—	—	—
	18	2.026	1.003	1.003	1.003
<b>4</b>	17	1.010 <sup>-</sup>	1.010 <sup>-</sup>	1.010 <sup>-</sup>	0.001
	16	1.024	1.024	0.002	0.002
	15	1.046	0.005 <sup>-</sup>	0.005 <sup>-</sup>	0.005 <sup>-</sup>
	14	0.010 <sup>-</sup>	0.010 <sup>-</sup>	0.010 <sup>-</sup>	—
	13	0.017	0.017	—	—
	12	0.029	—	—	—
	11	0.045 <sup>+</sup>	—	—	—
	18	1.014	1.014	0.001	0.001
	17	1.041	0.003	0.003	0.003
	16	0.008	0.008	0.008	—
<b>3</b>	15	0.015 <sup>+</sup>	0.015 <sup>+</sup>	—	—
	14	0.026	—	—	—
	13	0.042	—	—	—
	18	0.005 <sup>+</sup>	0.005 <sup>+</sup>	0.005 <sup>+</sup>	—
	17	0.016	0.016	—	—
	16	0.032	—	—	—
	19	14.023	14.023	13.010 <sup>-</sup>	12.004
	18	13.045 <sup>-</sup>	12.021	11.009	10.004
	17	11.031	10.015 <sup>-</sup>	9.006	8.003
	16	10.039	9.019	8.009	7.003
15	9.046	8.022	6.004	6.004	
14	8.050 <sup>-</sup>	7.024	5.004	5.004	
13	6.025 <sup>+</sup>	5.011	4.004	4.004	
12	5.024	5.024	3.003	3.003	
11	5.050 <sup>-</sup>	4.022	3.009	2.003	
10	4.046	3.019	2.006	1.002	
9	3.039	2.015 <sup>-</sup>	1.004	1.004	
8	2.031	1.009	1.009	0.002	
7	1.021	1.021	0.004	0.004	
<b>A = 18 B = 5</b>	18	3.040	2.006	2.006	1.001
	17	2.021	2.021	1.003	1.003
	16	2.048	1.008	1.008	0.001
	15	1.017	1.017	0.002	0.002
	14	1.033	0.004	0.004	0.004
	13	0.007	0.007	0.007	—
	12	0.014	0.014	—	—
	11	0.024	0.024	—	—
	10	0.038	—	—	—
	18	2.026	1.003	1.003	1.003
<b>A = 19 B = 19</b>	17	1.010 <sup>-</sup>	1.010 <sup>-</sup>	1.010 <sup>-</sup>	0.001
	16	1.024	1.024	0.002	0.002
	15	1.046	0.005 <sup>-</sup>	0.005 <sup>-</sup>	0.005 <sup>-</sup>
	14	0.010 <sup>-</sup>	0.010 <sup>-</sup>	0.010 <sup>-</sup>	—
	13	0.017	0.017	—	—
	12	0.029	—	—	—
	11	0.045 <sup>+</sup>	—	—	—
	18	1.014	1.014	0.001	0.001
	17	1.041	0.003	0.003	0.003
	16	0.008	0.008	0.008	—

**TABLE J (continued)**

		Probability						
		<i>a</i>	0.05	0.025	0.01	0.005		
<b>18</b>		6	1 <sub>.045</sub> <sup>-</sup>	0 <sub>.010</sub> <sup>-</sup>	0 <sub>.010</sub> <sup>-</sup>	—		
		5	0 <sub>.023</sub>	0 <sub>.023</sub>	—	—		
		19	14 <sub>.046</sub>	13 <sub>.020</sub>	12 <sub>.008</sub>	11 <sub>.003</sub>		
		18	12 <sub>.037</sub>	11 <sub>.017</sub>	10 <sub>.007</sub>	9 <sub>.003</sub>		
		17	10 <sub>.024</sub>	10 <sub>.024</sub>	8 <sub>.004</sub>	8 <sub>.004</sub>		
		16	9 <sub>.030</sub>	8 <sub>.014</sub>	7 <sub>.006</sub>	6 <sub>.002</sub>		
		15	8 <sub>.033</sub>	7 <sub>.015</sub> <sup>+</sup>	6 <sub>.006</sub>	5 <sub>.002</sub>		
		14	7 <sub>.035</sub> <sup>+</sup>	6 <sub>.016</sub>	5 <sub>.006</sub>	4 <sub>.002</sub>		
		13	6 <sub>.035</sub> <sup>-</sup>	5 <sub>.015</sub> <sup>+</sup>	4 <sub>.006</sub>	3 <sub>.002</sub>		
		12	5 <sub>.033</sub>	4 <sub>.014</sub>	3 <sub>.005</sub> <sup>-</sup>	3 <sub>.005</sub> <sup>-</sup>		
		11	4 <sub>.030</sub>	3 <sub>.011</sub>	2 <sub>.004</sub>	2 <sub>.004</sub>		
		10	3 <sub>.025</sub> <sup>-</sup>	3 <sub>.025</sub> <sup>-</sup>	2 <sub>.008</sub>	1 <sub>.002</sub>		
		9	3 <sub>.049</sub>	2 <sub>.019</sub>	1 <sub>.005</sub> <sup>+</sup>	0 <sub>.001</sub>		
		8	2 <sub>.038</sub>	1 <sub>.012</sub>	0 <sub>.002</sub>	0 <sub>.002</sub>		
		7	1 <sub>.025</sub> <sup>+</sup>	0 <sub>.005</sub> <sup>-</sup>	0 <sub>.005</sub> <sup>-</sup>	0 <sub>.005</sub> <sup>-</sup>		
		6	0 <sub>.012</sub>	0 <sub>.012</sub>	—	—		
		5	0 <sub>.027</sub>	—	—	—		
	<b>17</b>		19	13 <sub>.040</sub>	12 <sub>.016</sub>	11 <sub>.006</sub>	10 <sub>.002</sub>	
			18	11 <sub>.030</sub>	10 <sub>.013</sub>	9 <sub>.005</sub> <sup>+</sup>	8 <sub>.002</sub>	
		17	10 <sub>.040</sub>	9 <sub>.018</sub>	8 <sub>.008</sub>	7 <sub>.003</sub>		
		16	9 <sub>.047</sub>	8 <sub>.022</sub>	7 <sub>.009</sub>	6 <sub>.003</sub>		
		15	8 <sub>.050</sub> <sup>-</sup>	7 <sub>.023</sub>	6 <sub>.010</sub> <sup>-</sup>	5 <sub>.004</sub>		
		14	6 <sub>.023</sub>	6 <sub>.023</sub>	5 <sub>.010</sub> <sup>-</sup>	4 <sub>.003</sub>		
		13	6 <sub>.049</sub>	5 <sub>.022</sub>	4 <sub>.008</sub>	3 <sub>.003</sub>		
<b>A = 19 B = 17</b>			12	5 <sub>.045</sub> <sup>-</sup>	4 <sub>.019</sub>	3 <sub>.007</sub>	2 <sub>.002</sub>	
			11	4 <sub>.039</sub>	3 <sub>.015</sub> <sup>+</sup>	2 <sub>.005</sub> <sup>-</sup>	2 <sub>.005</sub> <sup>-</sup>	
			10	3 <sub>.032</sub>	2 <sub>.011</sub>	1 <sub>.003</sub>	1 <sub>.003</sub>	
			9	2 <sub>.024</sub>	2 <sub>.024</sub>	1 <sub>.007</sub>	0 <sub>.001</sub>	
			8	2 <sub>.047</sub>	1 <sub>.015</sub> <sup>-</sup>	0 <sub>.002</sub>	0 <sub>.002</sub>	
			7	1 <sub>.031</sub>	0 <sub>.006</sub>	0 <sub>.006</sub>	—	
			6	0 <sub>.014</sub>	0 <sub>.014</sub>	—	—	
			5	0 <sub>.031</sub>	—	—	—	
		<b>16</b>		19	12 <sub>.035</sub> <sup>-</sup>	11 <sub>.013</sub>	10 <sub>.005</sub> <sup>-</sup>	10 <sub>.005</sub> <sup>-</sup>
				18	10 <sub>.024</sub>	10 <sub>.024</sub>	9 <sub>.010</sub> <sup>-</sup>	8 <sub>.004</sub>
			17	9 <sub>.031</sub>	8 <sub>.013</sub>	7 <sub>.005</sub> <sup>+</sup>	6 <sub>.002</sub>	
			16	8 <sub>.035</sub> <sup>-</sup>	7 <sub>.015</sub> <sup>+</sup>	6 <sub>.006</sub>	5 <sub>.002</sub>	
	15		7 <sub>.036</sub>	6 <sub>.015</sub> <sup>+</sup>	5 <sub>.006</sub>	4 <sub>.002</sub>		
	14		6 <sub>.034</sub>	5 <sub>.014</sub>	4 <sub>.005</sub> <sup>+</sup>	3 <sub>.002</sub>		
	13		5 <sub>.031</sub>	4 <sub>.013</sub>	3 <sub>.004</sub>	3 <sub>.004</sub>		
	12		4 <sub>.027</sub>	3 <sub>.010</sub> <sup>-</sup>	3 <sub>.010</sub> <sup>-</sup>	2 <sub>.003</sub>		
	11		3 <sub>.021</sub>	3 <sub>.021</sub>	2 <sub>.007</sub>	1 <sub>.002</sub>		
	10		3 <sub>.042</sub>	2 <sub>.015</sub> <sup>-</sup>	1 <sub>.004</sub>	1 <sub>.004</sub>		
	9		2 <sub>.030</sub>	1 <sub>.009</sub>	1 <sub>.009</sub>	0 <sub>.001</sub>		
	8		1 <sub>.018</sub>	1 <sub>.018</sub>	0 <sub>.003</sub>	0 <sub>.003</sub>		
	7		1 <sub>.037</sub>	0 <sub>.007</sub>	0 <sub>.007</sub>	—		
	6		0 <sub>.017</sub>	0 <sub>.017</sub>	—	—		
	5		0 <sub>.036</sub>	—	—	—		
<b>15</b>			19	11 <sub>.029</sub>	10 <sub>.011</sub>	9 <sub>.004</sub>	9 <sub>.004</sub>	
			18	10 <sub>.046</sub>	9 <sub>.019</sub>	8 <sub>.007</sub>	7 <sub>.002</sub>	
			17	8 <sub>.023</sub>	8 <sub>.023</sub>	7 <sub>.009</sub>	6 <sub>.003</sub>	

TABLE J (continued)

		Probability			
	<i>a</i>	0.05	0.025	0.01	0.005
	16	7.025 <sup>-</sup>	7.025 <sup>-</sup>	6.010 <sup>-</sup>	5.003
	15	6.024	6.024	5.009	4.003
	14	5.022	5.022	4.008	3.002
	13	5.045 <sup>+</sup>	4.018	3.006	2.002
	12	4.037	3.014	2.004	2.004
	11	3.029	2.009	2.009	1.002
	10	2.020	2.020	1.005 <sup>+</sup>	0.001
	9	2.039	1.011	0.002	0.002
	8	1.023	1.023	0.004	0.004
	7	1.046	0.009	0.009	—
	6	0.020	0.020	—	—
	5	0.042	—	—	—
<b>14</b>	19	10.024	10.024	9.008	8.003
	18	9.037	8.014	7.005 <sup>-</sup>	7.005 <sup>-</sup>
	17	8.042	7.017	6.006	5.002
	16	7.042	6.017	5.006	4.002
	15	6.039	5.015 <sup>+</sup>	4.005 <sup>+</sup>	3.001
	14	5.034	4.013	3.004	3.004
	13	4.027	3.009	3.009	2.003
	12	3.020	3.020	2.006	1.001
	11	3.040	2.013	1.003	1.003
	10	2.027	1.007	1.007	0.001
	9	1.015 <sup>-</sup>	1.015 <sup>-</sup>	0.002	0.002
	8	1.030	0.005 <sup>+</sup>	0.005 <sup>+</sup>	—
	7	0.012	0.012	—	—
	6	0.024	0.024	—	—
	5	0.049	—	—	—
<b>13</b>	19	9.020	9.020	8.006	7.002
	18	8.029	7.010 <sup>+</sup>	6.003	6.003
	17	7.031	6.011	5.004	5.004
	16	6.029	5.011	4.003	4.003
	15	5.025 <sup>+</sup>	4.009	4.009	3.003
	14	4.020	4.020	3.006	2.002
	13	4.041	3.015 <sup>-</sup>	2.004	2.004
<b>A = 19 B = 13</b>	12	3.029	2.009	2.009	1.002
	11	2.019	2.019	1.005 <sup>-</sup>	1.005 <sup>-</sup>
	10	2.036	1.010 <sup>-</sup>	1.010 <sup>-</sup>	0.001
	9	1.020	1.020	0.003	0.003
	8	1.038	0.007	0.007	—
	7	0.015 <sup>-</sup>	0.015 <sup>-</sup>	—	—
	6	0.030	—	—	—
<b>12</b>	19	9.049	8.016	7.005 <sup>-</sup>	7.005 <sup>-</sup>
	18	7.022	7.022	6.007	5.002
	17	6.022	6.022	5.007	4.002
	16	5.019	5.019	4.006	3.002
	15	5.042	4.015 <sup>+</sup>	3.004	3.004
	14	4.032	3.011	2.003	2.003
	13	3.023	3.023	2.006	1.001
	12	3.043	2.014	1.003	1.003
	11	2.027	1.007	1.007	0.001
	10	2.050 <sup>-</sup>	1.014	0.002	0.002

**TABLE J (continued)**

		Probability			
	<i>a</i>	0.05	0.025	0.01	0.005
<b>11</b>	9	1.027	0.005 <sup>-</sup>	0.005 <sup>-</sup>	0.005 <sup>-</sup>
	8	1.050 <sup>-</sup>	0.010 <sup>-</sup>	0.010 <sup>-</sup>	—
	7	0.019	0.019	—	—
	6	0.037	—	—	—
	19	8.041	7.012	6.003	6.003
	18	7.047	6.016	5.004	5.004
	17	6.043	5.015 <sup>-</sup>	4.004	4.004
	16	5.035 <sup>+</sup>	4.012	3.003	3.003
	15	4.027	3.008	3.008	2.002
	14	3.018	3.018	2.005 <sup>-</sup>	2.005 <sup>-</sup>
<b>10</b>	13	3.035 <sup>+</sup>	2.010 <sup>+</sup>	1.002	1.002
	12	2.021	2.021	1.005 <sup>-</sup>	1.005 <sup>-</sup>
	11	2.040	1.010 <sup>+</sup>	0.001	0.001
	10	1.020	1.020	0.003	0.003
	9	1.037	0.006	0.006	—
	8	0.013	0.013	—	—
	7	0.025 <sup>-</sup>	0.025 <sup>-</sup>	—	—
	6	0.046	—	—	—
	19	7.033	6.009	6.009	5.002
	18	6.036	5.011	4.003	4.003
<b>9</b>	17	5.030	4.009	4.009	3.002
	16	4.022	4.022	3.006	2.001
	15	4.047	3.015 <sup>-</sup>	2.004	2.004
	14	3.030	2.008	2.008	1.002
	13	2.017	2.017	1.004	1.004
	12	2.033	1.008	1.008	0.001
	11	1.016	1.016	0.002	0.002
	10	1.029	0.005 <sup>-</sup>	0.005 <sup>-</sup>	0.005 <sup>-</sup>
	9	0.009	0.009	0.009	—
	8	0.018	0.018	—	—
<b>A = 19 B = 8</b>	7	0.032	—	—	—
	19	6.026	5.006	5.006	4.001
	18	5.026	4.007	4.007	3.001
	17	4.020	4.020	3.005 <sup>-</sup>	3.005 <sup>-</sup>
	16	4.044	3.013	2.003	2.003
	15	3.028	2.007	2.007	1.001
	14	2.015 <sup>-</sup>	2.015 <sup>-</sup>	1.003	1.003
	13	2.029	1.006	1.006	0.001
	12	1.013	1.013	0.002	0.002
	11	1.024	1.024	0.004	0.004
10	1.042	0.007	0.007	—	
9	0.013	0.013	—	—	
8	0.024	0.024	—	—	
7	0.043	—	—	—	
19	5.019	5.019	4.004	4.004	
18	4.017	4.017	3.004	3.004	
17	4.044	3.011	2.002	2.002	
16	3.027	2.006	2.006	1.001	
15	2.013	2.013	1.002	1.002	
14	2.027	1.006	1.006	0.001	
13	2.049	1.011	0.001	0.001	



TABLE J (continued)

	<i>a</i>	Probability			
		0.05	0.025	0.01	0.005
	12	1.021	1.021	0.003	0.003
	11	1.038	0.006	0.006	—
	10	0.011	0.011	—	—
	9	0.020	0.020	—	—
	8	0.034	—	—	—
7	19	4.013	4.013	3.002	3.002
	18	4.047	3.010+	2.002	2.002
	17	3.028	2.006	2.006	1.001
	16	2.014	2.014	1.002	1.002
	15	2.028	1.005+	1.005+	0.001
	14	1.011	1.011	0.001	0.001
	13	1.021	1.021	0.003	0.003
	12	1.037	0.005+	0.005+	—
	11	0.010-	0.010-	0.010-	—
	10	0.017	0.017	—	—
	9	0.030	—	—	—
	8	0.048	—	—	—
6	19	4.050-	3.009	3.009	2.001
	18	3.031	2.005+	2.005+	1.001
	17	2.015+	2.015+	1.002	1.002
	16	2.032	1.006	1.006	0.000
	15	1.012	1.012	0.001	0.001
	14	1.023	1.023	0.003	0.003
	13	1.039	0.005+	0.005+	—
	12	0.010-	0.010-	0.010-	—
	11	0.017	0.017	—	—
	10	0.028	—	—	—
	9	0.045+	—	—	—
5	19	3.036	2.005-	2.005-	2.005-
	18	2.018	2.018	1.002	1.002
	17	2.042	1.006	1.006	0.000
	16	1.014	1.014	0.001	0.001
	15	1.028	0.003	0.003	0.003
	14	1.047	0.006	0.006	—
	13	0.011	0.011	—	—
	12	0.019	0.019	—	—
	11	0.030	—	—	—
	10	0.047	—	—	—
4	19	2.024	2.024	1.002	1.002
	18	1.009	1.009	1.009	0.001
	17	1.021	1.021	0.002	0.002
	16	1.040	0.004	0.004	0.004
	15	0.008	0.008	0.008	—
	14	0.014	0.014	—	—
	13	0.024	0.024	—	—
	12	0.037	—	—	—
3	19	1.013	1.013	0.001	0.001
	18	1.038	0.003	0.003	0.003
	17	0.006	0.006	0.006	—
	16	0.013	0.013	—	—
	15	0.023	0.023	—	—

**TABLE J (continued)**

		Probability					
		<i>a</i>	0.05	0.025	0.01	0.005	
<b>2</b>	<b>A = 19 B = 2</b>	14	0.036	—	—	—	
		19	0.005 <sup>-</sup>	0.005 <sup>-</sup>	0.005 <sup>-</sup>	0.005 <sup>-</sup>	
		18	0.014	0.014	—	—	
		17	0.029	—	—	—	
		16	0.048	—	—	—	
		<b>A = 20 B = 20</b>	20	15.024	15.024	13.004	13.004
			19	14.046	13.022	12.010 <sup>-</sup>	11.004
			18	12.032	11.015 <sup>+</sup>	10.007	9.003
			17	11.041	10.020	9.009	8.004
			16	10.048	9.024	7.005 <sup>-</sup>	7.005 <sup>-</sup>
15	8.027		7.012	6.005 <sup>+</sup>	5.002		
14	7.028		6.013	5.005 <sup>+</sup>	4.002		
13	6.028		5.012	4.005 <sup>-</sup>	4.005 <sup>-</sup>		
12	5.027		4.011	3.004	3.004		
11	4.024		4.024	3.009	2.003		
<b>19</b>	10	4.048	3.020	2.007	1.002		
	9	3.041	2.015 <sup>+</sup>	1.004	1.004		
	8	2.032	1.010 <sup>-</sup>	1.010 <sup>-</sup>	0.002		
	7	1.022	1.022	0.004	0.004		
	6	1.046	0.010 <sup>+</sup>	—	—		
	5	0.024	0.024	—	—		
	20	15.047	14.020	13.008	12.003		
	19	13.039	12.018	11.008	10.003		
	18	11.026	10.012	9.005 <sup>-</sup>	9.005 <sup>-</sup>		
	17	10.032	9.015 <sup>-</sup>	8.006	7.002		
16	9.036	8.017	7.007	6.003			
15	8.038	7.018	6.008	5.003			
14	7.039	6.018	5.007	4.003			
13	6.038	5.017	4.007	3.002			
12	5.035 <sup>+</sup>	4.015 <sup>+</sup>	3.005 <sup>+</sup>	2.002			
11	4.031	3.012	2.004	2.004			
10	3.026	2.009	2.009	1.002			
9	2.019	2.019	1.005 <sup>+</sup>	0.001			
8	2.039	1.012	0.002	0.002			
7	1.026	0.005 <sup>+</sup>	0.005 <sup>+</sup>	—			
6	0.012	0.012	—	—			
5	0.027	—	—	—			
<b>18</b>	20	14.041	13.017	12.007	11.003		
	19	12.032	11.014	10.006	9.002		
	18	11.043	10.020	9.008	8.003		
	17	10.050 <sup>-</sup>	9.024	7.004	7.004		
	16	8.026	7.011	6.005 <sup>-</sup>	6.005 <sup>-</sup>		
	15	7.027	6.012	5.004	5.004		
	14	6.026	5.011	4.004	4.004		
	13	5.024	5.024	4.009	3.003		
	12	5.047	4.020	3.007	2.002		
	11	4.041	3.016	2.005 <sup>+</sup>	1.001		
10	3.033	2.012	1.003	1.003			
9	2.024	2.024	1.007	0.001			
8	2.048	1.015 <sup>-</sup>	0.003	0.003			
7	1.031	0.006	0.006	—			

TABLE J (continued)

		Probability			
	<i>a</i>	0.05	0.025	0.01	0.005
<b>17</b>	6	0 <sub>.014</sub>	0 <sub>.014</sub>	—	—
	5	0 <sub>.031</sub>	—	—	—
	20	13 <sub>.036</sub>	12 <sub>.014</sub>	11 <sub>.005+</sub>	10 <sub>.002</sub>
	19	11 <sub>.026</sub>	10 <sub>.011</sub>	9 <sub>.004</sub>	9 <sub>.004</sub>
	18	10 <sub>.034</sub>	9 <sub>.015-</sub>	8 <sub>.006</sub>	7 <sub>.002</sub>
	17	9 <sub>.038</sub>	8 <sub>.017</sub>	7 <sub>.007</sub>	6 <sub>.003</sub>
	16	8 <sub>.040</sub>	7 <sub>.018</sub>	6 <sub>.007</sub>	5 <sub>.003</sub>
	15	7 <sub>.039</sub>	6 <sub>.017</sub>	5 <sub>.007</sub>	4 <sub>.002</sub>
	14	6 <sub>.037</sub>	5 <sub>.016</sub>	4 <sub>.006</sub>	3 <sub>.002</sub>
	13	5 <sub>.033</sub>	4 <sub>.013</sub>	3 <sub>.005-</sub>	3 <sub>.005-</sub>
	12	4 <sub>.028</sub>	3 <sub>.010+</sub>	2 <sub>.003</sub>	2 <sub>.003</sub>
	11	3 <sub>.022</sub>	3 <sub>.022</sub>	2 <sub>.007</sub>	1 <sub>.002</sub>
	10	3 <sub>.042</sub>	2 <sub>.015+</sub>	1 <sub>.004</sub>	1 <sub>.004</sub>
	9	2 <sub>.031</sub>	1 <sub>.009</sub>	1 <sub>.009</sub>	0 <sub>.001</sub>
<b>16</b>	8	1 <sub>.019</sub>	1 <sub>.019</sub>	0 <sub>.003</sub>	0 <sub>.003</sub>
	7	1 <sub>.037</sub>	0 <sub>.008</sub>	0 <sub>.008</sub>	—
	6	0 <sub>.017</sub>	0 <sub>.017</sub>	—	—
	5	0 <sub>.036</sub>	—	—	—
	20	12 <sub>.031</sub>	11 <sub>.012</sub>	10 <sub>.004</sub>	10 <sub>.004</sub>
	19	11 <sub>.049</sub>	10 <sub>.021</sub>	9 <sub>.008</sub>	8 <sub>.003</sub>
	18	9 <sub>.026</sub>	8 <sub>.011</sub>	7 <sub>.004</sub>	7 <sub>.004</sub>
	17	8 <sub>.028</sub>	7 <sub>.012</sub>	6 <sub>.004</sub>	6 <sub>.004</sub>
	16	7 <sub>.028</sub>	6 <sub>.012</sub>	5 <sub>.004</sub>	5 <sub>.004</sub>
	15	6 <sub>.026</sub>	5 <sub>.011</sub>	4 <sub>.004</sub>	4 <sub>.004</sub>
	14	5 <sub>.023</sub>	5 <sub>.023</sub>	4 <sub>.009</sub>	3 <sub>.003</sub>
	13	5 <sub>.046</sub>	4 <sub>.019</sub>	3 <sub>.007</sub>	2 <sub>.002</sub>
	12	4 <sub>.038</sub>	3 <sub>.014</sub>	2 <sub>.004</sub>	2 <sub>.004</sub>
	11	3 <sub>.029</sub>	2 <sub>.010-</sub>	2 <sub>.010-</sub>	1 <sub>.002</sub>
10	2 <sub>.020</sub>	2 <sub>.020</sub>	1 <sub>.005+</sub>	0 <sub>.001</sub>	
9	2 <sub>.039</sub>	1 <sub>.011</sub>	0 <sub>.002</sub>	0 <sub>.002</sub>	
8	1 <sub>.023</sub>	1 <sub>.023</sub>	0 <sub>.004</sub>	0 <sub>.004</sub>	
7	1 <sub>.045+</sub>	0 <sub>.009</sub>	0 <sub>.009</sub>	—	
6	0 <sub>.020</sub>	0 <sub>.020</sub>	—	—	
5	0 <sub>.041</sub>	—	—	—	
<b>15</b>	20	11 <sub>.026</sub>	10 <sub>.009</sub>	10 <sub>.009</sub>	9 <sub>.003</sub>
	19	10 <sub>.040</sub>	9 <sub>.016</sub>	8 <sub>.006</sub>	7 <sub>.002</sub>
	18	9 <sub>.046</sub>	8 <sub>.019</sub>	7 <sub>.007</sub>	6 <sub>.002</sub>
	17	8 <sub>.047</sub>	7 <sub>.020</sub>	6 <sub>.008</sub>	5 <sub>.002</sub>
	16	7 <sub>.045-</sub>	6 <sub>.019</sub>	5 <sub>.007</sub>	4 <sub>.002</sub>
	15	6 <sub>.040</sub>	5 <sub>.017</sub>	4 <sub>.006</sub>	3 <sub>.002</sub>
	14	5 <sub>.034</sub>	4 <sub>.013</sub>	3 <sub>.004</sub>	3 <sub>.004</sub>
	13	4 <sub>.028</sub>	3 <sub>.010-</sub>	3 <sub>.010-</sub>	2 <sub>.003</sub>
	12	3 <sub>.020</sub>	3 <sub>.020</sub>	2 <sub>.006</sub>	1 <sub>.001</sub>
	11	3 <sub>.039</sub>	2 <sub>.013</sub>	1 <sub>.003</sub>	1 <sub>.003</sub>
	10	2 <sub>.026</sub>	1 <sub>.007</sub>	1 <sub>.007</sub>	0 <sub>.001</sub>
	9	2 <sub>.049</sub>	1 <sub>.015-</sub>	0 <sub>.002</sub>	0 <sub>.002</sub>
	8	1 <sub>.029</sub>	0 <sub>.005+</sub>	0 <sub>.005+</sub>	—
	7	0 <sub>.012</sub>	0 <sub>.012</sub>	—	—
6	0 <sub>.024</sub>	0 <sub>.024</sub>	—	—	
5	0 <sub>.048</sub>	—	—	—	
<b>14</b>	20	10 <sub>.022</sub>	10 <sub>.022</sub>	9 <sub>.007</sub>	8 <sub>.002</sub>

**TABLE J (continued)**

		Probability				
		<i>a</i>	0.05	0.025	0.01	0.005
		19	9.032	8.012	7.004	7.004
		18	8.035 <sup>+</sup>	7.014	6.005 <sup>-</sup>	6.005 <sup>-</sup>
		17	7.035 <sup>-</sup>	6.013	5.005 <sup>-</sup>	5.005 <sup>-</sup>
		16	6.031	5.012	4.004	4.004
		15	5.026	4.009	4.009	3.003
		14	4.020	4.020	3.007	2.002
		13	4.040	3.015 <sup>-</sup>	2.004	2.004
		12	3.029	2.009	2.009	1.002
		11	2.018	2.018	1.005 <sup>-</sup>	1.005 <sup>-</sup>
		10	2.035 <sup>+</sup>	1.010 <sup>-</sup>	1.010 <sup>-</sup>	0.001
		9	1.019	1.019	0.003	0.003
		8	1.037	0.007	0.007	—
		7	0.014	0.014	—	—
		6	0.029	—	—	—
<b>13</b>		20	9.017	9.017	8.005 <sup>+</sup>	7.002
		19	8.025 <sup>-</sup>	8.025 <sup>-</sup>	7.008	6.003
		18	7.026	6.009	6.009	5.003
		17	6.024	6.024	5.008	4.002
		16	5.020	5.020	4.007	3.002
		15	5.041	4.015 <sup>+</sup>	3.005 <sup>-</sup>	3.005 <sup>-</sup>
		14	4.031	3.011	2.003	2.003
		13	3.022	3.022	2.006	1.001
		12	3.041	2.013	1.003	1.003
		11	2.026	1.007	1.007	0.001
		10	2.047	1.013	0.002	0.002
		9	1.026	0.004	0.004	0.004
		8	1.047	0.009	0.009	—
	7	0.018	0.018	—	—	
	6	0.035 <sup>-</sup>	—	—	—	
<b>12</b>		20	9.044	8.014	7.004	7.004
		19	7.019	7.019	6.006	5.002
		18	6.018	6.018	5.006	4.002
		17	6.043	5.016	4.005 <sup>-</sup>	4.005 <sup>-</sup>
		16	5.034	4.012	3.003	3.003
		15	4.025 <sup>+</sup>	3.008	3.008	2.002
		14	4.049	3.017	2.005 <sup>-</sup>	2.005 <sup>-</sup>
		13	3.033	2.010 <sup>-</sup>	2.010 <sup>-</sup>	1.002
		12	2.020	2.020	1.005 <sup>-</sup>	1.005 <sup>-</sup>
		11	2.036	1.009	1.009	0.001
		10	1.018	1.018	0.003	0.003
		9	1.034	0.006	0.006	—
		8	0.012	0.012	—	—
	7	0.023	0.023	—	—	
	6	0.043	—	—	—	
<b>11</b>		20	8.037	7.010 <sup>+</sup>	6.003	6.003
		19	7.042	6.013	5.004	5.004
		18	6.037	5.012	4.003	4.003
		17	5.029	4.009	4.009	3.002
		16	4.021	4.021	3.006	2.001
		15	4.042	3.014	2.003	2.003
		14	3.028	2.008	2.008	1.001

*A* = 20 *B* = 13



TABLE J (continued)

		Probability			
	<i>a</i>	0.05	0.025	0.01	0.005
	13	2.016	2.016	1.003	1.003
	12	2.029	1.007	1.007	0.001
	11	1.014	1.014	0.002	0.002
	10	1.026	0.004	0.004	0.004
	9	1.046	0.008	0.008	—
	8	0.016	0.016	—	—
	7	0.029	—	—	—
<b>10</b>	20	7.030	6.008	6.008	5.002
	19	6.031	5.009	5.009	4.002
	18	5.026	4.007	4.007	3.002
	17	4.018	4.018	3.005 <sup>-</sup>	3.005 <sup>-</sup>
	16	4.039	3.012	2.003	2.003
	15	3.024	3.024	2.006	1.001
	14	3.045 <sup>+</sup>	2.013	1.003	1.003
	13	2.025 <sup>+</sup>	1.006	1.006	0.001
	12	2.045 <sup>-</sup>	1.011	0.001	0.001
	11	1.021	1.021	0.003	0.003
	10	1.037	0.006	0.006	—
	9	0.012	0.012	—	—
	8	0.022	0.022	—	—
	7	0.038	—	—	—
<b>9</b>	20	6.023	6.023	5.005 <sup>+</sup>	4.001
	19	5.022	5.022	4.005 <sup>+</sup>	3.001
	18	4.016	4.016	3.004	3.004
	17	4.037	3.010 <sup>+</sup>	2.002	2.002
	16	3.022	3.022	2.005 <sup>+</sup>	1.001
	15	3.043	2.012	1.002	1.002
	14	2.023	2.023	1.005 <sup>-</sup>	1.005 <sup>-</sup>
	13	2.041	1.009	1.009	0.001
	12	1.018	1.018	0.002	0.002
	11	1.032	0.005 <sup>-</sup>	0.005 <sup>-</sup>	0.005 <sup>-</sup>
<b>A = 20 B = 9</b>	10	0.009	0.009	0.009	—
	9	0.017	0.017	—	—
	8	0.029	—	—	—
	7	0.050 <sup>-</sup>	—	—	—
<b>8</b>	20	5.017	5.017	4.003	4.003
	19	4.015 <sup>-</sup>	4.015 <sup>-</sup>	3.003	3.003
	18	4.038	3.009	3.009	2.002
	17	3.022	3.022	2.005 <sup>-</sup>	2.005 <sup>-</sup>
	16	3.044	2.011	1.002	1.002
	15	2.022	2.022	1.004	1.004
	14	2.040	1.009	1.009	0.001
	13	1.016	1.016	0.002	0.002
	12	1.029	0.004	0.004	0.004
	11	1.048	0.008	0.008	—
	10	0.014	0.014	—	—
	9	0.024	0.024	—	—
	8	0.041	—	—	—
<b>7</b>	20	4.012	4.012	3.002	3.002
	19	4.042	3.009	3.009	2.001
	18	3.024	3.024	2.005 <sup>-</sup>	2.005 <sup>-</sup>

**TABLE J (continued)**

		Probability			
	<i>a</i>	0.05	0.025	0.01	0.005
	17	3.050 <sup>-</sup>	2.011	1.002	1.002
	16	2.023	2.023	1.004	1.004
	15	2.043	1.009	1.009	0.001
	14	1.016	1.016	0.002	0.002
	13	1.029	0.004	0.004	0.004
	12	1.048	0.007	0.007	—
	11	0.013	0.013	—	—
	10	0.022	0.022	—	—
	9	0.036	—	—	—
<b>6</b>	20	4.046	3.008	3.008	2.001
	19	3.028	2.005 <sup>-</sup>	2.005 <sup>-</sup>	2.005 <sup>-</sup>
	18	2.013	2.013	1.002	1.002
	17	2.028	1.004	1.004	1.004
	16	1.010 <sup>-</sup>	1.010 <sup>-</sup>	1.010 <sup>-</sup>	0.001
	15	1.018	1.018	0.002	0.002
	14	1.032	0.004	0.004	0.004
	13	0.007	0.007	0.007	—
	12	0.013	0.013	—	—
	11	0.022	0.022	—	—
	10	0.035 <sup>-</sup>	—	—	—
<b>5</b>	20	3.033	2.004	2.004	2.004
	19	2.016	2.016	1.002	1.002
	18	2.038	1.005 <sup>+</sup>	1.005 <sup>+</sup>	0.000
	17	1.012	1.012	0.001	0.001
	16	1.023	1.023	0.002	0.002
	15	1.040	0.005 <sup>-</sup>	0.005 <sup>-</sup>	0.005 <sup>-</sup>
	14	0.009	0.009	0.009	—
	13	0.015 <sup>-</sup>	0.015 <sup>-</sup>	—	—
	12	0.024	0.024	—	—
	11	0.038	—	—	—
<b>4</b>	20	2.022	2.022	1.002	1.002
	19	1.008	1.008	1.008	0.000
	18	1.018	1.018	0.001	0.001
	17	1.035 <sup>+</sup>	0.003	0.003	0.003
	16	0.007	0.007	0.007	—
	15	0.012	0.012	—	—
	14	0.020	0.020	—	—
	13	0.031	—	—	—
	12	0.047	—	—	—
<b>3</b>	20	1.012	1.012	0.001	0.001
	19	1.034	0.002	0.002	0.002
<b>A = 20 B = 3</b>	18	0.006	0.006	0.006	—
	17	0.011	0.011	—	—
	16	0.020	0.020	—	—
	15	0.032	—	—	—
	14	0.047	—	—	—
<b>2</b>	20	0.004	0.004	0.004	0.004
	19	0.013	0.013	—	—
	18	0.026	—	—	—
	17	0.043	—	—	—
<b>1</b>	20	0.048	—	—	—

**TABLE K Probability Levels for the Wilcoxon Signed Rank Test**

<i>n</i> = 5		<i>n</i> = 8		<i>n</i> = 10		<i>n</i> = 11		<i>n</i> = 12		<i>n</i> = 13	
T	P	T	P	T	P	T	P	T	P	T	P
<sup>a</sup> 0	.0313	0	.0039	0	.0010	0	.0005	0	.0002	0	.0001
1	.0625	1	.0078	1	.0020	1	.0010	1	.0005	1	.0002
2	.0938	2	.0117	2	.0029	2	.0015	2	.0007	2	.0004
3	.1563	3	.0195	3	.0049	3	.0024	3	.0012	3	.0006
4	.2188	4	.0273	4	.0068	4	.0034	4	.0017	4	.0009
5	.3125	<sup>a</sup> 5	.0391	5	.0098	5	.0049	5	.0024	5	.0012
6	.4063	6	.0547	6	.0137	6	.0068	6	.0034	6	.0017
7	.5000	7	.0742	7	.0186	7	.0093	7	.0046	7	.0023
		8	.0977	8	.0244	8	.0122	8	.0061	8	.0031
		9	.1250	9	.0322	9	.0161	9	.0081	9	.0040
<i>n</i> = 6		10	.1563	<sup>a</sup> 10	.0420	10	.0210	10	.0105	10	.0052
0	.0156	11	.1914	11	.0527	11	.0269	11	.0134	11	.0067
1	.0313	12	.2305	12	.0654	12	.0337	12	.0171	12	.0085
<sup>a</sup> 2	.0469	13	.2734	13	.0801	<sup>a</sup> 13	.0415	13	.0212	13	.0107
3	.0781	14	.3203	14	.0967	14	.0508	14	.0261	14	.0133
4	.1094	15	.3711	15	.1162	15	.0615	15	.0320	15	.0164
5	.1563	16	.4219	16	.1377	16	.0737	16	.0386	16	.0199
6	.2188	17	.4727	17	.1611	17	.0874	<sup>a</sup> 17	.0461	17	.0239
7	.2813	18	.5273	18	.1875	18	.1030	18	.0549	18	.0287
8	.3438	<i>n</i> = 9		19	.2158	19	.1201	19	.0647	19	.0341
9	.4219	0	.0020	20	.2461	20	.1392	20	.0757	20	.0402
10	.5000	1	.0039	21	.2783	21	.1602	21	.0881	<sup>a</sup> 21	.0471
		2	.0059	22	.3125	22	.1826	22	.1018	22	.0549
<i>n</i> = 7		3	.0098	23	.3477	23	.2065	23	.1167	23	.0636
0	.0078	4	.0137	24	.3848	24	.2324	24	.1331	24	.0732
1	.0156	5	.0195	25	.4229	25	.2598	25	.1506	25	.0839
2	.0234	6	.0273	26	.4609	26	.2886	26	.1697	26	.0955
<sup>a</sup> 3	.0391	7	.0371	27	.5000	27	.3188	27	.1902	27	.1082
4	.0547	8	.0488			28	.3501	28	.2119	28	.1219
5	.0781	9	.0645			29	.3823	29	.2349	29	.1367
6	.1094	10	.0820			30	.4155	30	.2593	30	.1527
7	.1484	11	.1016			31	.4492	31	.2847	31	.1698
8	.1875	12	.1250			32	.4829	32	.3110	32	.1879
9	.2344	13	.1504			33	.5171	33	.3386	33	.2072
10	.2891	14	.1797					34	.3667	34	.2274
11	.3438	15	.2129					35	.3955	35	.2487
12	.4063										

<sup>a</sup>For given *n*, the smallest rank total for which the probability level is equal to or less than 0.0500.

**TABLE K (continued)**

<i>n</i> = 7		<i>n</i> = 9		<i>n</i> = 12		<i>n</i> = 13	
T	P	T	P	T	P	T	P
13	.4688	16	.2480	36	.4250	36	.2709
14	.5313	17	.2852	37	.4548	37	.2939
		18	.3262	38	.4849	38	.3177
		19	.3672	39	.5151	39	.3424
		20	.4102			40	.3677
		21	.4551			41	.3934
		22	.5000			42	.4197
						43	.4463
						44	.4730
						45	.5000

<i>n</i> = 14		<i>n</i> = 14		<i>n</i> = 15		<i>n</i> = 16		<i>n</i> = 17		<i>n</i> = 17	
T	P	T	P	T	P	T	P	T	P	T	P
0	.0001	50	.4516	47	.2444	39	.0719	25	.0064	74	.4633
2	.0002	51	.4758	48	.2622	40	.0795	26	.0075	75	.4816
3	.0003	52	.5000	49	.2807	41	.0877	27	.0087	76	.5000
4	.0004			50	.2997	42	.0964	28	.0101		
5	.0006		<i>n</i> = 15	51	.3193	43	.1057	29	.0116		<i>n</i> = 18
6	.0009	1	.0001	52	.3394	44	.1156	30	.0133	6	.0001
7	.0012	3	.0002	53	.3599	45	.1261	31	.0153	10	.0002
8	.0015	5	.0003	54	.3808	46	.1372	32	.0174	12	.0003
9	.0020	6	.0004	55	.4020	47	.1489	33	.0198	14	.0004
10	.0026	7	.0006	56	.4235	48	.1613	34	.0224	15	.0005
11	.0034	8	.0008	57	.4452	49	.1742	35	.0253	16	.0006
12	.0043	9	.0010	58	.4670	50	.1877	36	.0284	17	.0008
13	.0054	10	.0013	59	.4890	51	.2019	37	.0319	18	.0010
14	.0067	11	.0017	60	.5110	52	.2166	38	.0357	19	.0012
15	.0083	12	.0021		<i>n</i> = 16	53	.2319	39	.0398	20	.0014
16	.0101	13	.0027	3	.0001	54	.2477	40	.0443	21	.0017
17	.0123	14	.0034	5	.0002	55	.2641	41	.0492	22	.0020
18	.0148	15	.0042	7	.0003	56	.2809	42	.0544	23	.0024
19	.0176	16	.0051	8	.0004	57	.2983	43	.0601	24	.0028
20	.0209	17	.0062	9	.0005	58	.3161	44	.0662	25	.0033
21	.0247	18	.0075	10	.0007	59	.3343	45	.0727	26	.0038
22	.0290	19	.0090	11	.0008	60	.3529	46	.0797	27	.0045
23	.0338	20	.0108	12	.0011	61	.3718	47	.0871	28	.0052
24	.0392	21	.0128	13	.0013	62	.3910	48	.0950	29	.0060



TABLE K (continued)

<i>n</i> = 14		<i>n</i> = 15		<i>n</i> = 16		<i>n</i> = 16		<i>n</i> = 17		<i>n</i> = 18	
T	P	T	P	T	P	T	P	T	P	T	P
<sup>a</sup> 25	.0453	22	.0151	14	.0017	63	.4104	49	.1034	30	.0069
26	.0520	23	.0177	15	.0021	64	.4301	50	.1123	31	.0080
27	.0594	24	.0206	16	.0026	65	.4500	51	.1218	32	.0091
28	.0676	25	.0240	17	.0031	66	.4699	52	.1317	33	.0104
29	.0765	26	.0277	18	.0038	67	.4900	53	.1421	34	.0118
30	.0863	27	.0319	19	.0046	68	.5100	54	.1530	35	.0134
31	.0969	28	.0365	20	.0055			55	.1645	36	.0152
32	.1083	29	.0416	21	.0065	<i>n</i> = 17		56	.1764	37	.0171
33	.1206	<sup>a</sup> 30	.0473	22	.0078	4	.0001	57	.1889	38	.0192
34	.1338	31	.0535	23	.0091	8	.0002	58	.2019	39	.0216
35	.1479	32	.0603	24	.0107	9	.0003	59	.2153	40	.0241
36	.1629	33	.0677	25	.0125	11	.0004	60	.2293	41	.0269
37	.1788	34	.0757	26	.0145	12	.0005	61	.2437	42	.0300
38	.1955	35	.0844	27	.0168	13	.0007	62	.2585	43	.0333
39	.2131	36	.0938	28	.0193	14	.0008	63	.2738	44	.0368
40	.2316	37	.1039	29	.0222	15	.0010	64	.2895	45	.0407
41	.2508	38	.1147	30	.0253	16	.0013	65	.3056	46	.0449
42	.2708	39	.1262	31	.0288	17	.0016	66	.3221	<sup>a</sup> 47	.0494
43	.2915	40	.1384	32	.0327	18	.0019	67	.3389	48	.0542
44	.3129	41	.1514	33	.0370	19	.0023	68	.3559	49	.0594
45	.3349	42	.1651	34	.0416	20	.0028	69	.3733	50	.0649
46	.3574	43	.1796	<sup>a</sup> 35	.0467	21	.0033	70	.3910	51	.0708
47	.3804	44	.1947	36	.0523	22	.0040	70	.4088	52	.0770
48	.4039	45	.2106	37	.0583	23	.0047	72	.4268	53	.0837
49	.4276	46	.2271	38	.0649	24	.0055	73	.4450	54	.0907
<i>n</i> = 18		<i>n</i> = 19		<i>n</i> = 19		<i>n</i> = 20		<i>n</i> = 20		<i>n</i> = 21	
T	P	T	P	T	P	T	P	T	P	T	P
55	.0982	30	.0036	79	.2706	48	.0164	97	.3921	61	.0298
56	.1061	31	.0041	80	.2839	49	.0181	98	.4062	62	.0323
57	.1144	32	.0047	81	.2974	50	.0200	99	.4204	63	.0351
58	.1231	33	.0054	82	.3113	51	.0220	100	.4347	64	.0380
59	.1323	34	.0062	83	.3254	52	.0242	101	.4492	65	.0411
60	.1419	35	.0070	84	.3397	53	.0266	102	.4636	66	.0444
61	.1519	36	.0080	85	.3543	54	.0291	103	.4782	<sup>a</sup> 67	.0479
62	.1624	37	.0090	86	.3690	55	.0319	104	.4927	68	.0516
63	.1733	38	.0102	87	.3840	56	.0348	105	.5073	69	.0555
64	.1846	39	.0115	88	.3991	57	.0379	<i>n</i> = 21		70	.0597
65	.1964	40	.0129	89	.4144	58	.0413	14	.0001	71	.0640
66	.2086	41	.0145	.90	.4298	59	.0448	20	.0002	72	.0686



TABLE K (continued)

<i>n</i> = 21		<i>n</i> = 22		<i>n</i> = 22		<i>n</i> = 23		<i>n</i> = 23		<i>n</i> = 24	
T	P	T	P	T	P	T	P	T	P	T	P
110	.4324	67	.0271	116	.3751	68	.0163	117	.2700	62	.0053
111	.4459	68	.0293	117	.3873	69	.0177	118	.2800	63	.0058
112	.4593	69	.0317	118	.3995	70	.0192	119	.2902	64	.0063
113	.4729	70	.0342	119	.4119	71	.0208	120	.3005	65	.0069
114	.4864	71	.0369	120	.4243	72	.0224	121	.3110	66	.0075
115	.5000	72	.0397	121	.4368	73	.0242	122	.3217	67	.0082
		73	.0427	122	.4494	74	.0261	123	.3325	68	.0089
		74	.0459	123	.4620	75	.0281	124	.3434	69	.0097
		<sup>a</sup> 75	.0492	124	.4746	76	.0303	125	.3545	70	.0106
		<i>n</i> = 22		125	.4873	77	.0325	126	.3657	71	.0115
18	.0001	76	.0527	126	.5000	78	.0349	127	.3770	72	.0124
23	.0002	77	.0564			79	.0374	128	.3884	73	.0135
26	.0003	78	.0603			80	.0401	129	.3999	74	.0146
29	.0004	79	.0644		<i>n</i> = 23	81	.0429	130	.4115	75	.0157
30	.0005	80	.0687	21	.0001	82	.0459	131	.4231	76	.0170
32	.0006	81	.0733	28	.0002	83	.0490	132	.4348	77	.0183
33	.0007	82	.0780	31	.0003	84	.0523	133	.4466	78	.0197
34	.0008	83	.0829	33	.0004	85	.0557	134	.4584	79	.0212
35	.0010	84	.0881	35	.0005	86	.0593	135	.4703	80	.0228
36	.0011	85	.0935	36	.0006	87	.0631	136	.4822	81	.0245
37	.0013	86	.0991	38	.0007	88	.0671	137	.4941	82	.0263
38	.0014	87	.1050	39	.0008	89	.0712	138	.5060	83	.0282
39	.0016	88	.1111	40	.0009	90	.0755			84	.0302
40	.0018	89	.1174	41	.0011	91	.0801		<i>n</i> = 24	85	.0323
41	.0021	90	.1240	42	.0012	92	.0848	25	.0001	86	.0346
42	.0023	91	.1308	43	.0014	93	.0897	32	.0002	87	.0369
43	.0026	92	.1378	44	.0015	94	.0948	36	.0003	88	.0394
44	.0030	93	.1451	45	.0017	95	.1001	38	.0004	89	.0420
45	.0033	94	.1527	46	.0019	96	.1056	40	.0005	90	.0447
46	.0037	95	.1604	47	.0022	97	.1113	42	.0006	<sup>a</sup> 91	.0475
47	.0042	96	.1685	48	.0024	98	.1172	43	.0007	92	.0505
48	.0046	97	.1767	49	.0027	99	.1234	44	.0008	93	.0537
49	.0052	98	.1853	50	.0030	100	.1297	45	.0009	94	.0570
50	.0057	99	.1940	51	.0034	101	.1363	46	.0010	95	.0604
51	.0064	100	.2030	52	.0037	102	.1431	47	.0011	96	.0640
52	.0070	101	.2122	53	.0041	103	.1501	48	.0013	97	.0678
53	.0078	102	.2217	54	.0046	104	.1573	49	.0014	98	.0717
54	.0086	103	.2314	55	.0051						

**TABLE K (continued)**

<i>n</i> = 22		<i>n</i> = 22		<i>n</i> = 23		<i>n</i> = 23		<i>n</i> = 24		<i>n</i> = 24	
T	P	T	P	T	P	T	P	T	P	T	P
55	.0095	104	.2413	56	.0056	105	.1647	50	.0016	99	.0758
56	.0104	105	.2514	57	.0061	106	.1723	51	.0018	100	.0800
57	.0115	106	.2618	58	.0068	107	.1802	52	.0020	101	.0844
58	.0126	107	.2723	59	.0074	108	.1883	53	.0022	102	.0890
59	.0138	108	.2830	60	.0082	109	.1965	54	.0024	103	.0938
60	.0151	109	.2940	61	.0089	110	.2050	55	.0027	104	.0987
61	.0164	110	.3051	62	.0098	111	.2137	56	.0029	105	.1038
62	.0179	111	.3164	63	.0107	112	.2226	57	.0033	106	.1091
63	.0195	112	.3278	64	.0117	113	.2317	58	.0036	107	.1146
64	.0212	113	.3394	65	.0127	114	.2410	59	.0040	108	.1203
65	.0231	114	.3512	66	.0138	115	.2505	60	.0044	109	.1261
66	.0250	115	.3631	67	.0150	116	.2601	61	.0048	110	.1322
<i>n</i> = 24		<i>n</i> = 25		<i>n</i> = 25		<i>n</i> = 25		<i>n</i> = 26		<i>n</i> = 26	
T	P	T	P	T	P	T	P	T	P	T	P
111	.1384	50	.0008	99	.0452	148	.3556	81	.0076	130	.1289
112	.1448	51	.0009	<sup>a</sup> 100	.0479	149	.3655	82	.0082	131	.1344
113	.1515	52	.0010	101	.0507	150	.3755	83	.0088	132	.1399
114	.1583	53	.0011	102	.0537	151	.3856	84	.0095	133	.1457
115	.1653	54	.0013	103	.0567	152	.3957	85	.0102	134	.1516
116	.1724	55	.0014	104	.0600	153	.4060	86	.0110	135	.1576
117	.1798	56	.0015	105	.0633	154	.4163	87	.0118	136	.1638
118	.1874	57	.0017	106	.0668	155	.4266	88	.0127	137	.1702
119	.1951	58	.0019	107	.0705	156	.4370	89	.0136	138	.1767
120	.2031	59	.0021	108	.0742	157	.4474	90	.0146	139	.1833
121	.2112	60	.0023	109	.0782	158	.4579	91	.0156	140	.1901
122	.2195	61	.0025	110	.0822	159	.4684	92	.0167	141	.1970
123	.2279	62	.0028	111	.0865	160	.4789	93	.0179	142	.2041
124	.2366	63	.0031	112	.0909	161	.4895	94	.0191	143	.2114
125	.2454	64	.0034	113	.0954	162	.5000	95	.0204	144	.2187
126	.2544	65	.0037	114	.1001			96	.0217	145	.2262
127	.2635	66	.0040	115	.1050	<i>n</i> = 26		97	.0232	146	.2339
128	.2728	67	.0044	116	.1100	34	.0001	98	.0247	147	.2417
129	.2823	68	.0048	117	.1152	42	.0002	99	.0263	148	.2496
130	.2919	69	.0053	118	.1205	46	.0003	100	.0279	149	.2577
131	.3017	70	.0057	119	.1261	49	.0004	101	.0297	150	.2658
132	.3115	71	.0062	120	.1317	51	.0005	102	.0315	151	.2741
133	.3216	72	.0068	121	.1376	53	.0006	103	.0334	152	.2826
134	.3317	73	.0074	122	.1436	55	.0007	104	.0355	153	.2911



TABLE K (continued)

<i>n</i> = 24		<i>n</i> = 25		<i>n</i> = 25		<i>n</i> = 26		<i>n</i> = 26		<i>n</i> = 26	
T	P	T	P	T	P	T	P	T	P	T	P
135	.3420	74	.0080	123	.1498	56	.0008	105	.0376	154	.2998
136	.3524	75	.0087	124	.1562	57	.0009	106	.0398	155	.3085
137	.3629	76	.0094	125	.1627	58	.0010	107	.0421	156	.3174
138	.3735	77	.0101	126	.1694	59	.0011	108	.0455	157	.3264
139	.3841	78	.0110	127	.1763	60	.0012	109	.0470	158	.3355
140	.3949	79	.0118	128	.1833	61	.0013	<sup>a</sup> 110	.0497	159	.3447
141	.4058	80	.0128	129	.1905	62	.0015	111	.0524	160	.3539
142	.4167	81	.0137	130	.1979	63	.0016	112	.0553	161	.3633
143	.4277	82	.0148	131	.2054	64	.0018	113	.0582	162	.3727
144	.4387	83	.0159	132	.2131	65	.0020	114	.0613	163	.3822
145	.4498	84	.0171	133	.2209	66	.0021	115	.0646	164	.3918
146	.4609	85	.0183	134	.2289	67	.0023	116	.0679	165	.4014
147	.4721	86	.0197	135	.2371	68	.0026	117	.0714	166	.4111
148	.4832	87	.0211	136	.2454	69	.0028	118	.0750	167	.4208
149	.4944	88	.0226	137	.2539	70	.0031	119	.0787	168	.4306
150	.5056	89	.0241	130	.2625	71	.0033	120	.0825	169	.4405
		90	.0258	139	.2712	72	.0036	121	.0865	170	.4503
		91	.0275	140	.2801	73	.0040	122	.0907	171	.4602
		<i>n</i> = 25									
29	.0001	92	.0294	141	.2891	74	.0043	123	.0950	172	.4702
37	.0002	93	.0313	142	.2983	75	.0047	124	.0994	173	.4801
41	.0003	94	.0334	143	.3075	76	.0051	125	.1039	174	.4900
43	.0004	95	.0355	144	.3169	77	.0055	126	.1086	175	.5000
45	.0005	96	.0377	145	.3264	78	.0060	127	.1135		
47	.0006	97	.0401	146	.3360	79	.0065	128	.1185		
48	.0007	98	.0426	147	.3458	80	.0070	129	.1236		
		<i>n</i> = 27		<i>n</i> = 27		<i>n</i> = 27		<i>n</i> = 28		<i>n</i> = 28	
		T	P	T	P	T	P	T	P	T	P
39	.0001	105	.0218	154	.2066	74	.0012	123	.0349	172	.2466
47	.0002	106	.0231	155	.2135	75	.0013	124	.0368	173	.2538
52	.0003	107	.0246	156	.2205	76	.0015	125	.0387	174	.2611
55	.0004	108	.0260	157	.2277	77	.0016	126	.0407	175	.2685
57	.0005	109	.0276	158	.2349	78	.0017	127	.0428	176	.2759
59	.0006	110	.0292	159	.2423	79	.0019	128	.0450	177	.2835
61	.0007	111	.0309	160	.2498	80	.0020	129	.0473	178	.2912
62	.0008	112	.0327	161	.2574	81	.0022	<sup>a</sup> 130	.0496	179	.2990
64	.0009	113	.0346	162	.2652	82	.0024	131	.0521	180	.3068
65	.0010	114	.0366	163	.2730	83	.0026	132	.0546	181	.3148
66	.0011	115	.0386	164	.2810	84	.0028	133	.0573	182	.3228
67	.0012	116	.0407	165	.2890	85	.0030	134	.0600	183	.3309

**TABLE K (continued)**

<i>n</i> = 27		<i>n</i> = 27		<i>n</i> = 27		<i>n</i> = 28		<i>n</i> = 28		<i>n</i> = 28	
T	P	T	P	T	P	T	P	T	P	T	P
68	.0014	117	.0430	166	.2972	86	.0033	135	.0628	184	.3391
69	.0015	118	.0453	167	.3055	87	.0035	136	.0657	185	.3474
70	.0016	<sup>a</sup> 119	.0477	168	.3138	88	.0038	137	.0688	186	.3557
71	.0018	120	.0502	169	.3223	89	.0041	138	.0719	187	.3641
72	.0019	121	.0528	170	.3308	90	.0044	139	.0751	188	.3725
73	.0021	122	.0555	171	.3395	91	.0048	140	.0785	189	.3811
74	.0023	123	.0583	172	.3482	92	.0051	141	.0819	190	.3896
75	.0025	124	.0613	173	.3570	93	.0055	142	.0855	191	.3983
76	.0027	125	.0643	174	.3659	94	.0059	143	.0891	192	.4070
77	.0030	126	.0674	175	.3748	95	.0064	144	.0929	193	.4157
78	.0032	127	.0707	176	.3838	96	.0068	145	.0968	194	.4245
79	.0035	128	.0741	177	.3929	97	.0073	146	.1008	195	.4333
80	.0038	129	.0776	178	.4020	98	.0078	147	.1049	196	.4421
81	.0041	130	.0812	179	.4112	99	.0084	148	.1091	197	.4510
82	.0044	131	.0849	180	.4204	100	.0089	149	.1135	198	.4598
83	.0048	132	.0888	181	.4297	101	.0096	150	.1180	199	.4687
84	.0052	133	.0927	182	.4390	102	.0102	151	.1225	200	.4777
85	.0056	134	.0968	183	.4483	103	.0109	152	.1273	201	.4866
86	.0060	135	.1010	184	.4577	104	.0116	153	.1321	202	.4955
87	.0065	136	.1054	185	.4670	105	.0124	154	.1370	203	.5045
88	.0070	137	.1099	186	.4764	106	.0132	155	.1421		
89	.0075	138	.1145	187	.4859	107	.0140	156	.1473	<i>n</i> = 28	
90	.0081	139	.1193	188	.4953	108	.0149	157	.1526	50	.0001
91	.0087	140	.1242	189	.5047	109	.0159	158	.1580	59	.0002
92	.0093	141	.1292			110	.0168	159	.1636	65	.0003
93	.0100	142	.1343	<i>n</i> = 28		111	.0179	160	.1693	68	.0004
94	.0107	143	.1396	44	.0001	112	.0190	161	.1751	71	.0005
95	.0115	144	.1450	53	.0002	113	.0201	162	.1810	73	.0006
96	.0123	145	.1506	58	.0003	114	.0213	163	.1870	75	.0007
97	.0131	146	.1563	61	.0004	115	.0226	164	.1932	76	.0008
98	.0140	147	.1621	64	.0005	116	.0239	165	.1995	78	.0009
99	.0150	148	.1681	66	.0006	117	.0252	166	.2059	79	.0010
100	.0159	149	.1742	68	.0007	118	.0267	167	.2124	80	.0011
101	.0170	150	.1804	69	.0008	119	.0282	168	.2190	81	.0012
102	.0181	151	.1868	70	.0009	120	.0298	169	.2257	82	.0013
103	.0193	152	.1932	72	.0010	121	.0314	170	.2326	83	.0014
104	.0205	153	.1999	73	.0011	122	.0331	171	.2395	84	.0015

TABLE K (continued)

<i>n</i> = 29		<i>n</i> = 29		<i>n</i> = 29		<i>n</i> = 30		<i>n</i> = 30		<i>n</i> = 30	
T	P	T	P	T	P	T	P	T	P	T	P
85	.0016	134	.0362	183	.2340	90	.0013	139	.0275	188	.1854
86	.0018	135	.0380	184	.2406	91	.0014	140	.0288	189	.1909
87	.0019	136	.0399	185	.2473	92	.0015	141	.0303	190	.1965
88	.0021	137	.0418	186	.2541	93	.0016	142	.0318	191	.2022
89	.0022	138	.0439	187	.2611	94	.0017	143	.0333	192	.2081
90	.0024	139	.0460	188	.2681	95	.0019	144	.0349	193	.2140
91	.0026	<sup>a</sup> 140	.0482	189	.2752	96	.0020	145	.0366	194	.2200
92	.0028	141	.0504	190	.2824	97	.0022	146	.0384	195	.2261
93	.0030	142	.0528	191	.2896	98	.0023	147	.0402	196	.2323
94	.0032	143	.0552	192	.2970	99	.0025	148	.0420	197	.2386
95	.0035	144	.0577	193	.3044	100	.0027	149	.0440	198	.2449
96	.0037	145	.0603	194	.3120	101	.0029	150	.0460	119	.2514
97	.0040	146	.0630	195	.3196	102	.0031	<sup>a</sup> 151	.0481	200	.2579
98	.0043	147	.0658	196	.3272	103	.0033	152	.0502	201	.2646
99	.0046	148	.0687	197	.3350	104	.0036	153	.0524	202	.2713
100	.0049	149	.0716	198	.3428	105	.0038	154	.0547	203	.2781
101	.0053	150	.0747	199	.3507	106	.0041	155	.0571	204	.2849
102	.0057	151	.0778	200	.3586	107	.0044	156	.0595	205	.2919
103	.0061	152	.0811	201	.3666	108	.0047	157	.0621	206	.2989
104	.0065	153	.0844	202	.3747	109	.0050	158	.0647	207	.3060
105	.0069	154	.0879	203	.3828	110	.0053	159	.0674	208	.3132
106	.0074	155	.0914	204	.3909	111	.0057	160	.0701	209	.3204
107	.0079	156	.0951	205	.3991	112	.0060	161	.0730	210	.3277
108	.0084	157	.0988	206	.4074	113	.0064	162	.0759	211	.3351
109	.0089	158	.1027	207	.4157	114	.0068	163	.0790	212	.3425
110	.0095	159	.1066	208	.4240	115	.0073	164	.0821	213	.3500
111	.0101	160	.1107	209	.4324	116	.0077	165	.0853	214	.3576
112	.0108	161	.1149	210	.4408	117	.0082	166	.0886	215	.3652
113	.0115	162	.1191	211	.4492	118	.0087	167	.0920	216	.3728
114	.0122	163	.1235	212	.4576	119	.0093	168	.0955	217	.3805
115	.0129	164	.1280	213	.4661	120	.0098	169	.0990	218	.3883
116	.0137	165	.1326	214	.4745	121	.0104	170	.1027	219	.3961
117	.0145	166	.1373	215	.4830	122	.0110	171	.1065	220	.4039
118	.0154	167	.1421	216	.4915	123	.0117	172	.1103	221	.4118
119	.0163	168	.1471	217	.5000	124	.0124	173	.1143	222	.4197
120	.0173	169	.1521			125	.0131	174	.1183	223	.4276

**TABLE K (continued)**

<i>n</i> = 29		<i>n</i> = 29		<i>n</i> = 30		<i>n</i> = 30		<i>n</i> = 30			
T	P	T	P	T	P	T	P	T	P		
121	.0183	170	.1572			126	.0139	175	.1225	224	.4356
122	.0193	171	.1625	55	.0001	127	.0147	176	.1267	225	.4436
123	.0204	172	.1679	66	.0002	128	.0155	177	.1311	226	.4516
124	.0216	173	.1733	71	.0003	129	.0164	178	.1355	227	.4596
125	.0228	174	.1789	75	.0004	130	.0173	179	.1400	228	.4677
126	.0240	175	.1846	78	.0005	131	.0182	180	.1447	229	.4758
127	.0253	176	.1904	80	.0006	132	.0192	181	.1494	230	.4838
128	.0267	177	.1963	82	.0007	133	.0202	182	.1543	231	.4919
129	.0281	178	.2023	84	.0008	134	.0213	183	.1592	232	.5000
130	.0296	179	.2085	85	.0009	135	.0225	184	.1642		
131	.0311	180	.2147	87	.0010	136	.0236	185	.1694		
132	.0328	181	.2210	88	.0011	137	.0249	186	.1746		
133	.0344	182	.2274	89	.0012	138	.0261	187	.1799		

**TABLE L Quantiles of the Mann-Whitney Test Statistic**

<i>n</i>	<i>p</i>	<i>m</i> = 2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
2	.001	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	.005	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	.01	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	2
	.025	0	0	0	0	0	0	1	1	1	1	2	2	2	2	2	3	3	3	3
	.05	0	0	0	1	1	1	2	2	2	2	3	3	4	4	4	4	5	5	5
	.10	0	1	1	2	2	2	3	3	4	4	5	5	5	6	6	7	7	8	8
3	.001	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
	.005	0	0	0	0	0	0	1	1	1	2	2	2	3	3	3	3	3	4	4
	.01	0	0	0	0	0	1	1	2	2	2	3	3	3	4	4	5	5	5	6
	.025	0	0	0	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9
	.05	0	1	1	2	3	3	4	5	5	6	6	7	8	8	9	10	10	11	12
	.10	1	2	2	3	4	5	6	6	7	8	9	10	11	11	12	13	14	15	16
4	.001	0	0	0	0	0	0	0	1	1	1	2	2	2	3	3	4	4	4	4
	.005	0	0	0	0	1	1	2	2	3	3	4	4	5	6	6	7	7	8	9
	.01	0	0	0	1	2	2	3	4	4	5	6	6	7	9	8	9	10	10	11
	.025	0	0	1	2	3	4	5	5	6	7	8	9	10	11	12	12	13	14	15
	.05	0	1	2	3	4	5	6	7	8	9	10	11	12	13	15	16	17	18	19
	.10	1	2	4	5	6	7	8	10	11	12	13	14	16	17	18	19	21	22	23
5	.001	0	0	0	0	0	1	2	2	3	3	4	4	5	6	6	7	8	8	
	.005	0	0	0	1	2	2	3	4	5	6	7	8	8	9	10	11	12	13	14
	.01	0	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
	.025	0	1	2	3	4	6	7	8	9	10	12	13	14	15	16	18	19	20	21
	.05	1	2	3	5	6	7	9	10	12	13	14	16	17	19	20	21	23	24	26
	.10	2	3	5	6	8	9	11	13	14	16	18	19	21	23	24	26	28	29	31



TABLE L (continued)

<i>n</i>	<i>p</i>	<i>m</i> = 2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
6	.001	0	0	0	0	0	0	2	3	4	5	5	6	7	8	9	10	11	12	13
	.005	0	0	1	2	3	4	5	6	7	8	10	11	12	13	14	16	17	18	19
	.01	0	0	2	3	4	5	7	8	9	10	12	13	14	16	17	19	20	21	23
	.025	0	2	3	4	6	7	9	11	12	14	15	17	18	20	22	23	25	26	28
	.05	1	3	4	6	8	9	11	13	15	17	18	20	22	24	26	27	29	31	33
	.10	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	35	37	39
7	.001	0	0	0	0	1	2	3	4	6	7	8	9	10	11	12	14	15	16	17
	.005	0	0	1	2	4	5	7	8	10	11	13	14	16	17	19	20	22	23	25
	.01	0	1	2	4	5	7	8	10	12	13	15	17	18	20	22	24	25	27	29
	.025	0	2	4	6	7	9	11	13	15	17	19	21	23	25	27	29	31	33	35
	.05	1	3	5	7	9	12	14	16	18	20	22	25	27	29	31	34	36	38	40
	.10	2	5	7	9	12	14	17	19	22	24	27	29	32	34	37	39	42	44	47
8	.001	0	0	0	1	2	3	5	6	7	9	10	12	13	15	16	18	19	21	22
	.005	0	0	2	3	5	7	8	10	12	14	16	18	19	21	23	25	27	29	31
	.01	0	1	3	5	7	8	10	12	14	16	18	21	23	25	27	29	31	33	35
	.025	1	3	5	7	9	11	14	16	18	20	23	25	27	30	32	35	37	39	42
	.05	2	4	6	9	11	14	16	19	21	24	27	29	32	34	37	40	42	45	48
	.10	3	6	8	11	14	17	20	23	25	28	31	34	37	40	43	46	49	52	55
9	.001	0	0	0	2	3	4	6	8	9	11	13	15	16	18	20	22	24	26	27
	.005	0	1	2	4	6	8	10	12	14	17	19	21	23	25	28	30	32	34	37
	.01	0	2	4	6	8	10	12	15	17	19	22	24	27	29	32	34	37	39	41
	.025	1	3	5	8	11	13	16	18	21	24	27	29	32	35	38	40	43	46	49
	.05	2	5	7	10	13	16	19	22	25	28	31	34	37	40	43	46	49	52	55
	.10	3	6	10	13	16	19	23	26	29	32	36	39	42	46	49	53	56	59	63
10	.001	0	0	1	2	4	6	7	9	11	13	15	18	20	22	24	26	28	30	33
	.005	0	1	3	5	7	10	12	14	17	19	22	25	27	30	32	35	38	40	43
	.01	0	2	4	7	9	12	14	17	20	23	25	28	31	34	37	39	42	45	48
	.025	1	4	6	9	12	15	18	21	24	27	30	34	37	40	43	46	49	53	46
	.05	2	5	8	12	15	18	21	25	28	32	35	38	42	45	49	52	56	59	63
	.10	4	7	11	14	18	22	25	29	33	37	40	44	48	52	55	59	63	67	71

**TABLE L (continued)**

<i>n</i>	<i>p</i>	<i>m</i> = 2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
11	.001	0	0	1	3	5	7	9	11	13	16	18	21	23	25	28	30	33	35	38
	.005	0	1	3	6	8	11	14	17	19	22	25	28	31	34	37	40	43	46	49
	.01	0	2	5	8	10	13	16	19	23	26	29	32	35	38	42	45	48	51	54
	.025	1	4	7	10	14	17	20	24	27	31	34	38	41	45	48	52	56	59	63
	.05	2	6	9	13	17	20	24	28	32	35	39	43	47	51	55	58	62	66	70
	.10	4	8	12	16	20	24	28	32	37	41	45	49	53	58	62	66	70	74	79
12	.001	0	0	1	3	5	8	10	13	15	18	21	24	26	29	32	35	38	41	43
	.005	0	2	4	7	10	13	16	19	22	25	28	32	35	38	42	45	48	52	55
	.01	0	3	6	9	12	15	18	22	25	29	32	36	39	43	47	50	54	57	61
	.025	2	5	8	12	15	19	23	27	30	34	38	42	46	50	54	58	62	66	70
	.05	3	6	10	14	18	22	27	31	35	39	43	48	52	56	61	65	69	73	78
	.10	5	9	13	18	22	27	31	36	40	45	50	54	59	64	68	73	78	82	87
13	.001	0	0	2	4	6	9	12	15	18	21	24	27	30	33	36	39	43	46	49
	.005	0	2	4	8	11	14	18	21	25	28	32	35	39	43	46	50	54	58	61
	.01	1	3	6	10	13	17	21	24	28	32	36	40	44	48	52	56	60	64	68
	.025	2	5	9	13	17	21	25	29	34	38	42	46	51	55	60	64	68	73	77
	.05	3	7	11	16	20	25	29	34	38	43	48	52	57	62	66	71	76	81	85
	.10	5	10	14	19	24	29	34	39	44	49	54	59	64	69	75	80	85	90	95
14	.001	0	0	2	4	7	10	13	16	20	23	26	30	33	37	40	44	47	51	55
	.005	0	2	5	8	12	16	19	23	27	31	35	39	43	47	51	55	59	64	68
	.01	1	3	7	11	14	18	23	27	31	35	39	44	48	52	57	61	66	70	74
	.025	2	6	10	14	18	23	27	32	37	41	46	51	56	60	65	70	75	79	84
	.05	4	8	12	17	22	27	32	37	42	47	52	57	62	67	72	78	83	88	93
	.10	5	11	16	21	26	32	37	42	48	53	59	64	70	75	81	86	92	98	103
15	.001	0	0	2	5	8	11	15	18	22	25	29	33	37	41	44	48	52	56	60
	.005	0	3	6	9	13	17	21	25	30	34	38	43	47	52	56	61	65	70	74
	.01	1	4	8	12	16	20	25	29	34	38	43	48	52	57	62	67	71	76	81
	.025	2	6	11	15	20	25	30	35	40	45	50	55	60	65	71	76	81	86	91
	.05	4	8	13	19	24	29	34	40	45	51	56	62	67	73	78	84	89	95	101
	.10	6	11	17	23	28	34	40	46	52	58	64	69	75	81	87	93	99	105	111

TABLE L (continued)

<i>n</i>	<i>p</i>	<i>m</i> = 2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
16	.001	0	0	3	6	9	12	16	20	24	28	32	36	40	44	49	53	57	61	66
	.005	0	3	6	10	14	19	23	28	32	37	42	46	51	56	61	66	71	75	80
	.01	1	4	8	13	17	22	27	32	37	42	47	52	57	62	67	72	77	83	88
	.025	2	7	12	16	22	27	32	38	43	48	54	60	65	71	76	82	87	93	99
	.05	4	9	15	20	26	31	37	43	49	55	61	66	72	78	84	90	96	102	108
	.10	6	12	18	24	30	37	43	49	55	62	68	75	81	87	94	100	107	113	120
17	.001	0	1	3	6	10	14	18	22	26	30	35	39	44	48	53	58	62	67	71
	.005	0	3	7	11	16	20	25	30	35	40	45	50	55	61	66	71	76	82	87
	.01	1	5	9	14	19	24	29	34	39	45	50	56	61	67	72	78	83	89	94
	.025	3	7	12	18	23	29	35	40	46	52	58	64	70	76	82	88	94	100	106
	.05	4	10	16	21	27	34	40	46	52	58	65	71	78	84	90	97	103	110	116
	.10	7	13	19	26	32	39	46	53	59	66	73	80	86	93	100	107	114	121	128
18	.001	0	1	4	7	11	15	19	24	28	33	38	43	47	52	57	62	67	72	77
	.005	0	3	7	12	17	22	27	32	38	43	48	54	59	65	71	76	82	88	93
	.01	1	5	10	15	20	25	31	37	42	48	54	60	66	71	77	83	89	95	101
	.025	3	8	13	19	25	31	37	43	49	56	62	68	75	81	87	94	100	107	113
	.05	5	10	17	23	29	36	42	49	56	62	69	76	83	89	96	103	110	117	124
	.10	7	14	21	28	35	42	49	56	63	70	78	85	92	99	107	114	121	129	136
19	.001	0	1	4	8	12	16	21	26	30	35	41	46	51	56	61	67	72	78	83
	.005	1	4	8	13	18	23	29	34	40	46	52	58	64	70	75	82	88	94	100
	.01	2	5	10	16	21	27	33	39	45	51	57	64	70	76	83	89	95	102	108
	.025	3	8	14	20	26	33	39	46	53	59	66	73	79	86	93	100	107	114	120
	.05	5	11	18	24	31	38	45	52	59	66	73	81	88	95	102	110	117	124	131
	.10	8	15	22	29	37	44	52	59	67	74	82	90	98	105	113	121	129	136	144
20	.001	0	1	4	8	13	17	22	27	33	38	43	49	55	60	66	71	77	83	89
	.005	1	4	9	14	19	25	31	37	43	49	55	61	68	74	80	87	93	100	106
	.01	2	6	11	17	23	29	35	41	48	54	61	68	74	81	88	94	101	108	115
	.025	3	9	15	21	28	35	42	49	56	63	70	77	84	91	99	106	113	120	128
	.05	5	12	19	26	33	40	48	55	63	70	78	85	93	101	108	116	124	131	139
	.10	8	16	23	31	39	47	55	63	71	79	87	95	103	111	120	128	136	144	152

**TABLE M Quantiles of the Kolmogorov Test Statistic**

<b>One-Sided Test</b>					
<b><math>p = .90</math></b>		<b>.95</b>	<b>.975</b>	<b>.99</b>	<b>.995</b>
<b>Two-Sided Test</b>					
<b><math>p = .80</math></b>		<b>.90</b>	<b>.95</b>	<b>.98</b>	<b>.99</b>
$n = 1$	.900	.950	.975	.990	.995
2	.684	.776	.842	.900	.929
3	.565	.636	.708	.785	.829
4	.493	.565	.624	.689	.734
5	.447	.509	.563	.627	.669
6	.410	.468	.519	.577	.617
7	.381	.436	.483	.538	.576
8	.358	.410	.454	.507	.542
9	.339	.387	.430	.480	.513
10	.323	.369	.409	.457	.489
11	.308	.352	.391	.437	.468
12	.296	.338	.375	.419	.449
13	.285	.325	.361	.404	.432
14	.275	.314	.349	.390	.418
15	.266	.304	.338	.377	.404
16	.258	.295	.327	.366	.392
17	.250	.286	.318	.355	.381
18	.244	.279	.309	.346	.371
19	.237	.271	.301	.337	.361
20	.232	.265	.294	.329	.352
21	.226	.259	.287	.321	.344
22	.221	.253	.281	.314	.337
23	.216	.247	.275	.307	.330
24	.212	.242	.269	.301	.323
25	.208	.238	.264	.295	.317
26	.204	.233	.259	.290	.311
27	.200	.229	.254	.284	.305
28	.197	.225	.250	.279	.300
29	.193	.221	.246	.275	.295
30	.190	.218	.242	.270	.290
31	.187	.214	.238	.266	.285
32	.184	.211	.234	.262	.281
33	.182	.208	.231	.258	.277
34	.179	.205	.227	.254	.273
35	.177	.202	.224	.251	.269
36	.174	.199	.221	.247	.265
37	.172	.196	.218	.244	.262
38	.170	.194	.215	.241	.258
39	.168	.191	.213	.238	.255
40	.165	.189	.210	.235	.252
Approximation for					
$n > 40$	$\frac{1.07}{\sqrt{n}}$	$\frac{1.22}{\sqrt{n}}$	$\frac{1.36}{\sqrt{n}}$	$\frac{1.52}{\sqrt{n}}$	$\frac{1.63}{\sqrt{n}}$



**TABLE N Critical Values of the Kruskal–Wallis Test Statistic**

Sample Sizes			Critical Value	$\alpha$	Sample Sizes			Critical Value	$\alpha$
$n_1$	$n_2$	$n_3$			$n_1$	$n_2$	$n_3$		
2	1	1	2.7000	.500	4	3	2	6.4444	.008
2	2	1	3.6000	.200				6.3000	.011
2	2	2	4.5714	.067				5.4444	.046
			3.7143	.200				5.4000	.051
3	1	1	3.2000	.300				4.5111	.098
3	2	1	4.2857	.100				4.4444	.102
			3.8571	.133	4	3	3	6.7455	.010
3	2	2	5.3572	.029				6.7091	.013
			4.7143	.048				5.7909	.046
			4.5000	.067				5.7273	.050
			4.4643	.105				4.7091	.092
3	3	1	5.1429	.043				4.7000	.101
			4.5714	.100	4	4	1	6.6667	.010
			4.0000	.129				6.1667	.022
3	3	2	6.2500	.011				4.9667	.048
			5.3611	.032				4.8667	.054
			5.1389	.061				4.1667	.082
			4.5556	.100				4.0667	.102
			4.2500	.121	4	4	2	7.0364	.006
3	3	3	7.2000	.004				6.8727	.011
			6.4889	.011				5.4545	.046
			5.6889	.029				5.2364	.052
			5.6000	.050				4.5545	.098
			5.0667	.086				4.4455	.103
			4.6222	.100	4	4	3	7.1439	.010
4	1	1	3.5714	.200				7.1364	.011
4	2	1	4.8214	.057				5.5985	.049
			4.5000	.076				5.5758	.051
			4.0179	.114				4.5455	.099
4	2	2	6.0000	.014				4.4773	.102
			5.3333	.033	4	4	4	7.6538	.008
			5.1250	.052				7.5385	.011
			4.4583	.100				5.6923	.049
			4.1667	.105				5.6538	.054
4	3	1	5.8333	.021				4.6539	.097
			5.2083	.050				4.5001	.104
			5.0000	.057	5	1	1	3.8571	.143
			4.0556	.093	5	2	1	5.2500	.036
			3.8889	.129				5.0000	.048
								4.4500	.071
								4.2000	.095
								4.0500	.119

**TABLE N (continued)**

Sample Sizes			Critical Value	$\alpha$	Sample sizes			Critical value	$\alpha$
$n_1$	$n_2$	$n_3$			$n_1$	$n_2$	$n_3$		
5	2	2	6.5333	.008	5	4	4	4.5487	.099
			6.1333	.013				4.5231	.103
			5.1600	.034				7.7604	.009
			5.0400	.056				7.7440	.011
			4.3733	.090				5.6571	.049
5	3	1	4.2933	.122	5	5	1	5.6176	.050
			6.4000	.012				4.6187	.100
			4.9600	.048				4.5527	.102
			4.8711	.052				7.3091	.009
			4.0178	.095				6.8364	.011
5	3	2	3.8400	.123	5	5	2	5.1273	.046
			6.9091	.009				4.9091	.053
			6.8218	.010				4.1091	.086
			5.2509	.049				4.0364	.105
			5.1055	.052				7.3385	.010
5	3	3	4.6509	.091	5	5	3	7.2692	.010
			4.4945	.101				5.3385	.047
			7.0788	.009				5.2462	.051
			6.9818	.011				4.6231	.097
			5.6485	.049				4.5077	.100
5	4	1	5.5152	.051	5	5	4	7.5780	.010
			4.5333	.097				7.5429	.010
			4.4121	.109				5.7055	.046
			6.9545	.008				5.6264	.051
			6.8400	.011				4.5451	.100
5	4	2	4.9855	.044	5	5	5	4.5363	.102
			4.8600	.056				7.8229	.010
			3.9873	.098				7.7914	.010
			3.9600	.102				5.6657	.049
			7.2045	.009				5.6429	.050
5	4	3	7.1182	.010	5	5	5	4.5229	.099
			5.2727	.049				4.5200	.101
			5.2682	.050				8.0000	.009
			4.5409	.098				7.9800	.010
			4.5182	.101				5.7800	.049
5	4	3	7.4449	.010	5	4	3	5.6600	.051
			7.3949	.011				4.5600	.100
			5.6564	.049				4.5000	.102
			5.6308	.050					

**TABLE Oa Exact Distribution of  $\chi_r^2$  for Tables with from 2 to 9 Sets of Three Ranks ( $k = 3$ ;  $n = 2, 3, 4, 5, 6, 7, 8, 9$ ;  $P$  is the Probability of Obtaining a Value of  $\chi_r^2$  as Great as or Greater Than the Corresponding Value of  $\chi_r^2$ )**

$n = 2$		$n = 3$		$n = 4$		$n = 5$	
$\chi_r^2$	$P$	$\chi_r^2$	$P$	$\chi_r^2$	$P$	$\chi_r^2$	$P$
0	1.000	.000	1.000	.0	1.000	.0	1.000
1	.833	.667	.944	.5	.931	.4	.954
3	.500	2.000	.528	1.5	.653	1.2	.691
4	.167	2.667	.361	2.0	.431	1.6	.522
		4.667	1.94	3.5	.273	2.8	.367
		6.000	.028	4.5	.125	3.6	.182
				6.0	.069	4.8	.124
				6.5	.042	5.2	.093
				8.0	.0046	6.4	.039
						7.6	.024
						8.4	.0085
						10.0	.00077
$n = 6$		$n = 7$		$n = 8$		$n = 9$	
.00	1.000	.000	1.000	.00	1.000	.000	1.000
0.33	.956	.286	.964	.25	.967	.222	.971
1.00	.740	.857	.768	.75	.794	.667	.814
1.33	.570	1.143	.620	1.00	.654	.889	.865
2.33	.430	2.000	.486	1.75	.531	1.556	.569
3.00	.252	2.571	.305	2.25	.355	2.000	.398
4.00	.184	3.429	.237	3.00	.285	2.667	.328
4.33	.142	3.714	.192	3.25	.236	2.889	.278
5.33	.072	4.571	.112	4.00	.149	3.556	.187
6.33	.052	5.429	.085	4.75	.120	4.222	.154
7.00	.029	6.000	.052	5.25	.079	4.667	.107
8.33	.012	7.143	.027	6.25	.047	5.556	.069
9.00	.0081	7.714	.021	6.75	.038	6.000	.057
9.33	.0055	8.000	.016	7.00	.030	6.222	.048
10.33	.0017	8.857	.0084	7.75	.018	6.889	.031
12.00	.00013	10.286	.0036	9.00	.0099	8.000	.019
		10.571	.0027	9.25	.0080	8.222	.016
		11.143	.0012	9.75	.0048	8.667	.010
		12.286	.00032	10.75	.0024	9.556	.0060
		14.000	.000021	12.00	.0011	10.667	.0035
				12.25	.00086	10.889	.0029
				13.00	.00026	11.556	.0013
				14.25	.000061	12.667	.00066
				16.00	.0000036	13.556	.00035
						14.000	.00020
						14.222	.000097
						14.889	.000054
						16.222	.000011
						18.000	.0000006

**TABLE Ob Exact Distribution of  $\chi_r^2$  for Tables with from 2 to 9 Sets of Three Ranks ( $k = 4$ ;  $n = 2, 3, 4$ ;  $P$  is the Probability of Obtaining a Value of  $\chi_r^2$  as Great as or Greater Than the Corresponding Value of  $\chi_r^2$ )**

$n = 2$		$n = 3$		$n = 4$			
$\chi_r^2$	$P$	$\chi_r^2$	$P$	$\chi_r^2$	$P$	$\chi_r^2$	$P$
.0	1.000	.2	1.000	.0	1.000	5.7	.141
.6	.958	.6	.958	.3	.992	6.0	.105
1.2	.834	1.0	.910	.6	.928	6.3	.094
1.8	.792	1.8	.727	.9	.900	6.6	.077
2.4	.625	2.2	.608	1.2	.800	6.9	.068
3.0	.542	2.6	.524	1.5	.754	7.2	.054
3.6	.458	3.4	.446	1.8	.677	7.5	.052
4.2	.375	3.8	.342	2.1	.649	7.8	.036
4.8	.208	4.2	.300	2.4	.524	8.1	.033
5.4	.167	5.0	.207	2.7	.508	8.4	.019
6.0	.042	5.4	.175	3.0	.432	8.7	.014
		5.8	.148	3.3	.389	9.3	.012
		6.6	.075	3.6	.355	9.6	.0069
		7.0	.054	3.9	.324	9.9	.0062
		7.4	.033	4.5	.242	10.2	.0027
		8.2	.017	4.8	.200	10.8	.0016
		9.0	.0017	5.1	.190	11.1	.00094
				5.4	.158	12.0	.000072



**TABLE P Critical Values of the Spearman Test Statistic. Approximate Upper-Tail Critical Values  $r_s^*$ , Where  $P(r > r_s^*) \leq \alpha$ ,  $n = 4(1)30$  Significance Level,  $\alpha$**

<i>n</i>	<b>.001</b>	<b>.005</b>	<b>.010</b>	<b>.025</b>	<b>.050</b>	<b>.100</b>
4	—	—	—	—	.8000	.8000
5	—	—	.9000	.9000	.8000	.7000
6	—	.9429	.8857	.8286	.7714	.6000
7	.9643	.8929	.8571	.7450	.6786	.5357
8	.9286	.8571	.8095	.7143	.6190	.5000
9	.9000	.8167	.7667	.6833	.5833	.4667
10	.8667	.7818	.7333	.6364	.5515	.4424
11	.8364	.7545	.7000	.6091	.5273	.4182
12	.8182	.7273	.6713	.5804	.4965	.3986
13	.7912	.6978	.6429	.5549	.4780	.3791
14	.7670	.6747	.6220	.5341	.4593	.3626
15	.7464	.6536	.6000	.5179	.4429	.3500
16	.7265	.6324	.5824	.5000	.4265	.3382
17	.7083	.6152	.5637	.4853	.4118	.3260
18	.6904	.5975	.5480	.4716	.3994	.3148
19	.6737	.5825	.5333	.4579	.3895	.3070
20	.6586	.5684	.5203	.4451	.3789	.2977
21	.6455	.5545	.5078	.4351	.3688	.2909
22	.6318	.5426	.4963	.4241	.3597	.2829
23	.6186	.5306	.4852	.4150	.3518	.2767
24	.6070	.5200	.4748	.4061	.3435	.2704
25	.5962	.5100	.4654	.3977	.3362	.2646
26	.5856	.5002	.4564	.3894	.3299	.2588
27	.5757	.4915	.4481	.3822	.3236	.2540
28	.5660	.4828	.4401	.3749	.3175	.2490
29	.5567	.4744	.4320	.3685	.3113	.2443
30	.5479	.4665	.4251	.3620	.3059	.2400

*Note:* The corresponding lower-tail critical value for  $r_s$  is  $-r_s^*$ .

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