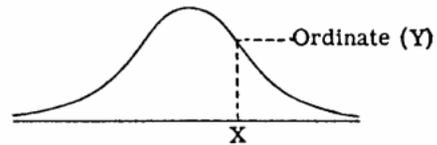
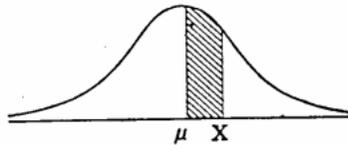


# Appendix A

TABLE OF AREAS AND ORDINATES OF THE NORMAL CURVE\*

Table of Areas  
Column (2) Shows

Table of Ordinates  
Column (3) Shows



$\frac{X-\mu}{\sigma}$	Area Under the Curve between $\mu$ and X	Ordinate (Y) of the curve at X	$\frac{X-\mu}{\sigma}$	Area Under the Curve between $\mu$ and X	Ordinate (Y) of the curve at X
(1)	(2)	(3)	(1)	(2)	(3)
.00	.00000	.39894	.20	.07926	.39104
.01	.00399	.39892	.21	.08317	.39024
.02	.00798	.39886	.22	.08706	.38940
.03	.01197	.39876	.23	.09095	.38853
.04	.01595	.39862	.24	.09483	.38762
.05	.01994	.39844	.25	.09871	.38667
.06	.02392	.39822	.26	.10257	.38568
.07	.02790	.39797	.27	.10642	.38466
.08	.03188	.39767	.28	.11026	.38361
.09	.03586	.39733	.29	.11409	.38251
.10	.03983	.39695	.30	.11791	.38139
.11	.04380	.39654	.31	.12172	.38023
.12	.04776	.39608	.32	.12552	.37903
.13	.05172	.39559	.33	.12930	.37780
.14	.05567	.39505	.34	.13307	.37654
.15	.05962	.39448	.35	.13683	.37524
.16	.06356	.39387	.36	.14058	.37391
.17	.06749	.39322	.37	.14431	.37255
.18	.07142	.39253	.38	.14803	.37115
.19	.07535	.39181	.39	.15173	.36973

\*From: Mathematics of Statistics, J. F. Kenney and E. S. Keeping, Copyright 1954, D. Van Nostrand Company, Inc., Princeton, N. J.

LA ESTADÍSTICA APLICADA AL ANÁLISIS ECONÓMICO

$\frac{X-\mu}{\sigma}$	Area Under the Curve between $\mu$ and X	Ordinate (Y) of the curve at X	$\frac{X-\mu}{\sigma}$	Area Under the Curve between $\mu$ and X	Ordinate (Y) of the curve at X
(1)	(2)	(3)	(1)	(2)	(3)
.40	.15542	.36827	.90	.31594	.26609
.41	.15910	.36678	.91	.31859	.26369
.42	.16276	.36526	.92	.32121	.26129
.43	.16640	.36371	.93	.32381	.25888
.44	.17003	.36213	.94	.32639	.25647
.45	.17364	.36053	.95	.32894	.25406
.46	.17724	.35889	.96	.33147	.25164
.47	.18082	.35723	.97	.33398	.24923
.48	.18439	.35553	.98	.33646	.24681
.49	.18793	.35381	.99	.33891	.24439
.50	.19146	.35207	1.00	.34134	.24197
.51	.19497	.35029	1.01	.34375	.23955
.52	.19847	.34849	1.02	.34614	.23713
.53	.20194	.34667	1.03	.34850	.23471
.54	.20540	.34482	1.04	.35083	.23230
.55	.20884	.34294	1.05	.35314	.22988
.56	.21226	.34105	1.06	.35543	.22747
.57	.21566	.33912	1.07	.35769	.22506
.58	.21904	.33718	1.08	.35993	.22265
.59	.22240	.33521	1.09	.36214	.22025
.60	.22575	.33322	1.10	.36433	.21785
.61	.22907	.33121	1.11	.36650	.21546
.62	.23237	.32918	1.12	.36864	.21307
.63	.23565	.32713	1.13	.37076	.21069
.64	.23891	.32506	1.14	.37286	.20831
.65	.24215	.32297	1.15	.37493	.20594
.66	.24537	.32086	1.16	.37698	.20357
.67	.24857	.31874	1.17	.37900	.20121
.68	.25175	.31659	1.18	.38100	.19886
.69	.25490	.31443	1.19	.38298	.19652
.70	.25804	.31225	1.20	.38493	.19419
.71	.26115	.31006	1.21	.38686	.19186
.72	.26424	.30785	1.22	.38877	.18954
.73	.26730	.30563	1.23	.39065	.18724
.74	.27035	.30339	1.24	.39251	.18494
.75	.27337	.30114	1.25	.39435	.18265
.76	.27637	.29887	1.26	.39617	.18037
.77	.27935	.29659	1.27	.39796	.17810
.78	.28230	.29431	1.28	.39973	.17585
.79	.28524	.29200	1.29	.40147	.17360
.80	.28814	.28969	1.30	.40320	.17137
.81	.29103	.28737	1.31	.40490	.16915
.82	.29389	.28504	1.32	.40658	.16694
.83	.29673	.28269	1.33	.40824	.16474
.84	.29955	.28034	1.34	.40988	.16256
.85	.30234	.27798	1.35	.41149	.16038
.86	.30511	.27562	1.36	.41309	.15822
.87	.30785	.27324	1.37	.41466	.15608
.88	.31057	.27086	1.38	.41621	.15395
.89	.31327	.26848	1.39	.41774	.15183

LA ESTADÍSTICA APLICADA AL ANÁLISIS ECONÓMICO

$\frac{X-\mu}{\sigma}$	Area Under the Curve between $\mu$ and X	Ordinate (Y) of the curve at X	$\frac{X-\mu}{\sigma}$	Area Under the Curve between $\mu$ and X	Ordinate (Y) of the curve at X
(1)	(2)	(3)	(1)	(2)	(3)
1.40	.41924	.14973	1.90	.47128	.06562
1.41	.42073	.14764	1.91	.47193	.06438
1.42	.42220	.14556	1.92	.47257	.06316
1.43	.42364	.14350	1.93	.47320	.06195
1.44	.42507	.14146	1.94	.47381	.06077
1.45	.42647	.13943	1.95	.47441	.05959
1.46	.42786	.13742	1.96	.47500	.05844
1.47	.42922	.13542	1.97	.47558	.05730
1.48	.43056	.13344	1.98	.47615	.05618
1.49	.43189	.13147	1.99	.47670	.05508
1.50	.43319	.12952	2.00	.47725	.05399
1.51	.43448	.12758	2.01	.47778	.05292
1.52	.43574	.12566	2.02	.47831	.05186
1.53	.43699	.12376	2.03	.47882	.05082
1.54	.43822	.12188	2.04	.47932	.04980
1.55	.43943	.12001	2.05	.47982	.04879
1.56	.44062	.11816	2.06	.48030	.04780
1.57	.44179	.11632	2.07	.48077	.04682
1.58	.44295	.11450	2.08	.48124	.04586
1.59	.44408	.11270	2.09	.48169	.04491
1.60	.44520	.11092	2.10	.48214	.04398
1.61	.44630	.10915	2.11	.48257	.04307
1.62	.44738	.10741	2.12	.48300	.04217
1.63	.44845	.10567	2.13	.48341	.04128
1.64	.44950	.10396	2.14	.48382	.04041
1.65	.45053	.10226	2.15	.48422	.03955
1.66	.45154	.10059	2.16	.48461	.03871
1.67	.45254	.09893	2.17	.48500	.03788
1.68	.45352	.09728	2.18	.48537	.03706
1.69	.45449	.09566	2.19	.48574	.03626
1.70	.45543	.09405	2.20	.48610	.03547
1.71	.45637	.09246	2.21	.48645	.03470
1.72	.45728	.09089	2.22	.48679	.03394
1.73	.45818	.08933	2.23	.48713	.03319
1.74	.45907	.08780	2.24	.48745	.03246
1.75	.45994	.08628	2.25	.48778	.03174
1.76	.46080	.08478	2.26	.48809	.03103
1.77	.46164	.08329	2.27	.48840	.03034
1.78	.46246	.08183	2.28	.48870	.02965
1.79	.46327	.08038	2.29	.48899	.02898
1.80	.46407	.07895	2.30	.48928	.02833
1.81	.46485	.07754	2.31	.48956	.02768
1.82	.46562	.07614	2.32	.48983	.02705
1.83	.46638	.07477	2.33	.49010	.02643
1.84	.46712	.07341	2.34	.49036	.02582
1.85	.46784	.07206	2.35	.49064	.02522
1.86	.46856	.07074	2.36	.49086	.02463
1.87	.46926	.06943	2.37	.49111	.02406
1.88	.46995	.06814	2.38	.49134	.02349
1.89	.47062	.06687	2.39	.49158	.02294

LA ESTADÍSTICA APLICADA AL ANÁLISIS ECONÓMICO

$\frac{X-\mu}{\sigma}$	Area Under the Curve between $\mu$ and X	Ordinate (Y) of the curve at X	$\frac{X-\mu}{\sigma}$	Area Under the Curve between $\mu$ and X	Ordinate (Y) of the curve at X
(1)	(2)	(3)	(1)	(2)	(3)
2.40	.49180	.02239	2.90	.49813	.00595
2.41	.49202	.02186	2.91	.49819	.00578
2.42	.49224	.02134	2.92	.49825	.00562
2.43	.49245	.02083	2.93	.49831	.00545
2.44	.49266	.02033	2.94	.49836	.00530
2.45	.49286	.01984	2.95	.49841	.00514
2.46	.49305	.01936	2.96	.49846	.00499
2.47	.49324	.01889	2.97	.49851	.00485
2.48	.49343	.01842	2.98	.49856	.00471
2.49	.49361	.01797	2.99	.49861	.00457
2.50	.49379	.01753	3.00	.49865	.00443
2.51	.49396	.01709	3.01	.49869	.00430
2.52	.49413	.01667	3.02	.49874	.00417
2.53	.49430	.01625	3.03	.49878	.00405
2.54	.49446	.01585	3.04	.49882	.00393
2.55	.49461	.01545	3.05	.49886	.00381
2.56	.49477	.01506	3.06	.49889	.00370
2.57	.49492	.01468	3.07	.49893	.00358
2.58	.49506	.01431	3.08	.49897	.00348
2.59	.49520	.01394	3.09	.49900	.00337
2.60	.49534	.01358	3.10	.49903	.00327
2.61	.49547	.01323	3.11	.49906	.00317
2.62	.49560	.01289	3.12	.49910	.00307
2.63	.49573	.01256	3.13	.49913	.00298
2.64	.49585	.01223	3.14	.49916	.00288
2.65	.49598	.01191	3.15	.49918	.00279
2.66	.49609	.01160	3.16	.49921	.00271
2.67	.49621	.01130	3.17	.49924	.00262
2.68	.49632	.01100	3.18	.49926	.00254
2.69	.49643	.01071	3.19	.49929	.00246
2.70	.49653	.01042	3.20	.49931	.00238
2.71	.49664	.01014	3.21	.49934	.00231
2.72	.49674	.00987	3.22	.49936	.00224
2.73	.49683	.00961	3.23	.49938	.00216
2.74	.49693	.00935	3.24	.49940	.00210
2.75	.49702	.00909	3.25	.49942	.00203
2.76	.49711	.00885	3.26	.49944	.00196
2.77	.49720	.00861	3.27	.49946	.00190
2.78	.49728	.00837	3.28	.49948	.00184
2.79	.49736	.00814	3.29	.49950	.00178
2.80	.49744	.00792	3.30	.49952	.00172
2.81	.49752	.00770	3.31	.49953	.00167
2.82	.49760	.00748	3.32	.49955	.00161
2.83	.49767	.00727	3.33	.49957	.00156
2.84	.49774	.00707	3.34	.49958	.00151
2.85	.49781	.00687	3.35	.49960	.00146
2.86	.49788	.00668	3.36	.49961	.00141
2.87	.49795	.00649	3.37	.49962	.00136
2.88	.49801	.00631	3.38	.49964	.00132
2.89	.49807	.00613	3.39	.49965	.00127

THE NORMAL CURVE

$\frac{X-\mu}{\sigma}$	Area Under the Curve between $\mu$ and X	Ordinate (Y) of the curve at X	$\frac{X-\mu}{\sigma}$	Area Under the Curve between $\mu$ and X	Ordinate (Y) of the curve at X
(1)	(2)	(3)	(1)	(2)	(3)
3.40	.49966	.00123	3.70	.49989	.00042
3.41	.49968	.00119	3.71	.49990	.00041
3.42	.49969	.00115	3.72	.49990	.00039
3.43	.49970	.00111	3.73	.49990	.00038
3.44	.49971	.00107	3.74	.49991	.00037
3.45	.49972	.00104	3.75	.49991	.00035
3.46	.49973	.00100	3.76	.49992	.00034
3.47	.49974	.00097	3.77	.49992	.00033
3.48	.49975	.00094	3.78	.49992	.00031
3.49	.49976	.00090	3.79	.49992	.00030
3.50	.49977	.00087	3.80	.49993	.00029
3.51	.49978	.00084	3.81	.49993	.00028
3.52	.49978	.00081	3.82	.49993	.00027
3.53	.49979	.00079	3.83	.49994	.00026
3.54	.49980	.00076	3.84	.49994	.00025
3.55	.49981	.00073	3.85	.49994	.00024
3.56	.49981	.00071	3.86	.49994	.00023
3.57	.49982	.00068	3.87	.49995	.00022
3.58	.49983	.00066	3.88	.49995	.00021
3.59	.49983	.00063	3.89	.49995	.00021
3.60	.49984	.00061	3.90	.49995	.00020
3.61	.49985	.00059	3.91	.49995	.00019
3.62	.49985	.00057	3.92	.49996	.00018
3.63	.49986	.00055	3.93	.49996	.00018
3.64	.49986	.00053	3.94	.49996	.00017
3.65	.49987	.00051	3.95	.49996	.00016
3.66	.49987	.00049	3.96	.49996	.00016
3.67	.49988	.00047	3.97	.49996	.00015
3.68	.49988	.00046	3.98	.49997	.00014
3.69	.49989	.00044	3.99	.49997	.00014

# Appendix B

TABLE OF  
COEFFICIENTS OF THE BINOMIAL DISTRIBUTION

Coefficients of terms of  $(q+p)^n$

n	Coefficient of Term in Which Exponent of p is										
	0	1	2	3	4	5	6	7	8	9	10
0	1										
1	1	1									
2	1	2	1								
3	1	3	3	1							
4	1	4	6	4	1						
5	1	5	10	10	5	1					
6	1	6	15	20	15	6	1				
7	1	7	21	35	35	21	7	1			
8	1	8	28	56	70	56	28	8	1		
9	1	9	36	84	126	126	84	36	9	1	
10	1	10	45	120	210	252	210	120	45	10	1
11	1	11	55	165	330	462	462	330	165	55	11
12	1	12	66	220	495	792	924	792	495	220	66
13	1	13	78	286	715	1287	1716	1716	1287	715	286
14	1	14	91	364	1001	2002	3003	3432	3003	2002	1001
15	1	15	105	455	1365	3003	5005	6435	6435	5005	3003
16	1	16	120	560	1820	4368	8008	11440	12870	11440	8008
17	1	17	136	680	2380	6188	12376	19448	24310	24310	19448
18	1	18	153	816	3060	8568	18564	31824	43758	48620	43758
19	1	19	171	969	3876	11628	27132	50388	75582	92378	92378
20	1	20	190	1140	4845	15504	38760	77520	125970	167960	184756

# Appendix C

TABLE OF THE BINOMIAL DISTRIBUTION FUNCTION\*

$$P(X) = \frac{n!}{X!(n-X)!} p^X q^{n-X}$$

n	X	.05	.10	.15	.20	.25	.30	.35	.40	.45	.50
1	0	.9500	.9000	.8500	.8000	.7500	.7000	.6500	.6000	.5500	.5000
	1	.0500	.1000	.1500	.2000	.2500	.3000	.3500	.4000	.4500	.5000
2	0	.9025	.8100	.7225	.6400	.5625	.4900	.4225	.3600	.3025	.2500
	1	.0950	.1800	.2550	.3200	.3750	.4200	.4550	.4800	.4950	.5000
	2	.0025	.0100	.0225	.0400	.0625	.0900	.1225	.1600	.2025	.2500
3	0	.8574	.7290	.6141	.5120	.4219	.3430	.2746	.2160	.1664	.1250
	1	.1354	.2430	.3251	.3840	.4219	.4410	.4436	.4320	.4084	.3750
	2	.0071	.0270	.0574	.0960	.1406	.1890	.2389	.2880	.3341	.3750
	3	.0001	.0010	.0034	.0080	.0156	.0270	.0429	.0640	.0911	.1250
4	0	.8145	.6561	.5220	.4096	.3164	.2401	.1785	.1296	.0915	.0625
	1	.1715	.2916	.3685	.4096	.4219	.4116	.3845	.3456	.2995	.2500
	2	.0135	.0486	.0975	.1536	.2109	.2646	.3105	.3456	.3675	.3750
	3	.0005	.0036	.0115	.0256	.0469	.0756	.1115	.1536	.2005	.2500
	4	.0000	.0001	.0005	.0016	.0039	.0081	.0150	.0256	.0410	.0625
5	0	.7738	.5905	.4437	.3277	.2373	.1681	.1160	.0778	.0503	.0312
	1	.2036	.3280	.3915	.4096	.3955	.3602	.3124	.2592	.2059	.1562
	2	.0214	.0729	.1382	.2048	.2637	.3087	.3364	.3456	.3369	.3125
	3	.0011	.0081	.0244	.0512	.0879	.1323	.1811	.2304	.2757	.3125
	4	.0000	.0004	.0022	.0064	.0146	.0284	.0488	.0768	.1128	.1562
	5	.0000	.0000	.0001	.0003	.0010	.0024	.0053	.0102	.0185	.0312
6	0	.7351	.5314	.3771	.2621	.1780	.1176	.0754	.0467	.0277	.0156
	1	.2321	.3543	.3993	.3932	.3560	.3025	.2437	.1866	.1359	.0936
	2	.0305	.0984	.1762	.2458	.2966	.3241	.3280	.3110	.2780	.2344
	3	.0021	.0146	.0415	.0819	.1318	.1852	.2355	.2765	.3032	.3125
	4	.0001	.0012	.0055	.0154	.0330	.0595	.0951	.1382	.1861	.2344
	5	.0000	.0001	.0004	.0015	.0044	.0102	.0205	.0369	.0609	.0936
	6	.0000	.0000	.0000	.0001	.0002	.0007	.0018	.0041	.0083	.0156

\*From Handbook of Probability and Statistics, by R. S. Burlington and D. C. May, Jr. Copyright 1953. McGraw-Hill Book Co., Inc. Used by permission.

Linear interpolation with respect to p will generally not be accurate to more than two decimal places, and sometimes less.

APPENDIX C

n	X	P									
		.05	.10	.15	.20	.25	.30	.35	.40	.45	.50
7	0	.6983	.4783	.3206	.2097	.1335	.0824	.0490	.0280	.0152	.0078
	1	.2573	.3720	.3960	.3670	.3115	.2471	.1848	.1306	.0872	.0547
	2	.0406	.1240	.2097	.2753	.3115	.3177	.2985	.2613	.2140	.1641
	3	.0036	.0230	.0617	.1147	.1730	.2269	.2679	.2903	.2918	.2734
	4	.0002	.0026	.0109	.0287	.0577	.0972	.1442	.1935	.2388	.2734
	5	.0000	.0002	.0012	.0043	.0115	.0250	.0466	.0774	.1172	.1641
	6	.0000	.0000	.0001	.0004	.0013	.0036	.0084	.0172	.0320	.0547
	7	.0000	.0000	.0000	.0000	.0001	.0002	.0006	.0016	.0037	.0078
8	0	.6634	.4305	.2725	.1678	.1002	.0576	.0319	.0168	.0084	.0039
	1	.2793	.3826	.3847	.3355	.2670	.1977	.1373	.0896	.0548	.0312
	2	.0515	.1488	.2376	.2936	.3115	.2065	.2587	.2090	.1569	.1094
	3	.0054	.0331	.0839	.1468	.2076	.2541	.2786	.2787	.2568	.2188
	4	.0004	.0046	.0185	.0459	.0865	.1361	.1875	.2322	.2627	.2734
	5	.0000	.0004	.0026	.0092	.0231	.0467	.0808	.1239	.1719	.2188
	6	.0000	.0000	.0002	.0011	.0038	.0100	.0217	.0413	.0403	.1094
	7	.0000	.0000	.0000	.0001	.0004	.0012	.0033	.0079	.0164	.0312
	8	.0000	.0000	.0000	.0000	.0000	.0001	.0002	.0007	.0017	.0039
9	0	.6302	.3874	.2316	.1342	.0751	.0404	.0207	.0101	.0046	.0020
	1	.2985	.3874	.3679	.3020	.2253	.1556	.1004	.0605	.0339	.0176
	2	.0629	.1722	.2597	.3020	.3003	.2668	.2162	.1612	.1110	.0703
	3	.0077	.0446	.1069	.1762	.2336	.2668	.2716	.2508	.2119	.1641
	4	.0006	.0074	.0283	.0661	.1168	.1715	.2194	.2508	.2600	.2461
	5	.0000	.0008	.0050	.0165	.0389	.0735	.1181	.1672	.2128	.2461
	6	.0000	.0001	.0006	.0028	.0087	.0210	.0424	.0743	.1160	.1641
	7	.0000	.0000	.0000	.0003	.0012	.0039	.0098	.0212	.0407	.0703
	8	.0000	.0000	.0000	.0000	.0001	.0004	.0013	.0035	.0083	.0176
	9	.0000	.0000	.0000	.0000	.0000	.0000	.0001	.0003	.0008	.0020
	10	.0000	.0000	.0000	.0000	.0000	.0000	.0001	.0003	.0008	.0020
10	0	.5987	.3487	.1969	.1074	.0563	.0282	.0135	.0060	.0025	.0010
	1	.3151	.3874	.3474	.2684	.1877	.1211	.0725	.0403	.0207	.0098
	2	.0746	.1937	.2759	.3020	.2816	.2335	.1757	.1209	.0763	.0439
	3	.0105	.0574	.1298	.2013	.2503	.2668	.2522	.2150	.1665	.1172
	4	.0010	.0112	.0401	.0881	.1460	.2001	.2377	.2508	.2384	.2051
	5	.0001	.0015	.0085	.0264	.0584	.1029	.1536	.2007	.2340	.2461
	6	.0000	.0001	.0012	.0055	.0162	.0368	.0689	.1115	.1596	.2051
	7	.0000	.0000	.0001	.0008	.0031	.0090	.0212	.0425	.0746	.1172
	8	.0000	.0000	.0000	.0001	.0004	.0014	.0043	.0106	.0229	.0439
	9	.0000	.0000	.0000	.0000	.0000	.0001	.0005	.0016	.0042	.0098
	10	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0001	.0003	.0010
	11	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0001	.0003	.0010
11	0	.5688	.3138	.1673	.0859	.0422	.0198	.0088	.0036	.0014	.0005
	1	.3293	.3835	.3248	.2362	.1549	.0932	.0518	.0266	.0125	.0054
	2	.0867	.2131	.2866	.2953	.2581	.1998	.1395	.0887	.0513	.0269
	3	.0137	.0710	.1517	.2215	.2581	.2568	.2254	.1774	.1259	.0806
	4	.0014	.0158	.0536	.1107	.1721	.2201	.2428	.2365	.2060	.1611
	5	.0001	.0025	.0132	.0388	.0803	.1321	.1830	.2207	.2360	.2256
	6	.0000	.0003	.0023	.0097	.0268	.0566	.0985	.1471	.1931	.2256
	7	.0000	.0000	.0003	.0017	.0064	.0173	.0379	.0701	.1128	.1611
	8	.0000	.0000	.0000	.0002	.0011	.0037	.0102	.0234	.0462	.0806
	9	.0000	.0000	.0000	.0000	.0001	.0005	.0018	.0052	.0126	.0269
	10	.0000	.0000	.0000	.0000	.0000	.0000	.0002	.0007	.0021	.0054
	11	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0002	.0005
12	0	.5404	.2824	.1422	.0687	.0317	.0138	.0057	.0022	.0008	.0002
	1	.3413	.3766	.3012	.2062	.1267	.0712	.0368	.0174	.0075	.0029
	2	.0988	.2301	.2924	.2835	.2323	.1678	.1088	.0639	.0339	.0161
	3	.0173	.0852	.1720	.2362	.2581	.2397	.1954	.1419	.0923	.0537
	4	.0021	.0213	.0683	.1329	.1936	.2311	.2367	.2128	.1700	.1208
	5	.0002	.0038	.0193	.0532	.1032	.1585	.2039	.2270	.2225	.1934
	6	.0000	.0005	.0040	.0155	.0401	.0792	.1281	.1766	.2124	.2256
	7	.0000	.0000	.0006	.0033	.0115	.0291	.0591	.1009	.1489	.1934
	8	.0000	.0000	.0001	.0005	.0024	.0078	.0199	.0420	.0762	.1208
	9	.0000	.0000	.0000	.0001	.0004	.0015	.0048	.0125	.0277	.0537

BINOMIAL DISTRIBUTION FUNCTION

n	X	P									
		.05	.10	.15	.20	.25	.30	.35	.40	.45	.50
12	10	.0000	.0000	.0000	.0000	.0000	.0002	.0008	.0025	.0068	.0161
	11	.0000	.0000	.0000	.0000	.0000	.0000	.0001	.0003	.0010	.0029
	12	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0001	.0002
13	0	.5133	.2542	.1209	.0550	.0238	.0097	.0037	.0013	.0004	.0001
	1	.3512	.3672	.2774	.1787	.1029	.0540	.0259	.0113	.0045	.0016
	2	.1109	.2448	.2937	.2680	.2059	.1388	.0836	.0453	.0220	.0095
	3	.0214	.0997	.1900	.2457	.2517	.2181	.1651	.1107	.0660	.0349
	4	.0028	.0277	.0838	.1535	.2097	.2337	.2222	.1845	.1350	.0873
	5	.0003	.0055	.0266	.0691	.1258	.1803	.2154	.2214	.1989	.1571
	6	.0000	.0008	.0063	.0230	.0559	.1030	.1546	.1968	.2169	.2095
	7	.0000	.0001	.0011	.0058	.0186	.0442	.0833	.1312	.1775	.2095
	8	.0000	.0001	.0001	.0011	.0047	.0142	.0336	.0656	.1089	.1571
	9	.0000	.0000	.0000	.0001	.0009	.0034	.0101	.0243	.0495	.0873
	10	.0000	.0000	.0000	.0000	.0001	.0006	.0022	.0065	.0162	.0349
	11	.0000	.0000	.0000	.0000	.0000	.0001	.0003	.0012	.0036	.0095
	12	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0001	.0005	.0016
13	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0001	
14	0	.4877	.2288	.1028	.0440	.0178	.0068	.0024	.0008	.0002	.0001
	1	.3593	.3559	.2539	.1539	.0832	.0407	.0181	.0073	.0027	.0009
	2	.1229	.2570	.2912	.2501	.1802	.1134	.0634	.0317	.0141	.0056
	3	.0259	.1142	.2056	.2501	.2402	.1943	.1366	.0845	.0462	.0222
	4	.0037	.0349	.0998	.1720	.2202	.2290	.2022	.1549	.1040	.0611
	5	.0004	.0078	.0352	.0860	.1468	.1963	.2178	.2066	.1701	.1222
	6	.0000	.0013	.0093	.0322	.0734	.1262	.1759	.2066	.2088	.1833
	7	.0000	.0002	.0019	.0092	.0280	.0618	.1082	.1574	.1952	.2095
	8	.0000	.0000	.0003	.0020	.0082	.0232	.0510	.0918	.1398	.1833
	9	.0000	.0000	.0000	.0003	.0018	.0066	.0183	.0408	.0762	.1222
	10	.0000	.0000	.0000	.0000	.0003	.0014	.0049	.0136	.0312	.0611
	11	.0000	.0000	.0000	.0000	.0000	.0002	.0010	.0033	.0093	.0222
	12	.0000	.0000	.0000	.0000	.0000	.0000	.0001	.0005	.0019	.0056
	13	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0001	.0002	.0009
14	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0001	
15	0	.4633	.2059	.0874	.0352	.0134	.0047	.0016	.0005	.0001	.0000
	1	.3658	.3432	.2312	.1319	.0668	.0305	.0126	.0047	.0016	.0005
	2	.1348	.2669	.2856	.2309	.1559	.0916	.0476	.0219	.0090	.0032
	3	.0307	.1285	.2184	.2501	.2252	.1700	.1110	.0634	.0318	.0139
	4	.0049	.0428	.1156	.1876	.2252	.2186	.1792	.1268	.0780	.0417
	5	.0006	.0105	.0449	.1032	.1651	.2061	.2123	.1859	.1404	.0916
	6	.0000	.0019	.0132	.0430	.0917	.1472	.1906	.2066	.1914	.1527
	7	.0000	.0003	.0030	.0138	.0393	.0811	.1319	.1771	.2013	.1964
	8	.0000	.0000	.0005	.0035	.0131	.0348	.0710	.1181	.1647	.1964
	9	.0000	.0000	.0001	.0007	.0034	.0116	.0298	.0612	.1048	.1527
	10	.0000	.0000	.0000	.0001	.0007	.0030	.0096	.0245	.0515	.0916
	11	.0000	.0000	.0000	.0000	.0001	.0006	.0024	.0074	.0191	.0417
	12	.0000	.0000	.0000	.0000	.0000	.0001	.0004	.0016	.0052	.0139
	13	.0000	.0000	.0000	.0000	.0000	.0000	.0001	.0003	.0010	.0032
	14	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0001	.0005
15	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	
16	0	.4401	.1853	.0743	.0281	.0100	.0033	.0010	.0003	.0001	.0000
	1	.3706	.3294	.2097	.1126	.0535	.0228	.0087	.0030	.0009	.0002
	2	.1463	.2745	.2775	.2111	.1336	.0732	.0353	.0150	.0056	.0018
	3	.0359	.1423	.2285	.2463	.2079	.1465	.0888	.0468	.0215	.0085
	4	.0061	.0514	.1311	.2001	.2252	.2040	.1553	.1014	.0572	.0278
	5	.0008	.0137	.0555	.1201	.1802	.2099	.2008	.1623	.1123	.0667
	6	.0001	.0028	.0180	.0550	.1101	.1649	.1982	.1983	.1684	.1222
	7	.0000	.0004	.0045	.0197	.0524	.1010	.1524	.1889	.1969	.1746
	8	.0000	.0001	.0009	.0055	.0197	.0487	.0923	.1417	.1812	.1964
9	.0000	.0000	.0001	.0012	.0058	.0185	.0442	.0840	.1318	.1746	

APPENDIX C

n	X	P									
		.05	.10	.15	.20	.25	.30	.35	.40	.45	.50
16	10	.0000	.0000	.0000	.0002	.0014	.0056	.0167	.0392	.0755	.1222
	11	.0000	.0000	.0000	.0000	.0002	.0013	.0049	.0142	.0337	.0667
	12	.0000	.0000	.0000	.0000	.0000	.0002	.0011	.0040	.0115	.0278
	13	.0000	.0000	.0000	.0000	.0000	.0000	.0002	.0008	.0029	.0085
	14	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0001	.0005	.0018
	15	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0001	.0002
	16	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
17	0	.4181	.1668	.0631	.0225	.0075	.0023	.0007	.0002	.0000	.0000
	1	.3741	.3150	.1893	.0957	.0426	.0169	.0060	.0019	.0005	.0001
	2	.1575	.2800	.2673	.1914	.1136	.0581	.0260	.0102	.0035	.0010
	3	.0415	.1556	.2359	.2393	.1893	.1245	.0701	.0341	.0144	.0052
	4	.0076	.0605	.1457	.2093	.2209	.1868	.1320	.0796	.0411	.0182
	5	.0010	.0175	.0668	.1361	.1914	.2081	.1849	.1379	.0875	.0472
	6	.0001	.0039	.0236	.0680	.1276	.1784	.1991	.1839	.1432	.0944
	7	.0000	.0007	.0065	.0267	.0668	.1201	.1685	.1927	.1841	.1484
	8	.0000	.0001	.0014	.0084	.0279	.0644	.1134	.1606	.1883	.1855
	9	.0000	.0000	.0003	.0021	.0093	.0276	.0611	.1070	.1540	.1855
	10	.0000	.0000	.0000	.0004	.0025	.0095	.0263	.0571	.1008	.1484
	11	.0000	.0000	.0000	.0001	.0005	.0026	.0090	.0242	.0525	.0944
	12	.0000	.0000	.0000	.0000	.0001	.0006	.0024	.0081	.0215	.0472
	13	.0000	.0000	.0000	.0000	.0000	.0001	.0005	.0021	.0068	.0182
	14	.0000	.0000	.0000	.0000	.0000	.0000	.0001	.0004	.0016	.0052
	15	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0001	.0003	.0010
	16	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0001
	17	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
18	0	.3972	.1501	.0536	.0180	.0056	.0016	.0004	.0001	.0000	.0000
	1	.3763	.3002	.1704	.0811	.0338	.0126	.0042	.0012	.0003	.0001
	2	.1683	.2835	.2556	.1723	.0958	.0458	.0190	.0069	.0022	.0006
	3	.0473	.1680	.2406	.2297	.1704	.1046	.0547	.0246	.0095	.0031
	4	.0093	.0700	.1592	.2153	.2130	.1681	.1104	.0614	.0291	.0117
	5	.0014	.0218	.0787	.1507	.1988	.2017	.1664	.1146	.0666	.0327
	6	.0002	.0052	.0301	.0816	.1436	.1873	.1941	.1655	.1181	.0708
	7	.0000	.0010	.0091	.0350	.0820	.1376	.1792	.1892	.1657	.1214
	8	.0000	.0002	.0022	.0120	.0376	.0811	.1327	.1734	.1864	.1669
	9	.0000	.0000	.0004	.0033	.0139	.0386	.0794	.1284	.1694	.1855
	10	.0000	.0000	.0001	.0008	.0042	.0149	.0385	.0771	.1248	.1669
	11	.0000	.0000	.0000	.0001	.0010	.0046	.0151	.0374	.0742	.1214
	12	.0000	.0000	.0000	.0000	.0002	.0012	.0047	.0145	.0354	.0708
	13	.0000	.0000	.0000	.0000	.0000	.0002	.0012	.0045	.0134	.0327
	14	.0000	.0000	.0000	.0000	.0000	.0000	.0002	.0011	.0039	.0117
	15	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0002	.0009	.0031
	16	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0001	.0006
	17	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0001
	18	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
19	0	.3774	.1351	.0456	.0144	.0042	.0011	.0003	.0001	.0000	.0000
	1	.3774	.2852	.1529	.0685	.0268	.0093	.0029	.0008	.0002	.0000
	2	.1787	.2852	.2428	.1540	.0803	.0358	.0138	.0046	.0013	.0003
	3	.0533	.1796	.2428	.2182	.1517	.0869	.0422	.0175	.0062	.0018
	4	.0112	.0798	.1714	.2182	.2023	.1491	.0909	.0467	.0203	.0074
	5	.0018	.0266	.0907	.1636	.2023	.1916	.1468	.0933	.0497	.0222
	6	.0002	.0069	.0374	.0955	.1574	.1916	.1844	.1451	.0949	.0518
	7	.0000	.0014	.0122	.0443	.0974	.1525	.1844	.1797	.1443	.0961
	8	.0000	.0002	.0032	.0166	.0487	.0981	.1489	.1797	.1771	.1442
	9	.0000	.0000	.0007	.0051	.0198	.0514	.0980	.1464	.1771	.1762
	10	.0000	.0000	.0001	.0013	.0066	.0220	.0528	.0976	.1449	.1762
	11	.0000	.0000	.0000	.0003	.0018	.0077	.0233	.0532	.0970	.1442
	12	.0000	.0000	.0000	.0000	.0004	.0022	.0083	.0237	.0529	.0961
	13	.0000	.0000	.0000	.0000	.0001	.0005	.0024	.0085	.0233	.0518
	14	.0000	.0000	.0000	.0000	.0000	.0001	.0006	.0024	.0082	.0222

BINOMIAL DISTRIBUTION FUNCTION

575

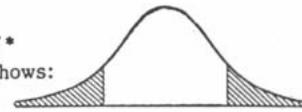
n	X	.05	.10	.15	.20	.25	P	.30	.35	.40	.45	.50
9	15	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0001	.0005	.0022	.0074
	16	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0001	.0005	.0018
	17	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0001	.0003
	18	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
	19	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
10	0	.3585	.1216	.0388	.0115	.0032	.0008	.0002	.0002	.0000	.0000	.0000
	1	.3774	.2702	.1368	.0576	.0211	.0068	.0020	.0020	.0005	.0001	.0000
	2	.1887	.2852	.2293	.1369	.0669	.0278	.0100	.0100	.0031	.0008	.0002
	3	.0596	.1901	.2428	.2054	.1339	.0718	.0323	.0323	.0123	.0040	.0011
	4	.0133	.0898	.1821	.2182	.1897	.1304	.0738	.0738	.0350	.0139	.0046
	5	.0022	.0319	.1028	.1746	.2023	.1789	.1272	.1272	.0746	.0365	.0148
	6	.0003	.0089	.0454	.1091	.1686	.1916	.1712	.1712	.1244	.0746	.0370
	7	.0000	.0020	.0160	.0545	.1124	.1643	.1844	.1844	.1659	.1221	.0739
	8	.0000	.0004	.0046	.0222	.0609	.1144	.1614	.1614	.1797	.1623	.1201
	9	.0000	.0001	.0011	.0074	.0271	.0654	.1158	.1158	.1597	.1771	.1602
	10	.0000	.0000	.0002	.0020	.0099	.0308	.0686	.0686	.1171	.1593	.1762
	11	.0000	.0000	.0000	.0005	.0030	.0120	.0336	.0336	.0710	.1185	.1602
	12	.0000	.0000	.0000	.0001	.0008	.0039	.0136	.0136	.0355	.0727	.1201
	13	.0000	.0000	.0000	.0000	.0002	.0010	.0045	.0045	.0146	.0366	.0739
	14	.0000	.0000	.0000	.0000	.0000	.0002	.0012	.0012	.0049	.0150	.0370
	15	.0000	.0000	.0000	.0000	.0000	.0000	.0003	.0003	.0013	.0049	.0148
	16	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0003	.0013	.0046
	17	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0002	.0011
	18	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0002
	19	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000
	20	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000

# Appendix D

TABLE OF "STUDENT'S" DISTRIBUTION\*

This table shows:

Values of t -

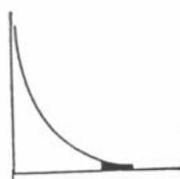


Degrees of Freedom	Level of Significance												
	.9	.8	.7	.6	.5	.4	.3	.2	.1	.05	.02	.01	.001
1	.158	.325	.510	.727	1.000	1.376	1.963	3.078	6.314	12.706	31.821	63.657	636.619
2	.142	.289	.445	.617	.816	1.061	1.386	1.886	2.910	4.303	6.965	9.925	31.598
3	.137	.277	.424	.584	.765	.978	1.250	1.638	2.353	3.182	4.541	5.841	12.941
4	.134	.271	.414	.569	.741	.941	1.190	1.533	2.132	2.776	3.747	4.604	8.610
5	.132	.267	.408	.559	.727	.920	1.156	1.476	2.015	2.571	3.365	4.032	6.859
6	.131	.265	.404	.553	.718	.906	1.134	1.440	1.943	2.447	3.143	3.707	5.959
7	.130	.263	.402	.549	.711	.896	1.119	1.415	1.895	2.365	2.998	3.499	5.405
8	.130	.262	.399	.546	.706	.889	1.108	1.397	1.860	2.306	2.896	3.355	5.041
9	.129	.261	.398	.543	.703	.883	1.100	1.383	1.833	2.262	2.821	3.250	4.781
10	.129	.260	.397	.542	.700	.879	1.093	1.372	1.812	2.228	2.764	3.169	4.587
11	.129	.260	.396	.540	.697	.876	1.088	1.363	1.796	2.201	2.718	3.106	4.437
12	.128	.259	.395	.539	.695	.873	1.083	1.356	1.782	2.179	2.681	3.055	4.318
13	.128	.259	.394	.538	.694	.870	1.079	1.350	1.771	2.160	2.650	3.012	4.221
14	.128	.258	.393	.537	.692	.868	1.076	1.345	1.761	2.145	2.624	2.977	4.140
15	.128	.258	.393	.536	.691	.866	1.074	1.341	1.753	2.131	2.602	2.947	4.073
16	.128	.258	.392	.535	.690	.865	1.071	1.337	1.746	2.120	2.583	2.921	4.015
17	.128	.257	.392	.534	.689	.863	1.069	1.333	1.740	2.110	2.567	2.898	3.965
18	.127	.257	.392	.534	.688	.862	1.067	1.330	1.734	2.101	2.552	2.878	3.922
19	.127	.257	.391	.533	.688	.861	1.066	1.328	1.729	2.093	2.539	2.861	3.883
20	.127	.257	.391	.533	.687	.860	1.064	1.325	1.725	2.086	2.528	2.845	3.850
21	.127	.257	.391	.532	.686	.859	1.063	1.323	1.721	2.080	2.518	2.831	3.819
22	.127	.256	.390	.532	.686	.858	1.061	1.321	1.717	2.074	2.508	2.819	3.792
23	.127	.256	.390	.532	.685	.858	1.060	1.319	1.714	2.069	2.500	2.807	3.767
24	.127	.256	.390	.531	.685	.857	1.059	1.318	1.711	2.064	2.492	2.797	3.745
25	.127	.256	.390	.531	.684	.856	1.058	1.316	1.708	2.060	2.485	2.787	3.725
26	.127	.256	.390	.531	.684	.856	1.058	1.315	1.706	2.056	2.479	2.779	3.707
27	.127	.256	.389	.531	.684	.855	1.057	1.314	1.703	2.052	2.473	2.771	3.690
28	.127	.256	.389	.530	.683	.855	1.056	1.313	1.701	2.048	2.467	2.763	3.674
29	.127	.256	.389	.530	.683	.854	1.055	1.311	1.699	2.045	2.462	2.756	3.659
30	.127	.256	.389	.530	.683	.854	1.055	1.310	1.697	2.042	2.457	2.750	3.646
40	.126	.255	.388	.529	.681	.851	1.050	1.303	1.684	2.021	2.423	2.704	3.551
60	.126	.254	.387	.527	.679	.848	1.046	1.296	1.671	2.000	2.390	2.660	3.460
120	.126	.254	.386	.526	.677	.845	1.041	1.289	1.658	1.980	2.358	2.617	3.373
∞	.126	.253	.385	.524	.674	.842	1.036	1.282	1.645	1.960	2.326	2.576	3.291

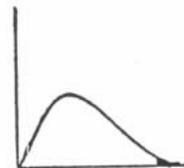
\*This table is reprinted from Table III of Fisher and Yates: *Statistical Tables for Biological, Agricultural, and Medical Research*, published by Oliver and Boyd Ltd., Edinburgh, by permission of the authors and publishers.

# Appendix E

TABLE OF THE DISTRIBUTION OF CHI-SQUARE\*  
Values of  $\chi^2$



For DF = 1, 2



For DF = 3 or more

← This Table Shows →

Degrees of Freedom† DF	Level of Significance								
	.99	.98	.95	.90	.50	.10	.05	.02	.01
1	.000157	.000628	.00393	.0158	.455	2.706	3.841	5.412	6.635
2	.0201	.0404	.103	.211	1.386	4.605	5.991	7.824	9.210
3	.115	.185	.352	.584	2.366	6.251	7.815	9.837	11.345
4	.297	.429	.711	1.064	3.357	7.779	9.488	11.668	13.277
5	.554	.752	1.145	1.610	4.351	9.236	11.070	13.388	15.086
6	.872	1.134	1.635	2.204	5.348	10.645	12.592	15.033	16.812
7	1.239	1.564	2.167	2.833	6.346	12.017	14.067	16.622	18.475
8	1.646	2.032	2.733	3.490	7.344	13.362	15.507	18.168	20.090
9	2.088	2.532	3.325	4.168	8.343	14.684	16.919	19.679	21.666
10	2.558	3.059	3.940	4.865	9.342	15.987	18.307	21.161	23.209
11	3.053	3.609	4.575	5.578	10.341	17.275	19.675	22.618	24.725
12	3.571	4.178	5.226	6.304	11.340	18.549	21.026	24.054	26.217
13	4.107	4.765	5.892	7.042	12.340	19.812	22.362	25.472	27.688
14	4.660	5.368	6.571	7.790	13.339	21.064	23.685	26.873	29.141
15	5.229	5.985	7.261	8.547	14.339	22.307	24.996	28.259	30.578
16	5.812	6.614	7.962	9.312	15.338	23.542	26.296	29.633	32.000
17	6.408	7.255	8.672	10.085	16.338	24.769	27.587	30.995	33.409
18	7.015	7.906	9.390	10.865	17.338	25.989	28.869	32.346	34.805
19	7.633	8.567	10.117	11.651	18.338	27.204	30.144	33.687	36.191
20	8.260	9.237	10.851	12.443	19.337	28.412	31.410	35.020	37.566
21	8.897	9.915	11.591	13.240	20.337	29.615	32.671	36.343	38.932
22	9.542	10.600	12.338	14.041	21.337	30.813	33.924	37.659	40.289
23	10.196	11.293	13.091	14.848	22.337	32.007	35.172	38.968	41.638
24	10.856	11.992	13.848	15.659	23.337	33.196	36.415	40.270	42.980
25	11.524	12.697	14.611	16.473	24.337	34.382	37.652	41.566	44.314
26	12.198	13.409	15.379	17.292	25.336	35.563	38.885	42.856	45.642
27	12.879	14.125	16.151	18.114	26.336	36.741	40.113	44.140	46.963
28	13.565	14.847	16.928	18.939	27.336	37.916	41.337	45.419	48.278
29	14.256	15.574	17.708	19.768	28.336	39.087	42.557	46.693	49.588
30	14.953	16.306	18.493	20.599	29.336	40.256	43.773	47.962	50.892

\*This table is reprinted from Table III of Fisher: *Statistical Methods for Research Workers*, published by Oliver and Boyd Ltd., Edinburgh, by permission of the author and publishers.

†For larger values of degrees of freedom, the quantity  $\sqrt{2\chi^2}$  may be assumed to be approximately normally distributed with mean  $\sqrt{2DF - 1}$  and standard deviation 1. Thus, the statistic,  $\sqrt{2\chi^2} - \sqrt{2DF - 1}$ , may be taken to have the standard normal distribution.

# Appendix F

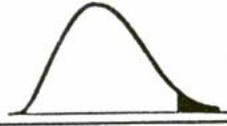
TABLE OF THE F DISTRIBUTION\*

Values of F

Right tail of the distribution for P = 0.05 (light-face type), 0.01 (bold-face type)

DF <sub>2</sub>		DF <sub>1</sub> = Degrees of Freedom for Numerator											
		1	2	3	4	5	6	7	8	9	10	11	12
1	161	200	216	225	230	234	237	239	241	242	243	244	
	<b>4,052</b>	<b>4,999</b>	<b>5,403</b>	<b>5,625</b>	<b>5,764</b>	<b>5,859</b>	<b>5,928</b>	<b>5,981</b>	<b>6,022</b>	<b>6,056</b>	<b>6,082</b>	<b>6,106</b>	
2	18.51	19.00	19.16	19.25	19.30	19.33	19.36	19.37	19.38	19.39	19.40	19.41	
	<b>98.49</b>	<b>99.01</b>	<b>99.17</b>	<b>99.25</b>	<b>99.30</b>	<b>99.33</b>	<b>99.34</b>	<b>99.36</b>	<b>99.38</b>	<b>99.40</b>	<b>99.41</b>	<b>99.42</b>	
3	10.13	9.55	9.28	9.12	9.01	8.94	8.88	8.84	8.81	8.78	8.76	8.74	
	<b>34.12</b>	<b>30.81</b>	<b>29.46</b>	<b>28.71</b>	<b>28.24</b>	<b>27.91</b>	<b>27.67</b>	<b>27.49</b>	<b>27.34</b>	<b>27.23</b>	<b>27.13</b>	<b>27.05</b>	
4	7.71	6.94	6.59	6.39	6.26	6.16	6.09	6.04	6.00	5.96	5.93	5.91	
	<b>21.20</b>	<b>18.00</b>	<b>16.69</b>	<b>15.98</b>	<b>15.52</b>	<b>15.21</b>	<b>14.98</b>	<b>14.80</b>	<b>14.66</b>	<b>14.54</b>	<b>14.45</b>	<b>14.37</b>	
5	6.61	5.79	5.41	5.19	5.05	4.95	4.88	4.82	4.78	4.74	4.70	4.68	
	<b>16.28</b>	<b>13.27</b>	<b>12.06</b>	<b>11.39</b>	<b>10.97</b>	<b>10.67</b>	<b>10.45</b>	<b>10.27</b>	<b>10.15</b>	<b>10.05</b>	<b>9.96</b>	<b>9.89</b>	
6	5.99	5.14	4.76	4.53	4.39	4.28	4.21	4.15	4.10	4.06	4.03	4.00	
	<b>13.74</b>	<b>10.92</b>	<b>9.78</b>	<b>9.15</b>	<b>8.75</b>	<b>8.47</b>	<b>8.26</b>	<b>8.10</b>	<b>7.98</b>	<b>7.87</b>	<b>7.79</b>	<b>7.72</b>	
7	5.59	4.74	4.35	4.12	3.97	3.87	3.79	3.73	3.68	3.63	3.60	3.57	
	<b>12.25</b>	<b>9.55</b>	<b>8.45</b>	<b>7.85</b>	<b>7.46</b>	<b>7.19</b>	<b>7.00</b>	<b>6.84</b>	<b>6.71</b>	<b>6.62</b>	<b>6.54</b>	<b>6.47</b>	
8	5.32	4.46	4.07	3.84	3.69	3.58	3.50	3.44	3.39	3.34	3.31	3.28	
	<b>11.26</b>	<b>8.65</b>	<b>7.59</b>	<b>7.01</b>	<b>6.63</b>	<b>6.37</b>	<b>6.19</b>	<b>6.03</b>	<b>5.91</b>	<b>5.82</b>	<b>5.74</b>	<b>5.67</b>	
9	5.12	4.26	3.86	3.63	3.48	3.37	3.29	3.23	3.18	3.13	3.10	3.07	
	<b>10.56</b>	<b>8.02</b>	<b>6.99</b>	<b>6.42</b>	<b>6.06</b>	<b>5.80</b>	<b>5.62</b>	<b>5.47</b>	<b>5.35</b>	<b>5.26</b>	<b>5.18</b>	<b>5.11</b>	
10	4.96	4.10	3.71	3.48	3.33	3.22	3.14	3.07	3.02	2.97	2.94	2.91	
	<b>10.04</b>	<b>7.56</b>	<b>6.55</b>	<b>5.99</b>	<b>5.64</b>	<b>5.39</b>	<b>5.21</b>	<b>5.06</b>	<b>4.95</b>	<b>4.85</b>	<b>4.78</b>	<b>4.71</b>	
11	4.84	3.98	3.59	3.36	3.20	3.09	3.01	2.95	2.90	2.86	2.82	2.79	
	<b>9.65</b>	<b>7.20</b>	<b>6.22</b>	<b>5.67</b>	<b>5.32</b>	<b>5.07</b>	<b>4.88</b>	<b>4.74</b>	<b>4.63</b>	<b>4.54</b>	<b>4.46</b>	<b>4.40</b>	
12	4.75	3.88	3.49	3.26	3.11	3.00	2.92	2.85	2.80	2.76	2.72	2.69	
	<b>9.33</b>	<b>6.93</b>	<b>5.95</b>	<b>5.41</b>	<b>5.06</b>	<b>4.82</b>	<b>4.65</b>	<b>4.50</b>	<b>4.39</b>	<b>4.30</b>	<b>4.22</b>	<b>4.16</b>	
13	4.67	3.80	3.41	3.18	3.02	2.92	2.84	2.77	2.72	2.67	2.63	2.60	
	<b>9.07</b>	<b>6.70</b>	<b>5.74</b>	<b>5.20</b>	<b>4.86</b>	<b>4.62</b>	<b>4.44</b>	<b>4.30</b>	<b>4.19</b>	<b>4.10</b>	<b>4.02</b>	<b>3.96</b>	
14	4.60	3.74	3.34	3.11	2.96	2.85	2.77	2.70	2.65	2.60	2.56	2.53	
	<b>8.86</b>	<b>6.51</b>	<b>5.56</b>	<b>5.03</b>	<b>4.69</b>	<b>4.46</b>	<b>4.28</b>	<b>4.14</b>	<b>4.03</b>	<b>3.94</b>	<b>3.86</b>	<b>3.80</b>	
15	4.54	3.68	3.29	3.06	2.90	2.79	2.70	2.64	2.59	2.55	2.51	2.48	
	<b>8.68</b>	<b>6.36</b>	<b>5.42</b>	<b>4.89</b>	<b>4.56</b>	<b>4.32</b>	<b>4.14</b>	<b>4.00</b>	<b>3.89</b>	<b>3.80</b>	<b>3.73</b>	<b>3.67</b>	
16	4.49	3.63	3.24	3.01	2.85	2.74	2.66	2.59	2.54	2.49	2.45	2.42	
	<b>8.53</b>	<b>6.23</b>	<b>5.29</b>	<b>4.77</b>	<b>4.44</b>	<b>4.20</b>	<b>4.03</b>	<b>3.89</b>	<b>3.78</b>	<b>3.69</b>	<b>3.61</b>	<b>3.55</b>	
17	4.45	3.59	3.20	2.96	2.81	2.70	2.62	2.55	2.50	2.45	2.41	2.38	
	<b>8.40</b>	<b>6.11</b>	<b>5.18</b>	<b>4.67</b>	<b>4.34</b>	<b>4.10</b>	<b>3.93</b>	<b>3.79</b>	<b>3.68</b>	<b>3.59</b>	<b>3.52</b>	<b>3.45</b>	
18	4.41	3.55	3.16	2.93	2.77	2.66	2.58	2.51	2.46	2.41	2.37	2.34	
	<b>8.28</b>	<b>6.01</b>	<b>5.09</b>	<b>4.58</b>	<b>4.25</b>	<b>4.01</b>	<b>3.85</b>	<b>3.71</b>	<b>3.60</b>	<b>3.51</b>	<b>3.44</b>	<b>3.37</b>	
19	4.38	3.52	3.13	2.90	2.74	2.63	2.55	2.48	2.43	2.38	2.34	2.31	
	<b>8.18</b>	<b>5.93</b>	<b>5.01</b>	<b>4.50</b>	<b>4.17</b>	<b>3.94</b>	<b>3.77</b>	<b>3.63</b>	<b>3.52</b>	<b>3.43</b>	<b>3.36</b>	<b>3.30</b>	
20	4.35	3.49	3.10	2.87	2.71	2.60	2.52	2.45	2.40	2.35	2.31	2.28	
	<b>8.10</b>	<b>5.85</b>	<b>4.94</b>	<b>4.43</b>	<b>4.10</b>	<b>3.87</b>	<b>3.71</b>	<b>3.56</b>	<b>3.45</b>	<b>3.37</b>	<b>3.30</b>	<b>3.23</b>	
21	4.32	3.47	3.07	2.84	2.68	2.57	2.49	2.42	2.37	2.32	2.28	2.25	
	<b>8.02</b>	<b>5.78</b>	<b>4.87</b>	<b>4.37</b>	<b>4.04</b>	<b>3.81</b>	<b>3.65</b>	<b>3.51</b>	<b>3.40</b>	<b>3.31</b>	<b>3.24</b>	<b>3.17</b>	
22	4.30	3.44	3.05	2.82	2.66	2.55	2.47	2.40	2.35	2.30	2.26	2.23	
	<b>7.94</b>	<b>5.72</b>	<b>4.82</b>	<b>4.31</b>	<b>3.99</b>	<b>3.76</b>	<b>3.59</b>	<b>3.45</b>	<b>3.35</b>	<b>3.26</b>	<b>3.18</b>	<b>3.12</b>	
23	4.28	3.42	3.03	2.80	2.64	2.53	2.45	2.38	2.32	2.28	2.24	2.20	
	<b>7.88</b>	<b>5.66</b>	<b>4.76</b>	<b>4.26</b>	<b>3.94</b>	<b>3.71</b>	<b>3.54</b>	<b>3.41</b>	<b>3.30</b>	<b>3.21</b>	<b>3.14</b>	<b>3.07</b>	
24	4.26	3.40	3.01	2.78	2.62	2.51	2.43	2.36	2.30	2.26	2.22	2.18	
	<b>7.82</b>	<b>5.61</b>	<b>4.72</b>	<b>4.22</b>	<b>3.90</b>	<b>3.67</b>	<b>3.50</b>	<b>3.36</b>	<b>3.25</b>	<b>3.17</b>	<b>3.09</b>	<b>3.03</b>	
25	4.24	3.38	2.99	2.76	2.60	2.49	2.41	2.34	2.28	2.24	2.20	2.16	
	<b>7.77</b>	<b>5.57</b>	<b>4.68</b>	<b>4.18</b>	<b>3.86</b>	<b>3.63</b>	<b>3.46</b>	<b>3.32</b>	<b>3.21</b>	<b>3.13</b>	<b>3.05</b>	<b>2.99</b>	
26	4.22	3.37	2.98	2.74	2.59	2.47	2.39	2.32	2.27	2.22	2.18	2.15	
	<b>7.72</b>	<b>5.53</b>	<b>4.64</b>	<b>4.14</b>	<b>3.82</b>	<b>3.59</b>	<b>3.42</b>	<b>3.29</b>	<b>3.17</b>	<b>3.09</b>	<b>3.02</b>	<b>2.96</b>	

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DF <sub>1</sub> = Degrees of Freedom for Numerator												DF <sub>2</sub>	DF <sub>2</sub> = Degrees of Freedom for Denominator
14	16	20	24	30	40	50	75	100	200	500	∞		
245	246	248	249	250	251	252	253	253	254	254	254	1	
6,142	6,169	6,208	6,234	6,258	6,286	6,302	6,323	6,334	6,352	6,361	6,366	2	
19.42	19.43	19.44	19.45	19.46	19.47	19.47	19.48	19.49	19.49	19.50	19.50	3	
99.43	99.44	99.45	99.46	99.47	99.48	99.48	99.49	99.49	99.49	99.50	99.50	4	
8.71	8.69	8.66	8.64	8.62	8.60	8.58	8.57	8.56	8.54	8.54	8.53	5	
26.92	26.83	26.69	26.60	26.50	26.41	26.35	26.27	26.23	26.18	26.14	26.12	6	
5.87	5.84	5.80	5.77	5.74	5.71	5.70	5.68	5.66	5.65	5.64	5.63	7	
14.24	14.15	14.02	13.93	13.83	13.74	13.69	13.61	13.57	13.52	13.48	13.46	8	
4.64	4.60	4.56	4.53	4.50	4.46	4.44	4.42	4.40	4.38	4.37	4.36	9	
9.77	9.68	9.55	9.47	9.38	9.29	9.24	9.17	9.13	9.07	9.04	9.02	10	
3.96	3.92	3.87	3.84	3.81	3.77	3.75	3.72	3.71	3.69	3.68	3.67	11	
7.60	7.52	7.39	7.31	7.23	7.14	7.09	7.02	6.99	6.94	6.90	6.88	12	
3.52	3.49	3.44	3.41	3.38	3.34	3.32	3.29	3.28	3.25	3.24	3.23	13	
6.35	6.27	6.15	6.07	5.98	5.90	5.85	5.78	5.75	5.70	5.67	5.65	14	
3.23	3.20	3.15	3.12	3.08	3.05	3.03	3.00	2.98	2.96	2.94	2.93	15	
5.56	5.48	5.36	5.28	5.20	5.11	5.06	5.00	4.96	4.91	4.88	4.86	16	
3.02	2.98	2.93	2.90	2.86	2.82	2.80	2.77	2.76	2.73	2.72	2.71	17	
5.00	4.92	4.80	4.73	4.64	4.56	4.51	4.45	4.41	4.36	4.33	4.31	18	
2.86	2.82	2.77	2.74	2.70	2.67	2.64	2.61	2.59	2.56	2.55	2.54	19	
4.60	4.52	4.41	4.33	4.25	4.17	4.12	4.05	4.01	3.96	3.93	3.91	20	
2.74	2.70	2.65	2.61	2.57	2.53	2.50	2.47	2.45	2.42	2.41	2.40	21	
4.29	4.21	4.10	4.02	3.94	3.86	3.80	3.74	3.70	3.66	3.62	3.60	22	
2.64	2.60	2.54	2.50	2.46	2.42	2.40	2.36	2.35	2.32	2.31	2.30	23	
4.05	3.98	3.86	3.78	3.70	3.61	3.56	3.49	3.46	3.41	3.38	3.36	24	
2.55	2.51	2.46	2.42	2.38	2.34	2.32	2.28	2.26	2.24	2.22	2.21	25	
3.85	3.78	3.67	3.59	3.51	3.42	3.37	3.30	3.27	3.21	3.18	3.16	26	
2.48	2.44	2.39	2.35	2.31	2.27	2.24	2.21	2.19	2.16	2.14	2.13		
3.70	3.62	3.51	3.43	3.34	3.26	3.21	3.14	3.11	3.06	3.02	3.00		
2.43	2.39	2.33	2.29	2.25	2.21	2.18	2.15	2.12	2.10	2.08	2.07		
3.56	3.48	3.36	3.29	3.20	3.12	3.07	3.00	2.97	2.92	2.89	2.87		
2.37	2.33	2.28	2.24	2.20	2.16	2.13	2.09	2.07	2.04	2.02	2.01		
3.45	3.37	3.25	3.18	3.10	3.01	2.96	2.89	2.86	2.80	2.77	2.75		
2.33	2.29	2.23	2.19	2.15	2.11	2.08	2.04	2.02	1.99	1.97	1.96		
3.35	3.27	3.16	3.08	3.00	2.92	2.86	2.79	2.76	2.70	2.67	2.65		
2.29	2.25	2.19	2.15	2.11	2.07	2.04	2.00	1.98	1.95	1.93	1.92		
3.27	3.19	3.07	3.00	2.91	2.83	2.78	2.71	2.68	2.62	2.59	2.57		
2.26	2.21	2.15	2.11	2.07	2.02	2.00	1.96	1.94	1.91	1.90	1.88		
3.19	3.12	3.00	2.92	2.84	2.76	2.70	2.63	2.60	2.54	2.51	2.49		
2.23	2.18	2.12	2.08	2.04	1.99	1.96	1.92	1.90	1.87	1.85	1.84		
3.13	3.05	2.94	2.86	2.77	2.69	2.63	2.56	2.53	2.47	2.44	2.42		
2.20	2.15	2.09	2.05	2.00	1.96	1.93	1.89	1.87	1.84	1.82	1.81		
3.07	2.99	2.88	2.80	2.72	2.63	2.58	2.51	2.47	2.42	2.38	2.36		
2.18	2.13	2.07	2.03	1.98	1.93	1.91	1.87	1.84	1.81	1.80	1.78		
3.02	2.94	2.83	2.75	2.67	2.58	2.53	2.46	2.42	2.37	2.33	2.31		
2.14	2.10	2.04	2.00	1.96	1.91	1.88	1.84	1.82	1.79	1.77	1.76		
2.97	2.89	2.78	2.70	2.62	2.53	2.48	2.41	2.37	2.32	2.28	2.26		
2.13	2.09	2.02	1.98	1.94	1.89	1.86	1.82	1.80	1.76	1.74	1.73		
2.93	2.85	2.74	2.66	2.58	2.49	2.44	2.36	2.33	2.27	2.23	2.21		
2.11	2.06	2.00	1.96	1.92	1.87	1.84	1.80	1.77	1.74	1.72	1.71		
2.89	2.81	2.70	2.62	2.54	2.45	2.40	2.32	2.29	2.23	2.19	2.17		
2.10	2.05	1.99	1.95	1.90	1.85	1.82	1.78	1.76	1.72	1.70	1.69		
2.86	2.77	2.66	2.58	2.50	2.41	2.36	2.28	2.25	2.19	2.15	2.13		

APPENDIX F

DF <sub>2</sub>	DF <sub>1</sub> = Degrees of Freedom for Numerator											
	1	2	3	4	5	6	7	8	9	10	11	12
	27	4.21 7.68	3.35 5.49	2.96 4.60	2.73 4.11	2.57 3.79	2.46 3.56	2.37 3.39	2.30 3.26	2.25 3.14	2.20 3.06	2.16 2.98
28	4.20 7.64	3.34 5.45	2.95 4.57	2.71 4.07	2.56 3.76	2.44 3.53	2.36 3.36	2.29 3.23	2.24 3.11	2.19 3.03	2.15 2.95	2.12 2.90
29	4.18 7.60	3.33 5.42	2.93 4.54	2.70 4.04	2.54 3.73	2.43 3.50	2.35 3.33	2.28 3.20	2.22 3.08	2.18 3.00	2.14 2.92	2.10 2.87
30	4.17 7.56	3.32 5.39	2.92 4.51	2.69 4.02	2.53 3.70	2.42 3.47	2.34 3.30	2.27 3.17	2.21 3.06	2.16 2.98	2.12 2.90	2.09 2.84
32	4.15 7.50	3.30 5.34	2.90 4.46	2.67 3.97	2.51 3.66	2.40 3.42	2.32 3.25	2.25 3.12	2.19 3.01	2.14 2.94	2.10 2.86	2.07 2.80
34	4.13 7.44	3.28 5.29	2.88 4.42	2.65 3.93	2.49 3.61	2.38 3.38	2.30 3.21	2.23 3.08	2.17 2.97	2.12 2.89	2.08 2.82	2.05 2.76
36	4.11 7.39	3.26 5.25	2.86 4.38	2.63 3.89	2.48 3.58	2.36 3.35	2.28 3.18	2.21 3.04	2.15 2.94	2.10 2.86	2.06 2.78	2.03 2.72
38	4.10 7.35	3.25 5.21	2.85 4.34	2.62 3.86	2.46 3.54	2.35 3.32	2.26 3.15	2.19 3.02	2.14 2.91	2.09 2.82	2.05 2.75	2.02 2.69
40	4.08 7.31	3.23 5.18	2.84 4.31	2.61 3.83	2.45 3.51	2.34 3.29	2.25 3.12	2.18 2.99	2.12 2.88	2.07 2.80	2.04 2.73	2.00 2.66
42	4.07 7.27	3.22 5.15	2.83 4.29	2.59 3.80	2.44 3.49	2.32 3.26	2.24 3.10	2.17 2.96	2.11 2.86	2.06 2.77	2.02 2.70	1.99 2.64
44	4.06 7.24	3.21 5.12	2.82 4.26	2.58 3.78	2.43 3.46	2.31 3.24	2.23 3.07	2.16 2.94	2.10 2.84	2.05 2.75	2.01 2.68	1.98 2.62
46	4.05 7.21	3.20 5.10	2.81 4.24	2.57 3.76	2.42 3.44	2.30 3.22	2.22 3.05	2.14 2.92	2.09 2.82	2.04 2.73	2.00 2.66	1.97 2.60
48	4.04 7.19	3.19 5.08	2.80 4.22	2.56 3.74	2.41 3.42	2.30 3.20	2.21 3.04	2.14 2.90	2.08 2.80	2.03 2.71	1.99 2.64	1.96 2.58
50	4.03 7.17	3.18 5.06	2.79 4.20	2.56 3.72	2.40 3.41	2.29 3.18	2.20 3.02	2.13 2.88	2.07 2.78	2.02 2.70	1.98 2.62	1.95 2.56
55	4.02 7.12	3.17 5.01	2.78 4.16	2.54 3.68	2.38 3.37	2.27 3.15	2.18 2.98	2.11 2.85	2.05 2.75	2.00 2.66	1.97 2.59	1.93 2.53
60	4.00 7.08	3.15 4.98	2.76 4.13	2.52 3.65	2.37 3.34	2.25 3.12	2.17 2.95	2.10 2.82	2.04 2.72	1.99 2.63	1.95 2.56	1.92 2.50
65	3.99 7.04	3.14 4.95	2.75 4.10	2.51 3.62	2.36 3.31	2.24 3.09	2.15 2.93	2.08 2.79	2.02 2.70	1.98 2.61	1.94 2.54	1.90 2.47
70	3.98 7.01	3.13 4.92	2.74 4.08	2.50 3.60	2.35 3.29	2.23 3.07	2.14 2.91	2.07 2.77	2.01 2.67	1.97 2.59	1.93 2.51	1.89 2.45
80	3.96 6.96	3.11 4.88	2.72 4.04	2.48 3.56	2.33 3.25	2.21 3.04	2.12 2.87	2.05 2.74	1.99 2.64	1.95 2.55	1.91 2.48	1.88 2.41
100	3.94 6.90	3.09 4.82	2.70 3.98	2.46 3.51	2.30 3.20	2.19 2.99	2.10 2.82	2.03 2.69	1.97 2.59	1.92 2.51	1.88 2.43	1.85 2.36
125	3.92 6.84	3.07 4.78	2.68 3.94	2.44 3.47	2.29 3.17	2.17 2.95	2.08 2.79	2.01 2.65	1.95 2.56	1.90 2.47	1.86 2.40	1.83 2.33
150	3.91 6.81	3.06 4.75	2.67 3.91	2.43 3.44	2.27 3.14	2.16 2.92	2.07 2.76	2.00 2.62	1.94 2.53	1.89 2.44	1.85 2.37	1.82 2.30
200	3.89 6.76	3.04 4.71	2.65 3.88	2.41 3.41	2.26 3.11	2.14 2.90	2.05 2.73	1.98 2.60	1.92 2.50	1.87 2.41	1.83 2.34	1.80 2.28
400	3.86 6.70	3.02 4.66	2.62 3.83	2.39 3.36	2.23 3.06	2.12 2.85	2.03 2.69	1.96 2.55	1.90 2.46	1.85 2.37	1.81 2.29	1.78 2.23
1,000	3.85 6.66	3.00 4.62	2.61 3.80	2.38 3.34	2.22 3.04	2.10 2.82	2.02 2.66	1.95 2.53	1.89 2.43	1.84 2.34	1.80 2.26	1.76 2.20
∞	3.84 6.64	2.99 4.60	2.60 3.78	2.37 3.32	2.21 3.02	2.09 2.80	2.01 2.64	1.94 2.51	1.88 2.41	1.83 2.32	1.79 2.24	1.75 2.18

THE F DISTRIBUTION

DF <sub>1</sub> = Degrees of Freedom for Numerator												DF <sub>2</sub>	DF <sub>2</sub> = Degrees of Freedom for Denominator
14	16	20	24	30	40	50	75	100	200	500	∞		
2.08	2.03	1.97	1.93	1.88	1.84	1.80	1.76	1.74	1.71	1.68	1.67	27	
2.83	2.74	2.63	2.55	2.47	2.38	2.33	2.25	2.21	2.18	2.12	2.10	28	
2.06	2.02	1.96	1.91	1.87	1.81	1.78	1.75	1.72	1.69	1.67	1.65	29	
2.80	2.71	2.60	2.52	2.44	2.35	2.30	2.22	2.18	2.13	2.09	2.06	30	
2.05	2.00	1.94	1.90	1.85	1.80	1.77	1.73	1.71	1.68	1.65	1.64	32	
2.77	2.68	2.57	2.49	2.41	2.32	2.27	2.19	2.15	2.10	2.06	2.03	34	
2.04	1.99	1.93	1.89	1.84	1.79	1.76	1.72	1.69	1.66	1.64	1.62	36	
2.74	2.66	2.55	2.47	2.38	2.29	2.24	2.16	2.13	2.07	2.03	2.01	38	
2.02	1.97	1.91	1.86	1.82	1.76	1.74	1.69	1.67	1.64	1.61	1.59	40	
2.70	2.62	2.51	2.42	2.34	2.25	2.20	2.12	2.08	2.02	1.98	1.96	42	
2.00	1.95	1.89	1.84	1.80	1.74	1.71	1.67	1.64	1.61	1.59	1.57	44	
2.66	2.58	2.47	2.38	2.30	2.21	2.15	2.08	2.04	1.98	1.94	1.91	46	
1.98	1.93	1.87	1.82	1.78	1.72	1.69	1.65	1.62	1.59	1.56	1.55	48	
2.62	2.54	2.43	2.35	2.26	2.17	2.12	2.04	2.00	1.94	1.90	1.87	50	
1.96	1.92	1.85	1.80	1.76	1.71	1.67	1.63	1.60	1.57	1.54	1.53	55	
2.59	2.51	2.40	2.32	2.22	2.14	2.08	2.00	1.97	1.90	1.86	1.84	60	
1.95	1.90	1.84	1.79	1.74	1.69	1.66	1.61	1.59	1.55	1.53	1.51	65	
2.56	2.49	2.37	2.29	2.20	2.11	2.05	1.97	1.94	1.88	1.84	1.81	70	
1.94	1.89	1.82	1.78	1.73	1.68	1.64	1.60	1.57	1.54	1.51	1.49	80	
2.54	2.46	2.35	2.26	2.17	2.08	2.02	1.94	1.91	1.85	1.80	1.78	100	
1.92	1.88	1.81	1.76	1.72	1.66	1.63	1.58	1.56	1.52	1.50	1.48	125	
2.52	2.44	2.32	2.24	2.15	2.06	2.00	1.92	1.88	1.82	1.78	1.75	150	
1.91	1.87	1.80	1.75	1.71	1.65	1.62	1.57	1.54	1.51	1.48	1.46	200	
2.50	2.42	2.30	2.22	2.13	2.04	1.98	1.90	1.86	1.80	1.76	1.72	400	
1.90	1.86	1.79	1.74	1.70	1.64	1.61	1.56	1.53	1.50	1.47	1.45	1,000	
2.48	2.40	2.28	2.20	2.11	2.02	1.96	1.88	1.84	1.78	1.73	1.70	∞	
1.90	1.85	1.78	1.74	1.69	1.63	1.60	1.55	1.52	1.48	1.46	1.44		
2.46	2.39	2.26	2.18	2.10	2.00	1.94	1.86	1.82	1.76	1.71	1.68		
1.88	1.83	1.76	1.72	1.67	1.61	1.58	1.52	1.50	1.46	1.43	1.41		
2.43	2.35	2.23	2.15	2.06	1.96	1.90	1.82	1.78	1.71	1.66	1.64		
1.86	1.81	1.75	1.70	1.65	1.59	1.56	1.50	1.48	1.44	1.41	1.39		
2.40	2.32	2.20	2.12	2.03	1.93	1.87	1.79	1.74	1.68	1.63	1.60		
1.85	1.80	1.73	1.68	1.63	1.57	1.54	1.49	1.46	1.42	1.39	1.37		
2.37	2.30	2.18	2.09	2.00	1.90	1.84	1.76	1.71	1.64	1.60	1.56		
1.84	1.79	1.72	1.67	1.62	1.56	1.53	1.47	1.45	1.40	1.37	1.35		
2.35	2.28	2.15	2.07	1.98	1.88	1.82	1.74	1.69	1.62	1.56	1.53		
1.82	1.77	1.70	1.65	1.60	1.54	1.51	1.45	1.42	1.38	1.35	1.32		
2.32	2.24	2.11	2.03	1.94	1.84	1.78	1.70	1.65	1.57	1.52	1.49		
1.79	1.75	1.68	1.63	1.57	1.51	1.48	1.42	1.39	1.34	1.30	1.28		
2.26	2.19	2.06	1.98	1.89	1.79	1.73	1.64	1.59	1.51	1.46	1.43		
1.77	1.72	1.65	1.60	1.55	1.49	1.45	1.39	1.36	1.31	1.27	1.25		
2.23	2.15	2.03	1.94	1.85	1.75	1.68	1.59	1.54	1.46	1.40	1.37		
1.76	1.71	1.64	1.59	1.54	1.47	1.44	1.37	1.34	1.29	1.25	1.22		
2.20	2.12	2.00	1.91	1.83	1.72	1.66	1.56	1.51	1.43	1.37	1.33		
1.74	1.69	1.62	1.57	1.52	1.45	1.42	1.35	1.32	1.26	1.22	1.19		
2.17	2.09	1.97	1.88	1.79	1.69	1.62	1.53	1.48	1.39	1.33	1.28		
1.72	1.67	1.60	1.54	1.49	1.42	1.38	1.32	1.28	1.22	1.16	1.13		
2.12	2.04	1.92	1.84	1.74	1.64	1.57	1.47	1.42	1.32	1.24	1.19		
1.70	1.65	1.58	1.53	1.47	1.41	1.36	1.30	1.26	1.19	1.13	1.08		
2.09	2.01	1.89	1.81	1.71	1.61	1.54	1.44	1.38	1.28	1.19	1.11		
1.69	1.64	1.57	1.52	1.46	1.40	1.35	1.28	1.24	1.17	1.11	1.00		
2.07	1.99	1.87	1.79	1.69	1.59	1.52	1.41	1.36	1.25	1.15	1.00		