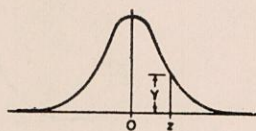


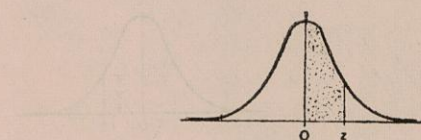
APPENDICES

Ordinates Y of the Standard Normal Density



z	0	1	2	3	4	5	6	7	8	9
0.0	0.3989	0.3989	0.3989	0.3988	0.3986	0.3984	0.3982	0.3980	0.3977	0.3973
0.1	0.3970	0.3965	0.3961	0.3956	0.3951	0.3945	0.3939	0.3932	0.3925	0.3918
0.2	0.3910	0.3902	0.3894	0.3885	0.3876	0.3867	0.3857	0.3847	0.3836	0.3825
0.3	0.3814	0.3802	0.3790	0.3778	0.3765	0.3752	0.3739	0.3725	0.3717	0.3697
0.4	0.3683	0.3668	0.3653	0.3637	0.3621	0.3605	0.3589	0.3572	0.3555	0.3538
0.5	0.3521	0.3503	0.3485	0.3467	0.3448	0.3429	0.3410	0.3391	0.3372	0.3352
0.6	0.3332	0.3312	0.3292	0.3271	0.3251	0.3230	0.3209	0.3187	0.3166	0.3144
0.7	0.3123	0.3101	0.3079	0.3056	0.3034	0.3011	0.2989	0.2966	0.2943	0.2920
0.8	0.2897	0.2874	0.2850	0.2827	0.2803	0.2780	0.2756	0.2732	0.2709	0.2685
0.9	0.2661	0.2637	0.2613	0.2589	0.2565	0.2541	0.2516	0.2492	0.2468	0.2444
1.0	0.2420	0.2396	0.2371	0.2347	0.2323	0.2299	0.2275	0.2251	0.2227	0.2203
1.1	0.2179	0.2155	0.2131	0.2107	0.2083	0.2059	0.2036	0.2012	0.1989	0.1965
1.2	0.1942	0.1919	0.1895	0.1872	0.1849	0.1827	0.1804	0.1781	0.1759	0.1736
1.3	0.1714	0.1692	0.1669	0.1647	0.1626	0.1604	0.1582	0.1561	0.1540	0.1518
1.4	0.1497	0.1476	0.1456	0.1435	0.1415	0.1394	0.1374	0.1354	0.1334	0.1315
1.5	0.1295	0.1276	0.1257	0.1238	0.1219	0.1200	0.1182	0.1163	0.1145	0.1127
1.6	0.1109	0.1092	0.1074	0.1057	0.1040	0.1023	0.1006	0.0989	0.0973	0.0957
1.7	0.0941	0.0925	0.0909	0.0893	0.0878	0.0863	0.0848	0.0833	0.0818	0.0804
1.8	0.0790	0.0775	0.0762	0.0748	0.0734	0.0721	0.0707	0.0694	0.0682	0.0669
1.9	0.0656	0.0644	0.0632	0.0620	0.0608	0.0596	0.0584	0.0573	0.0562	0.0551
2.0	0.0540	0.0529	0.0519	0.0508	0.0498	0.0488	0.0478	0.0468	0.0459	0.0449
2.1	0.0440	0.0431	0.0422	0.0413	0.0404	0.0396	0.0387	0.0379	0.0371	0.0363
2.2	0.0355	0.0347	0.0339	0.0332	0.0325	0.0317	0.0310	0.0303	0.0297	0.0290
2.3	0.0283	0.0277	0.0271	0.0264	0.0258	0.0252	0.0246	0.0241	0.0235	0.0229
2.4	0.0224	0.0219	0.0213	0.0208	0.0203	0.0198	0.0194	0.0189	0.0184	0.0180
2.5	0.0175	0.0171	0.0167	0.0163	0.0159	0.0155	0.0151	0.0147	0.0143	0.0139
2.6	0.0136	0.0132	0.0129	0.0126	0.0122	0.0119	0.0116	0.0113	0.0110	0.0107
2.7	0.0104	0.0101	0.0099	0.0096	0.0093	0.0091	0.0088	0.0086	0.0084	0.0081
2.8	0.0079	0.0077	0.0075	0.0073	0.0071	0.0069	0.0067	0.0065	0.0063	0.0061
2.9	0.0060	0.0058	0.0056	0.0055	0.0053	0.0051	0.0050	0.0048	0.0047	0.0046
3.0	0.0044	0.0043	0.0042	0.0041	0.0039	0.0038	0.0037	0.0036	0.0035	0.0034
3.1	0.0033	0.0032	0.0031	0.0030	0.0029	0.0028	0.0027	0.0026	0.0025	0.0025
3.2	0.0024	0.0023	0.0022	0.0022	0.0021	0.0020	0.0020	0.0019	0.0018	0.0018

Areas under the Standard Normal Density from 0 to z

[illegible]

APPENDIX — III

Gamma Function

$$\text{Values of } \Gamma(n) = \int_0^\infty e^{-x} x^{n-1} dx; \Gamma(n+1) = n\Gamma(n)$$

n	$\Gamma(n)$	n	$\Gamma(n)$	n	$\Gamma(n)$	n	$\Gamma(n)$
1.00	1.00000	1.25	.90640	1.50	.88623	1.75	.91906
1.01	.99433	1.26	.90440	1.51	.88659	1.76	.92137
1.02	.98884	1.27	.90250	1.52	.88704	1.77	.92376
1.03	.98355	1.28	.90072	1.53	.88757	1.78	.92623
1.04	.97844	1.29	.89904	1.54	.88818	1.79	.92877
1.05	.97350	1.30	.89747	1.55	.88887	1.80	.93138
1.06	.96874	1.31	.89600	1.56	.88964	1.81	.93408
1.07	.96415	1.32	.89464	1.57	.89049	1.82	.93685
1.08	.95973	1.33	.89338	1.58	.89142	1.83	.93969
1.09	.95546	1.34	.89222	1.59	.89243	1.84	.94261
1.10	.95135	1.35	.89115	1.60	.89352	1.85	.94561
1.11	.94739	1.36	.89018	1.61	.89468	1.86	.94869
1.12	.94359	1.37	.88931	1.62	.89592	1.87	.95184
1.13	.93993	1.38	.88854	1.63	.89724	1.88	.95507
1.14	.93642	1.39	.88785	1.64	.89864	1.89	.95838
1.15	.93304	1.40	.88726	1.65	.90012	1.90	.96177
1.16	.92980	1.41	.88676	1.66	.90167	1.91	.96523
1.17	.92670	1.42	.88636	1.67	.90330	1.92	.96878
1.18	.92373	1.43	.88604	1.68	.90500	1.93	.97240
1.19	.92088	1.44	.88580	1.69	.90678	1.94	.97610
1.20	.91817	1.45	.88565	1.70	.90864	1.95	.97988
1.21	.91558	1.46	.88560	1.71	.91057	1.96	.98374
1.22	.91311	1.47	.88563	1.72	.91258	1.97	.98768
1.23	.91075	1.48	.88575	1.73	.91466	1.98	.99171
1.24	.90852	1.49	.88595	1.74	.91683	1.99	.99581
						2.00	1.00000

* For large positive values of x , $\Gamma(x)$ approximates the asymptotic series

$$x^x e^{-x} \sqrt{\frac{2\pi}{x}} \left[1 + \frac{1}{12x} + \frac{1}{288x^2} - \frac{139}{51840x^3} - \frac{571}{2488320x^4} + \dots \right]$$

APPENDIX—IV
TABLES OF K—VALUES FOR PEARSON TYPE—III DISTRIBUTION

P	G = 0.0	G = 0.1	G = 0.2	G = 0.3	G = 0.4	G = 0.5	G = 0.6
0.9999	-3.71902	-3.50703	-3.29921	-3.09631	-2.89907	-2.70836	-2.52507
0.9995	-3.29053	-3.12767	-2.96698	-2.80889	-2.65390	-2.50257	-2.35549
0.9990	-3.09023	-2.94834	-2.80786	-2.66915	-2.53261	-2.39867	-2.26780
0.9980	-2.87416	-2.75706	-2.63672	-2.51741	-2.39942	-2.28311	-2.16884
0.9950	-2.57583	-2.48187	-2.38795	-2.29423	-2.20092	-2.10825	-2.01644
0.9900	-2.32635	-2.25258	-2.17840	-2.10394	-2.02933	-1.95472	-1.88029
0.9800	-2.05375	-1.99973	-1.94499	-1.88959	-1.83361	-1.77716	-1.72033
0.9750	-1.95996	-1.91219	-1.86360	-1.81427	-1.76427	-1.71366	-1.66253
0.9600	-1.75069	-1.71580	-1.67999	-1.64329	-1.60574	-1.56740	-1.52830
0.9500	-1.64485	-1.61594	-1.58607	-1.55527	-1.52357	-1.49101	-1.45762
0.9000	-1.28155	-1.27037	-1.25824	-1.24516	-1.23114	-1.21618	-1.20028
0.8000	-0.84162	-0.84611	-0.84986	-0.85285	-0.85508	-0.85653	-0.85718
0.7000	-0.52440	-0.53624	-0.54757	-0.55839	-0.56867	-0.57840	-0.58757
0.6000	-0.25335	-0.26882	-0.28403	-0.29897	-0.31362	-0.32796	-0.34198
0.5704	-0.17733	-0.19339	-0.20925	-0.22492	-0.24037	-0.25558	-0.27047
0.5000	0.0	-0.01662	-0.03325	-0.04993	-0.06651	-0.08302	-0.09945
0.4296	0.17733	0.16111	0.14472	0.12820	0.11154	0.09478	0.07791
0.4000	0.25335	0.23763	0.22168	0.20552	0.18916	0.17261	0.15589
0.3000	0.52440	0.51207	0.49927	0.48600	0.47228	0.45812	0.44352
0.2000	0.84162	0.83639	0.83044	0.82377	0.81638	0.80829	0.79950
0.1000	1.28155	1.29178	1.30105	1.30936	1.31671	1.32309	1.32850
0.0500	1.64485	1.67279	1.69971	1.72562	1.75048	1.77428	1.79701
0.0400	1.75069	1.78462	1.81756	1.84949	1.88039	1.91022	1.93896
0.0250	1.95996	2.00688	2.05290	2.09795	2.14202	2.18505	2.22702
0.0200	2.05375	2.10697	2.15935	2.21081	2.26133	2.31084	2.35931
0.0100	2.32635	2.39961	2.47226	2.54421	2.61539	2.68572	2.75514
0.0050	2.57583	2.66965	2.76321	2.85636	2.94900	3.04102	3.13232
0.0020	2.87816	2.99978	3.12169	3.24371	3.36566	3.48737	3.60872
0.0010	3.09023	3.23322	3.37703	3.52139	3.66608	3.81090	3.95567
0.0005	3.29053	3.45513	3.62113	3.78820	3.95605	4.12443	4.29311
0.0001	3.71902	3.93453	4.15301	4.37394	4.59687	4.82141	5.04718

P — Probability of exceedance

G — Coefficient of skewness

P	G = 0.7	G = 0.8	G = 0.9	G = 1.0	G = 1.1	G = 1.2	G = 1.3
0.9999	-2.35015	-2.18448	-2.02891	-1.88410	-1.75053	-1.62838	-1.51752
0.9995	-2.21328	-2.07661	-1.94611	-1.82241	-1.70603	-1.59738	-1.49673
0.9990	-2.14053	-2.01739	-1.89894	-1.78572	-1.67825	-1.57695	-1.48216
0.9980	-2.05701	-1.94806	-1.84244	-1.74062	-1.64305	-1.55016	-1.46232
0.9950	-1.92580	-1.83660	-1.74919	-1.66390	-1.58110	-1.50114	-1.42439
0.9900	-1.80621	-1.73271	-1.66001	-1.58838	-1.51808	-1.44942	-1.38267
0.9800	-1.66325	-1.60604	-1.54886	-1.49188	-1.43529	-1.37929	-1.32412
0.9750	-1.61099	-1.55914	-1.50712	-1.45507	-1.40314	-1.35153	-1.30042
0.9600	-1.48852	-1.44813	-1.40720	-1.36584	-1.32414	-1.28225	-1.24028
0.9500	-1.42345	-1.38855	-1.35299	-1.31684	-1.28019	-1.24313	-1.20578
0.9000	-1.18347	-1.16574	-1.14712	-1.12762	-1.10726	-1.08608	-1.06413
0.8000	-0.85703	-0.85607	-0.85426	-0.85161	-0.84809	-0.84369	-0.83841
0.7000	-0.59615	-0.60412	-0.61146	-0.61815	-0.62415	-0.62944	-0.63400
0.6000	-0.35565	-0.36889	-0.38186	-0.39434	-0.40638	-0.41794	-0.42899
0.5704	-0.28516	-0.29961	-0.31368	-0.32740	-0.34075	-0.35370	-0.36620
0.5000	-0.11578	-0.13199	-0.14807	-0.16397	-0.17968	-0.19517	-0.21040
0.4296	0.06097	0.04397	0.02693	0.00987	-0.00719	-0.02421	-0.04116
0.4000	0.13901	0.12199	0.10486	0.08763	0.07032	0.05297	0.03560
0.3000	0.42851	0.41309	0.39729	0.38111	0.36458	0.34772	0.33054
0.2000	0.79002	0.77986	0.76902	0.75752	0.74537	0.73257	0.71915
0.1000	1.33294	1.33640	1.33889	1.34039	1.34092	1.34047	1.33904
0.0500	1.81864	1.83916	1.85856	1.87683	1.89395	1.90992	1.92472
0.0400	1.96660	1.99311	2.01848	2.04269	2.06573	2.08758	2.10823
0.0250	2.26790	2.30764	2.34623	2.38364	2.41984	2.45482	2.48855
0.0200	2.40670	2.45298	2.49811	2.54206	2.58480	2.62631	2.66657
0.0100	2.82359	2.89101	2.95735	3.02256	3.08660	3.14944	3.21103
0.0050	3.22281	3.31243	3.40109	3.48874	3.57530	3.66073	3.74497
0.0020	3.72957	3.84981	3.96932	4.08902	4.20582	4.32263	4.43839
0.0010	4.10022	4.24439	4.38807	4.53112	4.67344	4.81492	4.95549
0.0005	4.46189	4.63057	4.79899	4.96701	5.13449	5.30130	5.46735
0.0001	5.27389	5.50124	5.72899	5.95691	6.18480	6.41249	6.63980

P	G = 1.4	G = 1.5	G = 1.6	G = 1.7	G = 1.8	G = 1.9	G = 2.0
0.9999	-1.41753	-1.32774	-1.24728	-1.17520	-1.11054	-1.05239	-0.99990
0.9995	-1.40413	-1.31944	-1.24235	-1.17240	-1.10901	-1.05159	-0.99950
0.9990	-1.39408	-1.31275	-1.23805	-1.16974	-1.10743	-1.05068	-0.99900
0.9980	-1.37981	-1.30279	-1.23132	-1.16534	-1.10465	-1.04898	-0.99800
0.9950	-1.35114	-1.28167	-1.21618	-1.15477	-1.09749	-1.04427	-0.99499
0.9900	-1.31815	-1.25611	-1.19680	-1.14042	-1.08711	-1.03695	-0.98995
0.9800	-1.26999	-1.21716	-1.16584	-1.11628	-1.06864	-1.02311	-0.97980
0.9750	-1.25004	-1.20059	-1.15229	-1.10537	-1.06001	-1.01640	-0.97468
0.9600	-1.19842	-1.15682	-1.11566	-1.07513	-1.03543	-0.99672	-0.95918
0.9500	-1.16827	-1.13075	-1.09338	-1.05631	-1.01973	-0.98381	-0.94371
0.9000	-1.04144	-1.01810	-0.99418	-0.96977	-0.94496	-0.91988	-0.89464
0.8000	-0.83223	-0.82516	-0.81720	-0.80837	-0.79868	-0.78816	-0.77686
0.7000	-0.63779	-0.64080	-0.64300	-0.64436	-0.64488	-0.64453	-0.64333
0.6000	-0.43949	-0.44942	-0.45873	-0.46739	-0.47538	-0.48265	-0.48917
0.5704	-0.37824	-0.38977	-0.40075	-0.41116	-0.42095	-0.43008	-0.43854
0.5000	-0.22535	-0.23996	-0.25422	-0.26808	-0.28150	-0.29443	-0.30685
0.4296	-0.05803	-0.07476	-0.09132	-0.10769	-0.12381	-0.13964	-0.15516
0.4000	0.01824	0.00092	-0.01631	-0.03344	-0.05040	-0.06718	-0.08371
0.3000	0.31307	0.29535	0.27740	0.25925	0.24094	0.22250	0.20397
0.2000	0.70512	0.69050	0.67532	0.65959	0.64335	0.62662	0.60944
0.1000	1.33665	1.33330	1.32900	1.32376	1.31760	1.31054	1.30259
0.0500	1.93836	1.95083	1.96213	1.97227	1.98124	1.98906	1.99573
0.0400	2.12768	2.14591	2.16293	2.17873	2.19332	2.20670	2.21888
0.0250	2.52102	2.55222	2.58214	2.61076	2.63810	2.66413	2.68888
0.0200	2.70556	2.74325	2.77964	2.81472	2.84848	2.88091	2.91202
0.0100	3.27134	3.33035	3.38804	3.44438	3.49935	3.55295	3.60517
0.0050	3.82798	3.90973	3.99016	4.06926	4.14700	4.22336	4.29832
0.0020	4.55304	4.66651	4.77875	4.88971	4.99937	5.10768	5.21461
0.0010	5.09505	5.23353	5.37087	5.50701	5.64190	5.77549	5.90776
0.0005	5.63252	5.79673	5.95990	6.12196	6.28285	6.44251	6.60090
0 0001	6.86661	7.09277	7.31818	7.54272	7.76632	7.98888	8.21034

P	G = 2.1	G = 2.2	G = 2.3	G = 2.4	G = 2.5	G = 2.6	G = 2.7
0.9999	-0.95234	-0.90908	-0.86956	-0.83333	-0.80000	-0.76923	-0.74074
0.9995	-0.95215	-0.90899	-0.86952	-0.83331	-0.79999	-0.76923	-0.74074
0.9990	-0.95188	-0.90885	-0.86945	-0.83328	-0.79998	-0.76922	-0.74074
0.9980	-0.95131	-0.90854	-0.86929	-0.83320	-0.79994	-0.76920	-0.74073
0.9950	-0.94945	-0.90742	-0.86863	-0.83283	-0.79973	-0.76909	-0.74067
0.9900	-0.94607	-0.90521	-0.86723	-0.83196	-0.79921	-0.76878	-0.74049
0.9800	-0.93878	-0.90009	-0.86371	-0.82959	-0.79765	-0.76779	-0.73987
0.9750	-0.93495	-0.89728	-0.86169	-0.82817	-0.79667	-0.76712	-0.73943
0.9600	-0.92295	-0.88814	-0.85486	-0.82315	-0.79306	-0.76456	-0.73765
0.9500	-0.91458	-0.88156	-0.84976	-0.81927	-0.79015	-0.76242	-0.73610
0.9000	-0.86938	-0.84422	-0.81929	-0.79472	-0.77062	-0.74709	-0.72422
0.8000	-0.76482	-0.75211	-0.73880	-0.72495	-0.71067	-0.69602	-0.68111
0.7000	-0.64125	-0.63833	-0.63456	-0.62999	-0.62463	-0.61854	-0.61176
0.6000	-0.49494	-0.49991	-0.50409	-0.50744	-0.50999	-0.51171	-0.51263
0.5704	-0.44628	-0.45329	-0.45953	-0.46499	-0.46966	-0.47353	-0.47660
0.5000	-0.31872	-0.32999	-0.34063	-0.35062	-0.35992	-0.36852	-0.37640
0.4296	-0.17030	-0.18504	-0.19933	-0.21313	-0.22642	-0.23915	-0.25129
0.4000	-0.09997	-0.11590	-0.13148	-0.14665	-0.16138	-0.17564	-0.18939
0.3000	0.18540	0.16682	0.14827	0.12979	0.11143	0.09323	0.07523
0.2000	0.59183	0.57383	0.55549	0.53683	0.51789	0.49872	0.47934
0.1000	1.29377	1.28412	1.27365	1.26240	1.25039	1.23766	1.22422
0.0500	2.00128	2.00570	2.00903	2.01128	2.01247	2.01263	2.01177
0.0400	2.22986	2.23967	2.24831	2.25581	2.26217	2.26743	2.27160
0.0250	2.71234	2.73451	2.75541	2.77506	2.79345	2.81062	2.82658
0.0200	2.94181	2.97028	2.99744	3.02330	3.04787	3.07116	3.09320
0.0100	3.65600	3.70543	3.75347	3.80013	3.84540	3.88930	3.93183
0.0050	4.37186	4.44398	4.51467	4.58393	4.65176	4.71815	4.78313
0.0020	5.32014	5.42426	5.52694	5.62818	5.72796	5.82629	5.92316
0.0010	6.03865	6.16816	6.29626	6.42292	6.54814	6.67191	6.79421
0.0005	6.75798	6.91370	7.06804	7.22098	7.37250	7.52258	7.67121
0.0001	8.43064	8.64971	8.86753	9.08403	9.29920	9.51301	9.72543

P	G = 2.8	G = 2.9	G = 3.0	G = 3.1	G = 3.2	G = 3.3	G = 3.4
0.9999	-0.71429	-0.68966	-0.66667	-0.64516	-0.62500	-0.60606	-0.58824
0.9995	-0.71429	-0.68966	-0.66667	-0.64516	-0.62500	-0.60606	-0.58824
0.9990	-0.71429	-0.68965	-0.66667	-0.64516	-0.62500	-0.60606	-0.58824
0.9980	-0.71428	-0.68965	-0.66667	-0.64516	-0.62500	-0.60606	-0.58824
0.9950	-0.71425	-0.68964	-0.66666	-0.64516	-0.62500	-0.60606	-0.58824
0.9900	-0.71415	-0.68959	-0.66663	-0.64514	-0.62499	-0.60606	-0.58823
0.9800	-0.71377	-0.68935	-0.66649	-0.64507	-0.62495	-0.60603	-0.58822
0.9750	-0.71348	-0.68917	-0.66638	-0.64500	-0.62491	-0.60601	-0.58821
0.9600	-0.71227	-0.68836	-0.66585	-0.64465	-0.62469	-0.60587	-0.58812
0.9500	-0.71116	-0.68759	-0.66532	-0.64429	-0.62445	-0.60572	-0.58802
0.9000	-0.70209	-0.68075	-0.66023	-0.64056	-0.62175	-0.60379	-0.58666
0.8000	-0.66603	-0.65086	-0.63569	-0.62060	-0.60567	-0.59096	-0.57652
0.7000	-0.60434	-0.59634	-0.58783	-0.57887	-0.56953	-0.55989	-0.55000
0.6000	-0.51276	-0.51212	-0.51073	-0.50863	-0.50585	-0.50244	-0.49844
0.5704	-0.47888	-0.48037	-0.48109	-0.48107	-0.48033	-0.47890	-0.47682
0.5000	-0.38353	-0.38991	-0.39554	-0.40041	-0.40454	-0.40792	-0.41058
0.4296	-0.26282	-0.27372	-0.28395	-0.29351	-0.30238	-0.31055	-0.31802
0.4000	-0.20259	-0.21523	-0.22726	-0.23868	-0.24946	-0.25958	-0.26904
0.3000	0.05746	0.03997	0.02279	0.00596	-0.01050	-0.02654	-0.04215
0.2000	0.45980	0.44015	0.42040	0.40061	0.38081	0.36104	0.34133
0.1000	1.21013	1.19539	1.18006	1.16416	1.14772	1.13078	1.11337
0.0500	2.00992	2.00710	2.00335	1.99869	1.99314	1.98674	1.97951
0.0400	2.27470	2.27676	2.27780	2.27785	2.27693	2.27506	2.27229
0.0250	2.84134	2.85492	2.86735	2.87865	2.88884	2.89795	2.90599
0.0200	3.11399	3.13356	3.15193	3.16911	3.18512	3.20000	3.21375
0.0100	3.97301	4.01286	4.05138	4.08859	4.12452	4.15917	4.19257
0.0050	4.84669	4.90884	4.96959	5.02897	5.08697	5.14362	5.19892
0.0020	6.01858	6.11254	6.20506	6.29613	6.38578	6.47401	6.56084
0.0010	6.91505	7.03443	7.15235	7.26881	7.38382	7.49739	7.60953
0.0005	7.81839	7.96411	8.10836	8.25115	8.39248	8.53236	8.67079
0.0001	9.93643	10.14602	10.35418	10.56090	10.76618	10.97001	11.17239

P	G = 3.5	G = 3.6	G = 3.7	G = 3.8	G = 3.9	G = 4.0	G = 4.1
0.9999	-0.57143	-0.55556	-0.54054	-0.52632	-0.51282	-0.50000	-0.48780
0.9995	-0.57143	-0.55556	-0.54054	-0.52632	-0.51282	-0.50000	-0.48780
0.9990	-0.57143	-0.55556	-0.54054	-0.52632	-0.51282	-0.50000	-0.48780
0.9980	-0.57143	-0.55556	-0.54054	-0.52632	-0.51282	-0.50000	-0.48780
0.9950	-0.57143	-0.55556	-0.54054	-0.52632	-0.51282	-0.50000	-0.48780
0.9900	-0.57143	-0.55556	-0.54054	-0.52632	-0.51282	-0.50000	-0.48780
0.9800	-0.57142	-0.55555	-0.54054	-0.52631	-0.51282	-0.50000	-0.48780
0.9750	-0.57141	-0.55555	-0.54054	-0.52631	-0.51282	-0.50000	-0.48780
0.9600	-0.57136	-0.55552	-0.54052	-0.52630	-0.51281	-0.50000	-0.48780
0.9500	-0.57130	-0.55548	-0.54050	-0.52629	-0.51281	-0.49999	-0.48780
0.9000	-0.57035	-0.55483	-0.54006	-0.52600	-0.51261	-0.49986	-0.48772
0.8000	-0.56242	-0.54867	-0.53533	-0.52240	-0.50990	-0.49784	-0.48622
0.7000	-0.53993	-0.52975	-0.51952	-0.50929	-0.49911	-0.48902	-0.47906
0.6000	-0.49391	-0.48888	-0.48342	-0.47758	-0.47141	-0.46496	-0.45828
0.5704	-0.47413	-0.47088	-0.46711	-0.46286	-0.45819	-0.45314	-0.44777
0.5000	-0.41253	-0.41381	-0.41442	-0.41441	-0.41381	-0.41265	-0.41097
0.4296	-0.32479	-0.33085	-0.33623	-0.34092	-0.34494	-0.34831	-0.35105
0.4000	-0.27782	-0.28592	-0.29335	-0.30010	-0.30617	-0.31159	-0.31635
0.3000	-0.05730	-0.07195	-0.08610	-0.09972	-0.11279	-0.12530	-0.13725
0.2000	0.32171	0.30223	0.28290	0.26376	0.24484	0.22617	0.20777
0.1000	1.09552	1.07726	1.05863	1.03965	1.02036	1.00079	0.98096
0.0500	1.97147	1.95266	1.95311	1.94283	1.93186	1.92023	1.90796
0.0400	2.26862	2.26409	2.25872	2.25254	2.24558	2.23786	2.22940
0.0250	2.91299	2.91898	2.92397	2.92799	2.93107	2.93324	2.93450
0.0200	3.22641	3.23800	3.24853	3.25803	3.26653	3.27404	3.28060
0.0100	4.22473	4.25569	4.28545	4.31403	4.34147	4.36777	4.39296
0.0050	5.25291	5.30559	5.35698	5.40711	5.45598	5.50362	5.55005
0.0020	6.64627	6.73032	6.81301	6.89435	6.97435	7.05304	7.13043
0.0010	7.72024	7.82954	7.93744	8.04395	8.14910	8.25289	8.35534
0.0005	8.80779	8.94335	9.07750	9.21023	9.34158	9.47154	9.60013
0.0001	11.37334	11.57284	11.77092	11.96757	12.16280	12.35663	12.54906

P	G = 4.2	G = 4.3	G = 4.4	G = 4.5	G = 4.6	G = 4.7	G = 4.8
0.9999	-0.47619	-0.46512	-0.45455	-0.44444	-0.43478	-0.42553	-0.41667
0.9995	-0.47619	-0.46512	-0.45455	-0.44444	-0.43478	-0.42553	-0.41667
0.9990	-0.47619	-0.46512	-0.45455	-0.44444	-0.43478	-0.42553	-0.41667
0.9980	-0.47619	-0.46512	-0.45455	-0.44444	-0.43478	-0.42553	-0.41667
0.9950	-0.47619	-0.46512	-0.45455	-0.44444	-0.43478	-0.42553	-0.41667
0.9900	-0.47619	-0.46512	-0.45455	-0.44444	-0.43478	-0.42553	-0.41667
0.9800	-0.47619	-0.46512	-0.45455	-0.44444	-0.43478	-0.42553	-0.41667
0.9750	-0.47619	-0.46512	-0.45455	-0.44444	-0.43478	-0.42553	-0.41667
0.9600	-0.47619	-0.46512	-0.45455	-0.44444	-0.43478	-0.42553	-0.41667
0.9500	-0.47619	-0.46511	-0.45454	-0.44444	-0.43478	-0.42553	-0.41667
0.9000	-0.47614	-0.46508	-0.45452	-0.44443	-0.43477	-0.42553	-0.41666
0.8000	-0.47504	-0.46428	-0.45395	-0.44402	-0.43448	-0.42532	-0.41652
0.7000	-0.46927	-0.45967	-0.45029	-0.44114	-0.43223	-0.42357	-0.41517
0.6000	-0.45142	-0.44442	-0.43734	-0.43020	-0.42304	-0.41590	-0.40880
0.5704	-0.44212	-0.43623	-0.43016	-0.42394	-0.41761	-0.41121	-0.40477
0.5000	-0.40881	-0.40621	-0.40321	-0.39985	-0.39617	-0.39221	-0.38800
0.4296	-0.35318	-0.35473	-0.35572	-0.35619	-0.35616	-0.35567	-0.35475
0.4000	-0.32049	-0.32400	-0.32693	-0.32928	-0.33108	-0.33236	-0.33315
0.3000	-0.14861	-0.15939	-0.16958	-0.17918	-0.18819	-0.19661	-0.20446
0.2000	0.18967	0.17189	0.15445	0.13737	0.12067	0.10436	0.08847
0.1000	0.96090	0.94064	0.92022	0.89964	0.87895	0.85817	0.83731
0.0500	1.89508	1.88160	1.86757	1.85300	1.83792	1.82234	1.80631
0.0400	2.22024	2.21039	2.19988	2.18874	2.17699	2.16465	2.15174
0.0250	2.93489	2.93443	2.93314	2.93105	2.92818	2.92455	2.92017
0.0200	3.28622	3.29092	3.29473	3.29767	3.29976	3.30103	3.30149
0.0100	4.41706	4.44009	4.46207	4.48303	4.50297	4.52192	4.53990
0.0050	5.59528	5.63934	5.68224	5.72400	5.76464	5.80418	5.84265
0.0020	7.20654	7.28138	7.35497	7.42733	7.49847	7.56842	7.63718
0.0010	8.45646	8.55627	8.65479	8.75202	8.84800	8.94273	9.03623
0.0005	9.72737	9.85326	9.97784	10.10110	10.22307	10.34375	10.46318
0.0001	12.74010	12.92977	13.11808	13.30504	13.49066	13.67495	13.85794

P	G = 4.9	G = 5.0	G = 5.1	G = 5.2	G = 5.3	G = 5.4	G = 5.5
0.9999	-0.40816	-0.40000	-0.39216	-0.38462	-0.37736	-0.37037	-0.36364
0.9995	-0.40816	-0.40000	-0.39216	-0.38462	-0.37736	-0.37037	-0.36364
0.9990	-0.40816	-0.40000	-0.39216	-0.38462	-0.37736	-0.37037	-0.36364
0.9980	-0.40816	-0.40000	-0.39216	-0.38462	-0.37736	-0.37037	-0.36364
0.9950	-0.40816	-0.40000	-0.39216	-0.38462	-0.37736	-0.37037	-0.36364
0.9900	-0.40816	-0.40000	-0.39216	-0.38462	-0.37736	-0.37037	-0.36364
0.9800	-0.40816	-0.40000	-0.39216	-0.38462	-0.37736	-0.37037	-0.36364
0.9750	-0.40816	-0.40000	-0.39216	-0.38462	-0.37736	-0.37037	-0.36364
0.9600	-0.40816	-0.40000	-0.39216	-0.38462	-0.37736	-0.37037	-0.36364
0.9500	-0.40816	-0.40000	-0.39216	-0.38462	-0.37736	-0.37037	-0.36364
0.9000	-0.40816	-0.40000	-0.39216	-0.38462	-0.37736	-0.37037	-0.36364
0.8000	-0.40806	-0.39993	-0.39211	-0.38458	-0.37734	-0.37036	-0.36363
0.7000	-0.40703	-0.39914	-0.39152	-0.38414	-0.37701	-0.37011	-0.36345
0.6000	-0.40177	-0.39482	-0.38799	-0.38127	-0.37469	-0.36825	-0.36196
0.5704	-0.39833	-0.39190	-0.38552	-0.37919	-0.37295	-0.36680	-0.36076
0.5000	-0.38359	-0.37901	-0.37428	-0.36945	-0.36453	-0.35956	-0.35456
0.4296	-0.35343	-0.35174	-0.34972	-0.34740	-0.34481	-0.34198	-0.33895
0.4000	-0.33347	-0.33336	-0.33284	-0.33194	-0.33070	-0.32914	-0.32729
0.3000	-0.21172	-0.21843	-0.22458	-0.23019	-0.23527	-0.23984	-0.24391
0.2000	0.07300	0.05798	0.04340	0.02927	0.01561	0.00243	-0.01028
0.1000	0.81641	0.79548	0.77455	0.75364	0.73277	0.71195	0.69122
0.0500	1.78982	1.77292	1.75563	1.73795	1.71992	1.70155	1.68287
0.0400	2.13829	2.12432	2.10985	2.09490	2.07950	2.06365	2.04739
0.0250	2.91508	2.90930	2.90283	2.89572	2.88796	2.87959	2.87062
0.0200	3.30116	3.30007	3.29823	3.29567	3.29240	3.28844	3.28381
0.0100	4.55694	4.57304	4.58823	4.60252	4.61594	4.62850	4.64022
0.0050	5.88004	5.91639	5.95171	5.98602	6.01934	6.05169	6.08307
0.0020	7.70479	7.77124	7.83657	7.90078	7.96390	8.02594	8.08691
0.0010	9.12852	9.21961	9.30952	9.39827	9.48586	9.57232	9.65766
0.0005	10.58135	10.69829	10.81401	10.92853	11.04186	11.15402	11.26502
0.0001	14.03963	14.22004	14.39918	14.57706	14.75370	14.92912	15.10332

P	G = 5.6	G = 5.7	G = 5.8	G = 5.9	G = 6.0	G = 6.1	G = 6.2
0.9999	-0.35714	-0.35088	-0.34483	-0.33898	-0.33333	-0.32787	-0.32258
0.9995	-0.35714	-0.35088	-0.34483	-0.33898	-0.33333	-0.32787	-0.32258
0.9990	-0.35714	-0.35088	-0.34483	-0.33898	-0.33333	-0.32787	-0.32258
0.9980	-0.35714	-0.35088	-0.34483	-0.33898	-0.33333	-0.32787	-0.32258
0.9950	-0.35714	-0.35088	-0.34483	-0.33898	-0.33333	-0.32787	-0.32258
0.9900	-0.35714	-0.35088	-0.34483	-0.33898	-0.33333	-0.32787	-0.32258
0.9800	-0.35714	-0.35088	-0.34483	-0.33898	-0.33333	-0.32787	-0.32258
0.9750	-0.35714	-0.35088	-0.34483	-0.33898	-0.33333	-0.32787	-0.32258
0.9600	-0.35714	-0.35088	-0.34483	-0.33898	-0.33333	-0.32787	-0.32258
0.9500	-0.35714	-0.35088	-0.34483	-0.33898	-0.33333	-0.32787	-0.32258
0.9000	-0.35714	-0.35088	-0.34483	-0.33898	-0.33333	-0.32787	-0.32258
0.8000	-0.35714	-0.35087	-0.34483	-0.33898	-0.33333	-0.32787	-0.32258
0.7000	-0.35700	-0.35078	-0.34476	-0.33893	-0.33330	-0.32784	-0.32256
0.6000	-0.35583	-0.34985	-0.34402	-0.33836	-0.33285	-0.32750	-0.32230
0.5704	-0.35484	-0.34903	-0.34336	-0.33782	-0.33242	-0.32715	-0.32202
0.5000	-0.34955	-0.34455	-0.33957	-0.33463	-0.32974	-0.32492	-0.32016
0.4296	-0.33573	-0.33236	-0.32886	-0.32525	-0.32155	-0.31780	-0.31399
0.4000	-0.32519	-0.32285	-0.32031	-0.31759	-0.31472	-0.31171	-0.30859
0.3000	-0.24751	-0.25064	-0.25334	-0.25562	-0.25750	-0.25901	-0.26015
0.2000	-0.02252	-0.03427	-0.04553	-0.05632	-0.06662	-0.07645	-0.08580
0.1000	0.67058	0.65006	0.62966	0.60941	0.58933	0.56942	0.54970
0.0500	1.66390	1.64464	1.62513	1.60538	1.58541	1.56524	1.54487
0.0400	2.03073	2.01369	1.99629	1.97855	1.96048	1.94210	1.92343
0.0250	2.86107	2.85096	2.84030	2.82912	2.81743	2.80525	2.79259
0.0200	3.27854	3.27263	3.26610	3.25898	3.25128	3.24301	3.23419
0.0100	4.65111	4.66120	4.67050	4.67903	4.68680	4.69382	4.70013
0.0050	6.11351	6.14302	6.17162	6.19933	6.22616	6.25212	6.27723
0.0020	8.14683	8.20572	8.26359	8.32046	8.37634	8.43125	8.48519
0.0010	9.74190	9.82505	9.90713	9.98815	10.06812	10.14706	10.22499
0.0005	11.37487	11.48360	11.59122	11.69773	11.80316	11.90752	12.01082
0.0001	15.27632	15.44813	15.61878	15.78826	15.95660	16.12380	16.28989

P	G = 6.3	G = 6.4	G = 6.5	G = 6.6	G = 6.7	G = 6.8	G = 6.9
0.9999	-0.31746	-0.31250	-0.30769	-0.30303	-0.29851	-0.29412	-0.28986
0.9995	-0.31746	-0.31250	-0.30769	-0.30303	-0.29851	-0.29412	-0.28986
0.9990	-0.31746	-0.31250	-0.30769	-0.30303	-0.29851	-0.29412	-0.28986
0.9980	-0.31746	-0.31250	-0.30769	-0.30303	-0.29851	-0.29412	-0.28986
0.9950	-0.31746	-0.31250	-0.30769	-0.30303	-0.29851	-0.29412	-0.28986
0.9900	-0.31746	-0.31250	-0.30769	-0.30303	-0.29851	-0.29412	-0.28986
0.9800	-0.31746	-0.31250	-0.30769	-0.30303	-0.29851	-0.29412	-0.28986
0.9750	-0.31746	-0.31250	-0.30769	-0.30303	-0.29851	-0.29412	-0.28986
0.9600	-0.31746	-0.31250	-0.30769	-0.30303	-0.29851	-0.29412	-0.28986
0.9500	-0.31746	-0.31250	-0.30769	-0.30303	-0.29851	-0.29412	-0.28986
0.9000	-0.31746	-0.31250	-0.30769	-0.30303	-0.29851	-0.29412	-0.28986
0.8000	-0.31746	-0.31250	-0.30769	-0.30303	-0.29851	-0.29412	-0.28986
0.7000	-0.31745	-0.31249	-0.30769	-0.30303	-0.29850	-0.29412	-0.28985
0.6000	-0.31724	-0.31234	-0.30769	-0.30294	-0.29844	-0.29407	-0.28982
0.5704	-0.31702	-0.31216	-0.30743	-0.30283	-0.29835	-0.29400	-0.28977
0.5000	-0.31549	-0.31090	-0.30639	-0.30198	-0.29766	-0.29344	-0.28931
0.4296	-0.31016	-0.30631	-0.30246	-0.29862	-0.29480	-0.29101	-0.28726
0.4000	-0.30538	-0.30209	-0.29875	-0.29537	-0.29196	-0.28854	-0.28511
0.3000	-0.26097	-0.26146	-0.26167	-0.26160	-0.26128	-0.26072	-0.25995
0.2000	-0.09469	-0.10311	-0.11107	-0.11859	-0.12566	-0.13231	-0.13853
0.1000	0.53019	0.51089	0.49182	0.47299	0.45440	0.43608	0.41803
0.0500	1.52434	1.50365	1.48281	1.46186	1.44079	1.41963	1.39839
0.0400	1.90449	1.88528	1.86584	1.84616	1.82627	1.80618	1.78591
0.0250	2.77947	2.76591	2.75191	2.73751	2.72270	2.70751	2.69195
0.0200	3.22484	3.21497	3.20460	3.19374	3.18241	3.17062	3.15838
0.0100	4.70571	4.71061	4.71482	4.71836	4.72125	4.72350	4.72512
0.0050	6.30151	6.32497	6.34762	6.36948	6.39055	6.41086	6.43042
0.0020	8.53820	8.59027	8.64142	8.69167	8.74102	8.78950	8.83711
0.0010	10.30192	10.37785	10.45281	10.52681	10.59986	10.67197	10.74316
0.0005	12.11307	12.21429	12.31450	12.41370	12.51190	12.60913	12.70539
0.0001	16.45487	16.61875	16.78156	16.94329	17.10397	17.26361	17.42221

P	G = 7.0	G = 7.1	G = 7.2	G = 7.3	G = 7.4	G = 7.5	G = 7.6
0.9999	-0.28571	-0.28169	-0.27778	-0.27397	-0.27027	-0.26667	-0.26316
0.9995	-0.28571	-0.28169	-0.27778	-0.27397	-0.27027	-0.26667	-0.26316
0.9990	-0.28571	-0.28169	-0.27778	-0.27397	-0.27027	-0.26667	-0.26316
0.9980	-0.28571	-0.28169	-0.27778	-0.27397	-0.27027	-0.26667	-0.26316
0.9950	-0.28571	-0.28169	-0.27778	-0.27397	-0.27027	-0.26667	-0.26316
0.9900	-0.28571	-0.28169	-0.27778	-0.27397	-0.27027	-0.26667	-0.26316
0.9800	-0.28571	-0.28169	-0.27778	-0.27397	-0.27027	-0.26667	-0.26316
0.9750	-0.28571	-0.28169	-0.27778	-0.27397	-0.27027	-0.26667	-0.26316
0.9600	-0.28571	-0.28169	-0.27778	-0.27397	-0.27027	-0.26667	-0.26316
0.9500	-0.28571	-0.28169	-0.27778	-0.27397	-0.27027	-0.26667	-0.26316
0.9000	-0.28571	-0.28169	-0.27778	-0.27397	-0.27027	-0.26667	-0.26316
0.8000	-0.28571	-0.28169	-0.27778	-0.27397	-0.27027	-0.26667	-0.26316
0.7000	-0.28571	-0.28169	-0.27778	-0.27397	-0.27027	-0.26667	-0.26316
0.6000	-0.28569	-0.28167	-0.27776	-0.27396	-0.27026	-0.26666	-0.26315
0.5704	-0.28565	-0.28164	-0.27774	-0.27394	-0.27025	-0.26665	-0.26315
0.5000	-0.28528	-0.28135	-0.27751	-0.27376	-0.27010	-0.26654	-0.26306
0.4296	-0.28355	-0.27990	-0.27629	-0.27274	-0.26926	-0.26584	-0.26248
0.4000	-0.28169	-0.27829	-0.27491	-0.27156	-0.26825	-0.26497	-0.26175
0.3000	-0.25899	-0.25785	-0.25654	-0.25510	-0.25352	-0.25183	-0.25005
0.2000	-0.14434	-0.14975	-0.15478	-0.15942	-0.16371	-0.16764	-0.17123
0.1000	0.40026	0.38277	0.36557	0.34868	0.33209	0.31582	0.29986
0.0500	1.37708	1.35571	1.33430	1.31287	1.29141	1.26995	1.24850
0.0400	1.76547	1.74487	1.72412	1.70325	1.68225	1.66115	1.63995
0.0250	2.67603	2.65977	2.64317	2.62626	2.60905	2.59154	2.57375
0.0200	3.14572	3.13263	3.11914	3.10525	3.09099	3.07636	3.06137
0.0100	4.72613	4.72653	4.72635	4.72559	4.72427	4.72240	4.71998
0.0050	6.44924	6.46733	6.48470	6.50137	6.51735	6.53264	6.54727
0.0020	8.88387	8.92979	8.97488	9.01915	9.06261	9.10528	9.14717
0.0010	10.81343	10.88281	10.95129	11.01890	11.08565	11.15154	11.21658
0.0005	12.80069	12.89505	12.98848	13.08098	13.17258	13.26328	13.35309
0.0001	17.57979	17.73636	17.89193	18.04652	18.20013	18.35278	18.50447

P	G = 7.7	G = 7.8	G = 7.9	G = 8.0	G = 8.1	G = 8.2	G = 8.3
0.9999	-0.25974	-0.25641	-0.25316	-0.25000	-0.24691	-0.24390	-0.24096
0.9995	-0.25974	-0.25641	-0.25316	-0.25000	-0.24691	-0.24390	-0.24096
0.9990	-0.25974	-0.25641	-0.25316	-0.25000	-0.24691	-0.24390	-0.24096
0.9980	-0.25974	-0.25641	-0.25316	-0.25000	-0.24691	-0.24390	-0.24096
0.9950	-0.25974	-0.25641	-0.25316	-0.25000	-0.24691	-0.24390	-0.24096
0.9900	-0.25974	-0.25641	-0.25316	-0.25000	-0.24691	-0.24390	-0.24096
0.9800	-0.25974	-0.25641	-0.25316	-0.25000	-0.24691	-0.24390	-0.24096
0.9750	-0.25974	-0.25641	-0.25316	-0.25000	-0.24691	-0.24390	-0.24096
0.9600	-0.25974	-0.25641	-0.25316	-0.25000	-0.24691	-0.24390	-0.24096
0.9500	-0.25974	-0.25641	-0.25316	-0.25000	-0.24691	-0.24390	-0.24096
0.9000	-0.25974	-0.25641	-0.25316	-0.25000	-0.24691	-0.24390	-0.24096
0.8000	-0.25974	-0.25641	-0.25316	-0.25000	-0.24691	-0.24390	-0.24096
0.7000	-0.25974	-0.25641	-0.25316	-0.25000	-0.24691	-0.24390	-0.24096
0.6000	-0.25974	-0.25641	-0.25316	-0.25000	-0.24691	-0.24390	-0.24096
0.5704	-0.25973	-0.25640	-0.25316	-0.25000	-0.24691	-0.24390	-0.24096
0.5000	-0.25966	-0.25635	-0.25312	-0.24996	-0.24689	-0.24388	-0.24095
0.4296	-0.25919	-0.25596	-0.25280	-0.24970	-0.24667	-0.24371	-0.24081
0.4000	-0.25857	-0.25544	-0.25236	-0.24933	-0.24637	-0.24345	-0.24060
0.3000	-0.24817	-0.24622	-0.24421	-0.24214	-0.24003	-0.23788	-0.23571
0.2000	-0.17450	-0.17746	-0.18012	-0.18249	-0.18459	-0.18643	-0.18803
0.1000	0.28422	0.26892	0.25394	0.23929	0.22498	0.21101	0.19737
0.0500	1.22706	1.20565	1.18427	1.16295	1.14168	1.12048	1.09936
0.0400	1.61867	1.59732	1.57591	1.55444	1.53294	1.51141	1.48985
0.0250	2.55569	2.53737	2.51881	2.50001	2.48099	2.46175	2.44231
0.0200	3.04604	3.03038	3.01439	2.99810	2.98150	2.96462	2.94746
0.0100	4.71704	4.71358	4.70961	4.70514	4.70019	4.69476	4.68887
0.0050	6.56124	6.57456	6.58725	6.59931	6.61075	6.62159	6.63183
0.0020	9.18828	9.22863	9.26823	9.30709	9.34521	9.38262	9.41931
0.0010	11.28080	11.34419	11.40677	11.46855	11.52953	11.58974	11.64917
0.0005	13.44202	13.53009	13.61730	13.70366	13.78919	13.87389	13.95778
0.0001	18.65522	18.80504	18.95393	19.10191	19.24898	19.39517	19.54046

P	G = 8.4	G = 8.5	G = 8.6	G = 8.7	G = 8.8	G = 8.9	G = 9.0
0.9999	-0.23810	-0.23529	-0.23256	-0.22989	-0.22727	-0.22472	-0.22222
0.9995	-0.23810	-0.23529	-0.23256	-0.22989	-0.22727	-0.22472	-0.22222
0.9990	-0.23810	-0.23529	-0.23256	-0.22989	-0.22727	-0.22472	-0.22222
0.9980	-0.23810	-0.23529	-0.23256	-0.22989	-0.22727	-0.22472	-0.22222
0.9950	-0.23810	-0.23529	-0.23256	-0.22989	-0.22727	-0.22472	-0.22222
0.9900	-0.23810	-0.23529	-0.23256	-0.22989	-0.22727	-0.22472	-0.22222
0.9800	-0.23810	-0.23529	-0.23256	-0.22989	-0.22727	-0.22472	-0.22222
0.9750	-0.23810	-0.23529	-0.23256	-0.22989	-0.22727	-0.22472	-0.22222
0.9600	-0.23810	-0.23529	-0.23256	-0.22989	-0.22727	-0.22472	-0.22222
0.9500	-0.23810	-0.23529	-0.23256	-0.22989	-0.22727	-0.22472	-0.22222
0.9000	-0.23810	-0.23529	-0.23256	-0.22989	-0.22727	-0.22472	-0.22222
0.8000	-0.23810	-0.23529	-0.23256	-0.22989	-0.22727	-0.22472	-0.22222
0.7000	-0.23810	-0.23529	-0.23256	-0.22989	-0.22727	-0.22472	-0.22222
0.6000	-0.23810	-0.23529	-0.23256	-0.22989	-0.22727	-0.22472	-0.22222
0.5704	-0.23809	-0.23529	-0.23256	-0.22989	-0.22727	-0.22472	-0.22222
0.5000	-0.23808	-0.23528	-0.23255	-0.22988	-0.22727	-0.22472	-0.22222
0.4296	-0.23797	-0.23520	-0.23248	-0.22982	-0.22722	-0.22468	-0.22219
0.4000	-0.23779	-0.23505	-0.23236	-0.22972	-0.22714	-0.22461	-0.22214
0.3000	-0.23352	-0.23132	-0.22911	-0.22690	-0.22469	-0.22249	-0.22030
0.2000	-0.18939	-0.19054	-0.19147	-0.19221	-0.19277	-0.19316	-0.19338
0.1000	0.18408	0.17113	0.15851	0.14624	0.13431	0.12272	0.11146
0.0500	1.07832	1.05738	1.03654	1.01581	0.99519	0.97471	0.95435
0.0400	1.46829	1.44673	1.42518	1.40364	1.38213	1.36065	1.33922
0.0250	2.42268	2.40287	2.38288	2.36273	2.34242	2.32197	2.30138
0.0200	2.93002	2.91234	2.89440	2.87622	2.85782	2.83919	2.82035
0.0100	4.68252	4.67573	4.66850	4.66085	4.65277	4.64429	4.63541
0.0050	6.64148	6.65056	6.65907	6.66703	6.67443	6.68130	6.68763
0.0020	9.45530	9.49060	9.52521	9.55915	9.59243	9.62504	9.65701
0.0010	11.70785	11.76576	11.82294	11.87938	11.93509	11.99009	12.04437
0.0005	14.04086	14.12314	14.20463	14.28534	14.36528	14.44446	14.52288
0.0001	19.68489	19.82845	19.97115	20.11300	20.25402	20.39420	20.53356

P	G = -0.0	G = -0.1	G = -0.2	G = -0.3	G = -0.4	G = -0.5	G = -0.6
0.9999	-3.71902	-3.93453	-4.15301	-4.37394	-4.59687	-4.82141	-5.04718
0.9995	-3.29053	-3.45513	-3.62113	-3.78820	-3.95605	-4.12443	-4.29311
0.9990	-3.09023	-3.23322	-3.37703	-3.52139	-3.66608	-3.81090	-3.95567
0.9980	-2.87816	-2.99978	-3.12169	-3.24371	-3.36566	-3.48737	-3.60872
0.9950	-2.57583	-2.66965	-2.76321	-2.85636	-2.94900	-3.04102	-3.13232
0.9900	-2.32636	-2.39961	-2.47226	-2.54421	-2.61539	-2.68572	-2.75514
0.9800	-2.05375	-2.10697	-2.15935	-2.21081	-2.26133	-2.31084	-2.35931
0.9750	-1.95996	-2.00688	-2.05290	-2.09795	-2.14202	-2.18505	-2.22702
0.9600	-1.75069	-1.78462	-1.81756	-1.84949	-1.88039	-1.91022	-1.93896
0.9500	-1.64485	-1.67279	-1.69971	-1.72562	-1.75048	-1.77428	-1.79701
0.9000	-1.28155	-1.29178	-1.30105	-1.30936	-1.31671	-1.32309	-1.32850
0.8000	-0.84162	-0.83639	-0.83044	-0.82377	-0.81638	-0.80829	-0.79950
0.7000	-0.52440	-0.51207	-0.49927	-0.48600	-0.47228	-0.45812	-0.44352
0.6000	-0.25335	-0.23763	-0.22168	-0.20552	-0.18916	-0.17261	-0.15589
0.5704	-0.17733	-0.16111	-0.14472	-0.12820	-0.11154	-0.09478	-0.07791
0.5000	0.0	0.01662	0.03325	0.04993	0.06651	0.08302	0.09945
0.4296	0.17733	0.19339	0.20925	0.22492	0.24037	0.25558	0.27047
0.4000	0.25335	0.26882	0.28403	0.29897	0.31362	0.32796	0.34198
0.3000	0.52440	0.53624	0.54757	0.55839	0.56867	0.57840	0.58757
0.2000	0.84162	0.84611	0.84986	0.85285	0.85508	0.85653	0.85718
0.1000	1.28155	1.27037	1.25824	1.24516	1.23114	1.21618	1.20028
0.0500	1.64485	1.61594	1.58607	1.55527	1.52357	1.49101	1.45762
0.0400	1.75069	1.71580	1.67999	1.64329	1.60574	1.56740	1.52830
0.0250	1.95996	1.91219	1.86360	1.81427	1.76427	1.71366	1.66253
0.0200	2.05375	1.99973	1.94499	1.88959	1.83361	1.77716	1.72033
0.0100	2.32635	2.25258	2.17840	2.10394	2.02933	1.95472	1.88029
0.0050	2.57583	2.48187	2.38795	2.29423	2.20092	2.10825	2.01644
0.0020	2.87816	2.75706	2.63672	2.51741	2.39942	2.28311	2.16884
0.0010	3.09023	2.94834	2.80786	2.66915	2.53261	2.39867	2.26780
0.0005	3.29053	3.12767	2.96698	2.80889	2.65390	2.50257	2.35549
0.0001	3.71002	3.50703	3.29921	3.09631	2.89907	2.70836	2.52507

P	Gl=-0.7	Gl=-0.8	Gl=-0.9	Gl=-1.0	Gl=-1.1	Gl=-1.2	Gl=-1.3
0.9999	-5.27389	-5.50124	-5.72899	-5.95691	-6.18480	-6.41249	-6.63980
0.9995	-4.46189	-4.63057	-4.79899	-4.96701	-5.13449	-5.30130	-5.46735
0.9990	-4.10022	-4.24439	-4.38807	-4.53112	-4.67344	-4.81492	-4.95549
0.9980	-3.72957	-3.84981	-3.96932	-4.08802	-4.20582	-4.32263	-4.43839
0.9950	-3.22281	-3.31243	-3.40109	-3.48874	-3.57530	-3.66073	-3.74497
0.9900	-2.82359	-2.89101	-2.95735	-3.02256	-3.08660	-3.14944	-3.21103
0.9800	-2.40670	-2.45298	-2.49811	-2.54205	-2.58480	-2.62631	-2.66657
0.9750	-2.26790	-2.30764	-2.34623	-2.38364	-2.41984	-2.45482	-2.48855
0.9600	-1.96660	-1.99311	-2.01848	-2.04269	-2.06573	-2.08758	-2.10823
0.9500	-1.81864	-1.83916	-1.85856	-1.87683	-1.89395	-1.90992	-1.92472
0.9000	-1.33294	-1.33640	-1.33889	-1.34039	-1.34092	-1.34047	-1.33904
0.8000	-0.79002	-0.77986	-0.76902	-0.75752	-0.74537	-0.73257	-0.71915
0.7000	-0.42951	-0.41309	-0.39729	-0.38111	-0.36458	-0.34772	-0.33054
0.6000	-0.13901	-0.12199	-0.10486	-0.08763	-0.07032	-0.05297	-0.03560
0.5704	-0.06097	-0.04397	-0.02693	-0.00987	0.00719	0.02421	0.04116
0.5000	0.11578	0.13199	0.14807	0.16397	0.17968	0.19517	0.21040
0.4296	0.28516	0.29961	0.31368	0.32740	0.34075	0.35370	0.36620
0.4000	0.35565	0.36889	0.38186	0.39434	0.40638	0.41794	0.42899
0.3000	0.59615	0.60412	0.61146	0.61815	0.62415	0.62944	0.63400
0.2000	0.85703	0.85607	0.85426	0.85161	0.84809	0.84369	0.83841
0.1000	1.18347	1.16574	1.14712	1.12762	1.10726	1.08608	1.06413
0.0500	1.42345	1.38855	1.35299	1.31684	1.28019	1.24313	1.20578
0.0400	1.48852	1.44813	1.40720	1.36584	1.32414	1.28225	1.24024
0.0250	1.61099	1.55914	1.50712	1.45507	1.40314	1.35153	1.30042
0.0200	1.66325	1.60604	1.54886	1.49188	1.43529	1.37929	1.32412
0.0100	1.80621	1.73271	1.66001	1.58838	1.51808	1.44942	1.38267
0.0050	1.92590	1.83660	1.74919	1.66390	1.58110	1.50114	1.42439
0.0020	2.05701	1.94806	1.84244	1.74062	1.64305	1.55016	1.46232
0.0010	2.14053	2.01739	1.89894	1.78572	1.67825	1.57695	1.48216
0.0005	2.21328	2.07661	1.94611	1.82241	1.70603	1.59738	1.49673
0.0001	2.35015	2.18448	2.02891	1.88410	1.75053	1.62838	1.51752

σ	$G = -1.4$	$G = -1.5$	$G = -1.6$	$G = -1.7$	$G = -1.8$	$G = -1.9$	$G = -2.0$
0.9999	-6.86661	-7.09277	-7.31818	-7.54272	-7.76632	-7.98888	-8.21034
0.9995	-5.63252	-5.79673	-5.95990	-6.12196	-6.28285	-6.44251	-6.60090
0.9990	-5.09505	-5.23353	-5.37087	-5.50701	-5.64190	-5.77549	-5.90776
0.9980	-4.55304	-4.66651	-4.77875	-4.88971	-4.99937	-5.10768	-5.21461
0.9950	-3.82798	-3.90973	-3.99016	-4.06926	-4.14700	-4.22336	-4.29832
0.9900	-3.27134	-3.33035	-3.38804	-3.44438	-3.49935	-3.55295	-3.60517
0.9800	-2.70556	-2.74325	-2.77964	-2.81472	-2.84848	-2.88091	-2.91202
0.9750	-2.52102	-2.55222	-2.58214	-2.61076	-2.63810	-2.66413	-2.68888
0.9600	-2.12768	-2.14591	-2.16293	-2.17873	-2.19332	-2.20670	-2.21888
0.9500	-1.93836	-1.95083	-1.96213	-1.97227	-1.98124	-1.98906	-1.99573
0.9000	-1.33665	-1.33330	-1.32900	-1.32376	-1.31760	-1.31054	-1.30259
0.8000	-0.70512	-0.69050	-0.67532	-0.65959	-0.64335	-0.62662	-0.60944
0.7000	-0.31307	-0.29535	-0.27740	-0.25925	-0.24094	-0.22250	-0.20397
0.6000	-0.01824	-0.00092	0.01631	0.03344	0.05040	0.06718	0.08371
0.5704	0.05803	0.07476	0.09132	0.10769	0.12381	0.13964	0.15516
0.5000	0.22535	0.23996	0.25422	0.26808	0.28150	0.29443	0.30685
0.4296	0.37824	0.38977	0.40075	0.41116	0.42095	0.43008	0.43854
0.4000	0.43949	0.44942	0.45873	0.46739	0.47538	0.48265	0.48917
0.3000	0.63779	0.64080	0.64300	0.64436	0.64488	0.64453	0.64333
0.2000	0.83223	0.82516	0.81720	0.80837	0.79868	0.78816	0.77686
0.1000	1.04144	1.01810	0.99418	0.96977	0.94496	0.91988	0.89464
0.0500	1.16827	1.13075	1.09388	1.05631	1.01973	0.98381	0.94871
0.0400	1.19842	1.15682	1.11566	1.07513	1.03543	0.99672	0.95918
0.0250	1.25004	1.20059	1.15229	1.10537	1.06001	1.01640	0.97468
0.0200	1.26999	1.21716	1.16584	1.11628	1.06864	1.02311	0.97980
0.0100	1.31815	1.25611	1.19680	1.14042	1.08711	1.03695	0.98995
0.0050	1.35114	1.28167	1.21618	1.15477	1.09749	1.04427	0.99499
0.0020	1.37981	1.30279	1.23132	1.16534	1.10465	1.04898	0.99800
0.0010	1.39408	1.31275	1.23805	1.16974	1.10743	1.05068	0.99900
0.0005	1.40413	1.31944	1.24235	1.17240	1.10901	1.05159	0.99950
0.0001	1.41753	1.32774	1.24728	1.17520	1.11054	1.05239	0.99990

P	G = -2.1	G = -2.2	G = -2.3	G = -2.4	G = -2.5	G = -2.6	G1 = -2.7
0.9999	-8.43064	-8.64971	-8.86753	-9.08403	-9.29920	-9.51301	-9.72543
0.9995	-6.75798	-6.91370	-7.06804	-7.22098	-7.37250	-7.52258	-7.67121
0.9990	-6.03865	-6.16816	-6.29626	-6.42292	-6.54814	-6.67191	-6.79421
0.9980	-5.32014	-5.42426	-5.52694	-5.62818	-5.72796	-5.82629	-5.92316
0.9950	-4.37186	-4.44398	-4.51467	-4.58393	-4.65176	-4.71815	-4.78313
0.9900	-3.65600	-3.70543	-3.75347	-3.80013	-3.84540	-3.88930	-3.93183
0.9800	-2.94181	-2.97028	-2.99744	-3.02330	-3.04787	-3.07116	-3.09320
0.9750	-2.71234	-2.73451	-2.75541	-2.77506	-2.79345	-2.81062	-2.82658
0.9600	-2.22986	-2.23967	-2.24831	-2.25581	-2.26217	-2.26743	-2.27160
0.9500	-2.00128	-2.00570	-2.00903	-2.01128	-2.01247	-2.01263	-2.01177
0.9000	-1.29377	-1.28412	-1.27365	-1.26240	-1.25039	-1.23766	-1.22422
0.8000	-0.59183	-0.57383	-0.55549	-0.53683	-0.51789	-0.49872	-0.47934
0.7000	-0.18540	-0.16682	-0.14827	-0.12979	-0.11143	-0.09323	-0.07523
0.6000	0.09997	0.11590	0.13148	0.14665	0.16138	0.17564	0.18939
0.5704	0.17030	0.18504	0.19933	0.21313	0.22642	0.23915	0.25129
0.5000	0.31872	0.32999	0.34063	0.35062	0.35992	0.36852	0.37640
0.4296	0.44628	0.45329	0.45953	0.46499	0.46966	0.47353	0.47660
0.4000	0.49494	0.49991	0.50409	0.50744	0.50999	0.51171	0.51263
0.3000	0.64125	0.63833	0.63456	0.62999	0.62463	0.61854	0.61176
0.2000	0.76482	0.75211	0.73880	0.72495	0.71067	0.69602	0.68111
0.1000	0.86938	0.84422	0.81929	0.79472	0.77062	0.74709	0.72422
0.0500	0.91458	0.88156	0.84976	0.81927	0.79015	0.76242	0.73610
0.0400	0.92295	0.88814	0.85486	0.82315	0.79306	0.76456	0.73765
0.0250	0.93495	0.89728	0.86169	0.82817	0.79667	0.76712	0.73943
0.0200	0.93878	0.90009	0.86371	0.82959	0.79765	0.76779	0.73987
0.0100	0.94607	0.90521	0.86723	0.83196	0.79921	0.76878	0.74049
0.0050	0.94945	0.90742	0.86863	0.83283	0.79973	0.76909	0.74067
0.0020	0.95131	0.90854	0.86929	0.83320	0.79994	0.76920	0.74073
0.0010	0.95188	0.90885	0.86945	0.83328	0.79998	0.76922	0.74074
0.0005	0.95215	0.90899	0.86952	0.83331	0.79999	0.76923	0.74074
0.0001	0.95234	0.90908	0.86956	0.83333	0.80000	0.76923	0.74074

P	G = -2.8	G = -2.9	G = -3.0	G = -3.1	G = -3.2	G = -3.3	G1 = -3.4
0.9999	-9.93643	-10.14602	-10.35418	-10.56090	-10.76618	-10.97001	-11.17239
0.9995	-7.81839	-7.96411	-8.10836	-8.25115	-8.39248	-8.53236	-8.67079
0.9990	-6.91505	-7.03443	-7.15235	-7.26881	-7.38382	-7.49739	-7.60953
0.9980	-6.01858	-6.11254	-6.20506	-6.29613	-6.38578	-6.47401	-6.56084
0.9950	-4.84669	-4.90884	-4.96959	-5.02897	-5.08697	-5.14362	-5.19892
0.9900	-3.97301	-4.01286	-4.05138	-4.08859	-4.12452	-4.15917	-4.19257
0.9800	-3.11399	-3.13356	-3.15193	-3.16911	-3.18512	-3.20000	-3.21375
0.9750	-2.84134	-2.85492	-2.86735	-2.87865	-2.88884	-2.89795	-2.90599
0.9600	-2.27470	-2.27676	-2.27780	-2.27785	-2.27693	-2.27506	-2.27229
0.9500	-2.00992	-2.00710	-2.00335	-1.99869	-1.99314	-1.98674	-1.97951
0.9000	-1.21013	-1.19539	-1.18006	-1.16416	-1.14772	-1.13078	-1.11337
0.8000	-0.45980	-0.44015	-0.42040	-0.40061	-0.38081	-0.36104	-0.34133
0.7000	-0.05746	-0.03997	-0.02279	-0.00596	0.01050	0.02654	0.04215
0.6000	0.20259	0.21523	0.22726	0.23868	0.24946	0.25958	0.26904
0.5704	0.26282	0.27372	0.28395	0.29351	0.30238	0.31055	0.31802
0.5000	0.38353	0.38991	0.39554	0.40041	0.40454	0.40792	0.41058
0.4296	0.47888	0.48037	0.48109	0.48107	0.48033	0.47890	0.47682
0.4000	0.51276	0.51212	0.51073	0.50863	0.50585	0.50244	0.49844
0.3000	0.60434	0.59634	0.58783	0.57887	0.56953	0.55989	0.55000
0.2000	0.66603	0.65086	0.63569	0.62060	0.60567	0.59096	0.57652
0.1000	0.70209	0.68075	0.66023	0.64056	0.62175	0.60379	0.58666
0.0500	0.71116	0.68759	0.66532	0.64429	0.62445	0.60572	0.58802
0.0400	0.71227	0.68836	0.66585	0.64465	0.62469	0.60587	0.58812
0.0250	0.71348	0.68917	0.66638	0.64500	0.62491	0.60601	0.58821
0.0200	0.71377	0.68935	0.66649	0.64507	0.62495	0.60603	0.58822
0.0100	0.71415	0.68959	0.66663	0.64514	0.62499	0.60606	0.58823
0.0050	0.71425	0.68964	0.66666	0.64516	0.62500	0.60606	0.58824
0.0020	0.71428	0.68965	0.66667	0.64516	0.62500	0.60606	0.58824
0.0010	0.71428	0.68965	0.66667	0.64516	0.62500	0.60606	0.58824
0.0005	0.71429	0.68966	0.66667	0.64516	0.62500	0.60606	0.58824
0.0001	0.71429	0.68966	0.66667	0.64516	0.62500	0.60606	0.58824

P	G = -3.5	G = -3.6	G = -3.7	G = -3.8	G = -3.9	G = -4.0	G = -4.1
0.9999	-11.37334	-11.57284	-11.77092	-11.96757	-12.16280	-12.35663	-12.54906
0.9995	-8.80779	-8.94335	-9.07750	-9.21023	-9.34158	-9.47154	-9.60013
0.9990	-7.72024	-7.82954	-7.93744	-8.04395	-8.14910	-8.25289	-8.35534
0.9980	-6.64627	-6.73032	-6.81301	-6.89435	-6.97435	-7.05304	-7.13043
0.9950	-5.25291	-5.30559	-5.35698	-5.40711	-5.45598	-5.50362	-5.55005
0.9900	-4.22473	-4.25569	-4.28545	-4.31403	-4.34147	-4.36777	-4.39296
0.9800	-3.22641	-3.23800	-3.24853	-3.25803	-3.26653	-3.27404	-3.28060
0.9750	-2.91299	-2.91898	-2.92397	-2.92799	-2.93107	-2.93324	-2.93450
0.9600	-2.26862	-2.26409	-2.25872	-2.25254	-2.24558	-2.23786	-2.22940
0.9500	-1.97147	-1.96266	-1.95311	-1.94283	-1.93186	-1.92023	-1.90796
0.9000	-1.09552	-1.07726	-1.05863	-1.03965	-1.02036	-1.00079	-0.98096
0.8000	-0.32171	-0.30223	-0.28290	-0.26376	-0.24484	-0.22617	-0.20777
0.7000	0.05730	0.07195	0.08610	0.09972	0.11279	0.12530	0.13725
0.6000	0.27782	0.28592	0.29335	0.30010	0.30617	0.31159	0.31635
0.5704	0.32479	0.33085	0.33623	0.34092	0.34494	0.34831	0.35105
0.5000	0.41253	0.41381	0.41442	0.41441	0.41381	0.41265	0.41097
0.4296	0.47413	0.47088	0.46711	0.46286	0.45819	0.45314	0.44777
0.4000	0.49391	0.48888	0.48342	0.47758	0.47141	0.46496	0.45828
0.3000	0.53993	0.52975	0.51952	0.50929	0.49911	0.48902	0.47906
0.2000	0.56242	0.54867	0.53533	0.52240	0.50990	0.49784	0.48622
0.1000	0.57035	0.55483	0.54006	0.52600	0.51261	0.49986	0.48772
0.0500	0.57130	0.55548	0.54050	0.52629	0.51281	0.49999	0.48780
0.0400	0.57136	0.55552	0.54052	0.52630	0.51281	0.50000	0.48780
0.0250	0.57141	0.55555	0.54054	0.52631	0.51282	0.50000	0.48780
0.0200	0.57142	0.55555	0.54054	0.52631	0.51282	0.50000	0.48780
0.0100	0.57143	0.55556	0.54054	0.52632	0.51282	0.50000	0.48780
0.0050	0.57143	0.55556	0.54054	0.52632	0.51282	0.50000	0.48780
0.0020	0.57143	0.55556	0.54054	0.52632	0.51282	0.50000	0.48780
0.0010	0.57143	0.55556	0.54054	0.52632	0.51282	0.50000	0.48780
0.0005	0.57143	0.55556	0.54054	0.52632	0.51282	0.50000	0.48780
0.0001	0.57143	0.55556	0.54054	0.52632	0.51282	0.50000	0.48780

F	G = -4.2	G = -4.3	G = -4.4	G = -4.5	G = -4.6	G = -4.7	G = -4.8
0.9999	-12.74010	-12.92977	-13.11808	-13.30504	-13.49066	-13.67495	-13.85794
0.9995	-9.72737	-9.85326	-9.97784	-10.10110	-10.22307	-10.34375	-10.46318
0.9990	-8.45646	-8.55627	-8.65479	-8.75202	-8.84800	-8.94273	-9.03623
0.9980	-7.20654	-7.28138	-7.35497	-7.42733	-7.49847	-7.56842	-7.63718
0.9950	-5.59528	-5.63934	-5.68224	-5.72400	-5.76464	-5.80418	-5.84265
0.9900	-4.41706	-4.44009	-4.46207	-4.48303	-4.50297	-4.52192	-4.53990
0.9800	-3.28622	-3.29092	-3.29473	-3.29767	-3.29976	-3.30103	-3.30149
0.9750	-2.93489	-2.93443	-2.93314	-2.93105	-2.92818	-2.92455	-2.92017
0.9600	-2.22024	-2.21039	-2.19988	-2.18874	-2.17699	-2.16465	-2.15174
0.9500	-1.89508	-1.88160	-1.86757	-1.85300	-1.83792	-1.82234	-1.80631
0.9000	-0.96090	-0.94064	-0.92022	-0.89964	-0.87895	-0.85817	-0.83731
0.8000	-0.18967	-0.17189	-0.15445	-0.13737	-0.12067	-0.10436	-0.08847
0.7000	0.14861	0.15939	0.16958	0.17918	0.18819	0.19661	0.20446
0.6000	0.32049	0.32400	0.32693	0.32928	0.33108	0.33236	0.33315
0.5704	0.35318	0.35473	0.35572	0.35619	0.35616	0.35567	0.35475
0.5000	0.40881	0.40621	0.40321	0.39985	0.39617	0.39221	0.38800
0.4296	0.44212	0.43623	0.43016	0.42394	0.41761	0.41121	0.40477
0.4000	0.45142	0.44442	0.43734	0.43020	0.42304	0.41590	0.40880
0.3000	0.46927	0.45967	0.45029	0.44114	0.43223	0.42357	0.41517
0.2000	0.47504	0.46428	0.45395	0.44402	0.43448	0.42532	0.41652
0.1000	0.47614	0.46508	0.45452	0.44443	0.43477	0.42553	0.41666
0.0500	0.47619	0.46511	0.45454	0.44444	0.43478	0.42553	0.41667
0.0400	0.47619	0.46512	0.45455	0.44444	0.43478	0.42553	0.41667
0.0250	0.47619	0.46512	0.45455	0.44444	0.43478	0.42553	0.41667
0.0200	0.47619	0.46512	0.45455	0.44444	0.43478	0.42553	0.41667
0.0100	0.47619	0.46512	0.45455	0.44444	0.43478	0.42553	0.41667
0.0050	0.47619	0.46512	0.45455	0.44444	0.43478	0.42553	0.41667
0.0020	0.47619	0.46512	0.45455	0.44444	0.43478	0.42553	0.41667
0.0010	0.47619	0.46512	0.45455	0.44444	0.43478	0.42553	0.41667
0.0005	0.47619	0.46512	0.45455	0.44444	0.43478	0.42553	0.41667
0.0001	0.47619	0.46512	0.45455	0.44444	0.43478	0.42553	0.41667

P	G = -4.9	G = -5.0	G = -5.1	G = -5.2	G = -5.3	G = -5.4	G = -5.5
0.9999	-14.03963	-14.22064	-14.39918	-14.57706	-14.75370	-14.92912	-15.10332
0.9995	-10.58135	-10.69829	-10.81491	-10.92853	-11.04186	-11.15402	-11.26502
0.9990	-9.12852	-9.21961	-9.30952	-9.39827	-9.48586	-9.57232	-9.65766
0.9980	-7.70479	-7.77124	-7.83657	-7.90078	-7.96390	-8.02594	-8.08691
0.9950	-5.88004	-5.91639	-5.95171	-5.98602	-6.01934	-6.05169	-6.08307
0.9900	-4.55694	-4.57304	-4.58823	-4.60252	-4.61594	-4.62850	-4.64022
0.9800	-3.30116	-3.30007	-3.29823	-3.29567	-3.29240	-3.28844	-3.28381
0.9750	-2.91508	-2.90930	-2.90283	-2.89572	-2.88796	-2.87959	-2.87062
0.9600	-2.13829	-2.12432	-2.10985	-2.09490	-2.07950	-2.06365	-2.04739
0.9500	-1.78982	-1.77292	-1.75563	-1.73795	-1.71992	-1.70155	-1.68287
0.9000	-0.81641	-0.79548	-0.77455	-0.75364	-0.73277	-0.71195	-0.69122
0.8000	-0.07300	-0.05798	-0.04340	-0.02927	-0.01561	-0.00243	0.01028
0.7000	0.21172	0.21843	0.22458	0.23019	0.23527	0.23984	0.24391
0.6000	0.33347	0.33336	0.33284	0.33194	0.33070	0.32914	0.32729
0.5704	0.35343	0.35174	0.34972	0.34740	0.34481	0.34198	0.33895
0.5000	0.38359	0.37901	0.37428	0.36945	0.36453	0.35956	0.35456
0.4296	0.39833	0.39190	0.38552	0.37919	0.37295	0.36680	0.36076
0.4000	0.40177	0.39482	0.38799	0.38127	0.37469	0.36825	0.36196
0.3000	0.40703	0.39914	0.39152	0.38414	0.37701	0.37011	0.36345
0.2000	0.40806	0.39993	0.39211	0.38458	0.37734	0.37036	0.36363
0.1000	0.40816	0.40000	0.39216	0.38462	0.37736	0.37037	0.36364
0.0500	0.40816	0.40000	0.39216	0.38462	0.37736	0.37037	0.36364
0.0400	0.40816	0.40000	0.39216	0.38462	0.37736	0.37037	0.36364
0.0250	0.40816	0.40000	0.39216	0.38462	0.37736	0.37037	0.36364
0.0200	0.40816	0.40000	0.39216	0.38462	0.37736	0.37037	0.36364
0.0100	0.40816	0.40000	0.39216	0.38462	0.37736	0.37037	0.36364
0.0050	0.40816	0.40000	0.39216	0.38462	0.37736	0.37037	0.36364
0.0020	0.40816	0.40000	0.39216	0.38462	0.37736	0.37037	0.36364
0.0010	0.40816	0.40000	0.39216	0.38462	0.37736	0.37037	0.36364
0.0005	0.40816	0.40000	0.39216	0.38462	0.37736	0.37037	0.36364
0.0001	0.40816	0.40000	0.39216	0.38462	0.37736	0.37037	0.36364

P	G = -5.6	G = -5.7	G = -5.8	G = -5.9	G = -6.0	G = -6.1	G = -6.2
0.9999	-15.27632	-15.44813	-15.61878	-15.78826	-15.95660	-16.12380	-16.28989
0.9995	-11.37487	-11.48360	-11.59122	-11.69773	-11.80316	-11.90752	-12.01082
0.9990	-9.74190	-9.82505	-9.90713	-9.98815	-10.06812	-10.14706	-10.22499
0.9980	-8.14683	-8.20572	-8.26359	-8.32046	-8.37634	-8.43125	-8.48519
0.9950	-6.11351	-6.14302	-6.17162	-6.19933	-6.22616	-6.25212	-6.27723
0.9900	-4.65111	-4.66120	-4.67050	-4.67903	-4.68680	-4.69382	-4.70013
0.9800	-3.27854	-3.27263	-3.26610	-3.25898	-3.25128	-3.24301	-3.23419
0.9750	-2.86107	-2.85096	-2.84030	-2.82912	-2.81743	-2.80525	-2.79259
0.9600	-2.03073	-2.01369	-1.99629	-1.97855	-1.96048	-1.94210	-1.92343
0.9500	-1.66390	-1.64464	-1.62513	-1.60538	-1.58541	-1.56524	-1.54487
0.9000	-0.67058	-0.65006	-0.62966	-0.60941	-0.58933	-0.56942	-0.54970
0.8000	0.02252	0.03427	0.04553	0.05632	0.06662	0.07645	0.08580
0.7000	0.24751	0.25064	0.25334	0.25562	0.25750	0.25901	0.26015
0.6000	0.32519	0.32285	0.32031	0.31759	0.31472	0.31171	0.30859
0.5704	0.33573	0.33236	0.32886	0.32525	0.32155	0.31780	0.31399
0.5000	0.34955	0.34455	0.33957	0.33463	0.32974	0.32492	0.32016
0.4296	0.35484	0.34903	0.34336	0.33782	0.33242	0.32715	0.32202
0.4000	0.35583	0.34985	0.34402	0.33836	0.33285	0.32750	0.32230
0.3000	0.35700	0.35078	0.34476	0.33893	0.33330	0.32784	0.32256
0.2000	0.35714	0.35087	0.34483	0.33898	0.33333	0.32787	0.32258
0.1000	0.35714	0.35088	0.34483	0.33898	0.33333	0.32787	0.32258
0.0500	0.35714	0.35088	0.34483	0.33898	0.33333	0.32787	0.32258
0.0400	0.35714	0.35088	0.34483	0.33898	0.33333	0.32787	0.32258
0.0250	0.35714	0.35088	0.34483	0.33898	0.33333	0.32787	0.32258
0.0200	0.35714	0.35088	0.34483	0.33898	0.33333	0.32787	0.32258
0.0100	0.35714	0.35088	0.34483	0.33898	0.33333	0.32787	0.32258
0.0050	0.35714	0.35088	0.34483	0.33898	0.33333	0.32787	0.32258
0.0020	0.35714	0.35088	0.34483	0.33898	0.33333	0.32787	0.32258
0.0010	0.35714	0.35088	0.34483	0.33898	0.33333	0.32787	0.32258
0.0005	0.35714	0.35088	0.34483	0.33898	0.33333	0.32787	0.32258
0.0001	0.35714	0.35088	0.34483	0.33898	0.33333	0.32787	0.32258

P	G = -6.3	G = -6.4	G = -6.5	G = -6.6	G = -6.7	G = -6.8	G = -6.9
0.9999	-16.45487	-16.61875	-16.78156	-16.94329	-17.10397	-17.26361	-17.42221
0.9995	-12.11307	-12.21429	-12.31450	-12.41370	-12.51190	-12.60913	-12.70539
0.9990	-10.30192	-10.37785	-10.45281	-10.52681	-10.59986	-10.67197	-10.74316
0.9980	-8.53820	-8.59027	-8.64142	-8.69167	-8.74102	-8.78950	-8.83711
0.9950	-6.30151	-6.32497	-6.34762	-6.36948	-6.39055	-6.41086	-6.43042
0.9900	-4.70571	-4.71061	-4.71482	-4.71836	-4.72125	-4.72350	-4.72512
0.9800	-3.22484	-3.21497	-3.20460	-3.19374	-3.18241	-3.17062	-3.15838
0.9750	-2.77947	-2.76591	-2.75191	-2.73751	-2.72270	-2.70751	-2.69195
0.9600	-1.90449	-1.88528	-1.86584	-1.84616	-1.82627	-1.80618	-1.78591
0.9500	-1.52434	-1.50365	-1.48281	-1.46186	-1.44079	-1.41963	-1.39839
0.9000	-0.53019	-0.51089	-0.49182	-0.47299	-0.45440	-0.43608	-0.41803
0.8000	0.09469	0.10311	0.11107	0.11859	0.12566	0.13231	0.13853
0.7000	0.26097	0.26146	0.26167	0.26160	0.26128	0.26072	0.25995
0.6000	0.30538	0.30209	0.29875	0.29537	0.29196	0.28854	0.28511
0.5704	0.31016	0.30631	0.30246	0.29862	0.29480	0.29101	0.28726
0.5000	0.31549	0.31090	0.30639	0.30198	0.29766	0.29344	0.28931
0.4296	0.31702	0.31216	0.30743	0.30283	0.29835	0.29400	0.28977
0.4000	0.31724	0.31234	0.30757	0.30294	0.29844	0.29407	0.28982
0.3000	0.31745	0.31249	0.30769	0.30303	0.29850	0.29412	0.28985
0.2000	0.31746	0.31250	0.30769	0.30303	0.29851	0.29412	0.28986
0.1000	0.31746	0.31250	0.30769	0.30303	0.29851	0.29412	0.28986
0.0500	0.31746	0.31250	0.30769	0.30303	0.29851	0.29412	0.28986
0.0400	0.31746	0.31250	0.30769	0.30303	0.29851	0.29412	0.28986
0.0250	0.31746	0.31250	0.30769	0.30303	0.29851	0.29412	0.28986
0.0200	0.31746	0.31250	0.30769	0.30303	0.29851	0.29412	0.28986
0.0100	0.31746	0.31250	0.30769	0.30303	0.29851	0.29412	0.28986
0.0050	0.31746	0.31250	0.30769	0.30303	0.29851	0.29412	0.28986
0.0020	0.31746	0.31250	0.30769	0.30303	0.29851	0.29412	0.28986
0.0010	0.31746	0.31250	0.30769	0.30303	0.29851	0.29412	0.28986
0.0005	0.31746	0.31250	0.30769	0.30303	0.29851	0.29412	0.28986
0.0001	0.31746	0.31250	0.30769	0.30303	0.29851	0.29412	0.28986

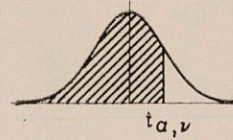
P	G = -7.0	G = -7.1	G = -7.2	G = -7.3	G = -7.4	G = -7.5	G = -7.6
0.9999	-17.57979	-17.73636	-17.89193	-18.04652	-18.20013	-18.35278	-18.50447
0.9995	-12.80069	-12.89505	-12.98848	-13.08098	-13.17258	-13.26328	-13.35309
0.9990	-10.81343	-10.88281	-10.95129	-11.01890	-11.08565	-11.15154	-11.21658
0.9980	-8.88387	-8.92979	-8.97488	-9.01915	-9.06261	-9.10528	-9.14717
0.9950	-6.44924	-6.46733	-6.48470	-6.50137	-6.51735	-6.53264	-6.54727
0.9900	-4.72613	-4.72653	-4.72635	-4.72559	-4.72427	-4.72240	-4.71998
0.9800	-3.14572	-3.13263	-3.11914	-3.10525	-3.09099	-3.07636	-3.06137
0.9750	-2.67603	-2.65977	-2.64317	-2.62626	-2.60905	-2.59154	-2.57375
0.9600	-1.76547	-1.74487	-1.72412	-1.70325	-1.68225	-1.66115	-1.63995
0.9500	-1.37708	-1.35571	-1.33430	-1.31287	-1.29141	-1.26995	-1.24850
0.9000	-0.40026	-0.38277	-0.36557	-0.34868	-0.33209	-0.31582	-0.29986
0.8000	0.14434	0.14975	0.15478	0.15942	0.16371	0.16764	0.17123
0.7000	0.25899	0.25785	0.25654	0.25510	0.25352	0.25183	0.25005
0.6000	0.28169	0.27829	0.27491	0.27156	0.26825	0.26497	0.26175
0.5704	0.28355	0.27990	0.27629	0.27274	0.26926	0.26584	0.26248
0.5000	0.28528	0.28135	0.27751	0.27376	0.27010	0.26654	0.26306
0.4296	0.28565	0.28164	0.27774	0.27394	0.27025	0.26665	0.26315
0.4000	0.28569	0.28167	0.27776	0.27396	0.27026	0.26666	0.26315
0.3000	0.28571	0.28169	0.27778	0.27397	0.27027	0.26667	0.26316
0.2000	0.28571	0.28169	0.27778	0.27397	0.27027	0.26667	0.26316
0.1000	0.28571	0.28169	0.27778	0.27397	0.27027	0.26667	0.26316
0.0500	0.28571	0.28169	0.27778	0.27397	0.27027	0.26667	0.26316
0.0400	0.28571	0.28169	0.27778	0.27397	0.27027	0.26667	0.26316
0.0250	0.28571	0.28169	0.27778	0.27397	0.27027	0.26667	0.26316
0.0200	0.28571	0.28169	0.27778	0.27397	0.27027	0.26667	0.26316
0.0100	0.28571	0.28169	0.27778	0.27397	0.27027	0.26667	0.26316
0.0050	0.28571	0.28169	0.27778	0.27397	0.27027	0.26667	0.26316
0.0020	0.28571	0.28169	0.27778	0.27397	0.27027	0.26667	0.26316
0.0010	0.28571	0.28169	0.27778	0.27397	0.27027	0.26667	0.26316
0.0005	0.28571	0.28169	0.27778	0.27397	0.27027	0.26667	0.26316
0.0001	0.28571	0.28169	0.27778	0.27397	0.27027	0.26667	0.26316

P	G = -7.7	G = -7.8	G = -7.9	G = -8.0	G = -8.1	G = -8.2	G = -8.3
0.9999	-18.65522	-18.80504	-18.95393	-19.10191	-19.24898	-19.39517	-19.54046
0.9995	-13.44202	-13.53009	-13.61730	-13.70366	-13.78919	-13.87389	-13.95778
0.9990	-11.28080	-11.34419	-11.40677	-11.46855	-11.52953	-11.58974	-11.64917
0.9980	-9.18828	-9.22863	-9.26823	-9.30709	-9.34521	-9.38262	-9.41931
0.9950	-6.56124	-6.57456	-6.58725	-6.59931	-6.61075	-6.62159	-6.63183
0.9900	-4.71704	-4.71358	-4.70961	-4.70514	-4.70019	-4.69476	-4.68887
0.9800	-3.04604	-3.03038	-3.01439	-2.99810	-2.98150	-2.96462	-2.94746
0.9750	-2.55569	-2.53737	-2.51881	-2.50001	-2.48099	-2.46175	-2.44231
0.9600	-1.61867	-1.59732	-1.57591	-1.55444	-1.53294	-1.51141	-1.48985
0.9500	-1.22706	-1.20565	-1.18427	-1.16295	-1.14168	-1.12048	-1.09936
0.9000	-0.28422	-0.26892	-0.25394	-0.23929	-0.22498	-0.21101	-0.19737
0.8000	0.17450	0.17746	0.18012	0.18249	0.18459	0.18643	0.18803
0.7000	0.24817	0.24622	0.24421	0.24214	0.24003	0.23788	0.23571
0.6000	0.25857	0.25544	0.25236	0.24933	0.24637	0.24345	0.24060
0.5704	0.25919	0.25596	0.25280	0.24970	0.24667	0.24371	0.24081
0.5000	0.25966	0.25635	0.25312	0.24996	0.24689	0.24388	0.24095
0.4296	0.25973	0.25640	0.25316	0.25000	0.24691	0.24390	0.24096
0.4000	0.25974	0.25641	0.25316	0.25000	0.24691	0.24390	0.24096
0.3000	0.25974	0.25641	0.25316	0.25000	0.24691	0.24390	0.24096
0.2000	0.25974	0.25641	0.25316	0.25000	0.24691	0.24390	0.24096
0.1000	0.25974	0.25641	0.25316	0.25000	0.24691	0.24390	0.24096
0.0500	0.25974	0.25641	0.25316	0.25000	0.24691	0.24390	0.24096
0.0400	0.25974	0.25641	0.25316	0.25000	0.24691	0.24390	0.24096
0.0250	0.25974	0.25641	0.25316	0.25000	0.24691	0.24390	0.24096
0.0200	0.25974	0.25641	0.25316	0.25000	0.24691	0.24390	0.24096
0.0100	0.25974	0.25641	0.25316	0.25000	0.24691	0.24390	0.24096
0.0050	0.25974	0.25641	0.25316	0.25000	0.24691	0.24390	0.24096
0.0020	0.25974	0.25641	0.25316	0.25000	0.24691	0.24390	0.24096
0.0010	0.25974	0.25641	0.25316	0.25000	0.24691	0.24390	0.24096
0.0005	0.25974	0.25641	0.25316	0.25000	0.24691	0.24390	0.24096
0.0001	0.25974	0.25641	0.25316	0.25000	0.24691	0.24390	0.24096

P	G = -8.4	G = -8.5	G = -8.6	G = -8.7	G = -8.8	G = -8.9	G = -9.0
0.9999	-19.68489	-19.82845	-19.97115	-20.11300	-20.25402	-20.39420	-20.53356
0.9995	-14.04086	-14.12314	-14.20463	-14.28534	-14.36528	-14.44446	-14.52288
0.9990	-11.70785	-11.76576	-11.82294	-11.87938	-11.93509	-11.99009	-12.04437
0.9980	-9.45530	-9.49060	-9.52521	-9.55915	-9.59243	-9.62504	-9.65701
0.9950	-6.64148	-6.65056	-6.65907	-6.66703	-6.67443	-6.68130	-6.68763
0.9900	-4.68252	-4.67573	-4.66850	-4.66085	-4.65277	-4.64429	-4.63541
0.9800	-2.93002	-2.91234	-2.89440	-2.87622	-2.85782	-2.83919	-2.82035
0.9750	-2.42264	-2.40287	-2.38288	-2.36273	-2.34242	-2.32197	-2.30138
0.9600	-1.46329	-1.44673	-1.42518	-1.40364	-1.38213	-1.36065	-1.33922
0.9500	-1.07332	-1.05738	-1.03654	-1.01581	-0.99519	-0.97471	-0.95435
0.9000	-0.18408	-0.17113	-0.15851	-0.14624	-0.13431	-0.12272	-0.11146
0.8000	0.18939	0.19054	0.19147	0.19221	0.19277	0.19316	0.19338
0.7000	0.23352	0.23132	0.22911	0.22690	0.22469	0.22249	0.22030
0.6000	0.23779	0.23505	0.23236	0.22972	0.22714	0.22461	0.22214
0.5704	0.23797	0.23520	0.23248	0.22982	0.22722	0.22468	0.22219
0.5000	0.23803	0.23528	0.23255	0.22988	0.22727	0.22472	0.22222
0.4296	0.23809	0.23529	0.23256	0.22988	0.22727	0.22472	0.22222
0.4000	0.23810	0.23529	0.23256	0.22988	0.22727	0.22472	0.22222
0.3000	0.23810	0.23529	0.23256	0.22989	0.22727	0.22472	0.22222
0.2000	0.23810	0.23529	0.23256	0.22989	0.22727	0.22472	0.22222
0.1000	0.23810	0.23529	0.23256	0.22989	0.22727	0.22472	0.22222
0.0500	0.23810	0.23529	0.23256	0.22989	0.22727	0.22472	0.22222
0.0400	0.23810	0.23529	0.23256	0.22989	0.22727	0.22472	0.22222
0.0250	0.23810	0.23529	0.23256	0.22989	0.22727	0.22472	0.22222
0.0200	0.23810	0.23529	0.23256	0.22989	0.22727	0.22472	0.22222
0.0100	0.23810	0.23529	0.23256	0.22989	0.22727	0.22472	0.22222
0.0050	0.23810	0.23529	0.23256	0.22989	0.22727	0.22472	0.22222
0.0020	0.23810	0.23529	0.23256	0.22989	0.22727	0.22472	0.22222
0.0010	0.23810	0.23529	0.23256	0.22989	0.22727	0.22472	0.22222
0.0005	0.23810	0.23529	0.23256	0.22989	0.22727	0.22472	0.22222
0.0001	0.23810	0.23529	0.23256	0.22989	0.22727	0.22472	0.22222

APPENDIX — V

Percentile Values ($t_{\alpha, \nu}$) for the t Distribution with ν Degrees of Freedom (shaded area = α).



ν	$t_{.99}$	$t_{.95}$	$t_{.90}$	$t_{.85}$	$t_{.80}$	$t_{.75}$	$t_{.70}$	$t_{.65}$	$t_{.60}$
1	63.66	31.82	12.71	6.31	3.08	1.376	1.000	.727	.325
2	9.92	6.96	4.30	2.92	1.89	1.061	.816	.617	.289
3	5.84	4.54	3.18	2.35	1.64	.978	.765	.584	.277
4	4.60	3.75	2.78	2.13	1.53	.941	.741	.569	.271
5	4.03	3.36	2.57	2.02	1.48	.920	.727	.559	.267
6	3.71	3.14	2.45	1.94	1.44	.906	.718	.553	.265
7	3.50	3.00	2.36	1.90	1.42	.896	.711	.549	.263
8	3.36	2.90	2.31	1.86	1.40	.889	.706	.546	.262
9	3.25	2.82	2.26	1.83	1.38	.883	.703	.543	.261
10	3.17	2.76	2.23	1.81	1.37	.879	.700	.542	.260
11	3.11	2.72	2.20	1.80	1.36	.876	.697	.540	.260
12	3.06	2.68	2.18	1.78	1.36	.873	.695	.539	.259
13	3.01	2.65	2.16	1.77	1.35	.870	.694	.538	.259
14	2.98	2.62	2.14	1.76	1.34	.868	.692	.537	.258
15	2.95	2.60	2.13	1.75	1.34	.866	.691	.536	.258
16	2.92	2.58	2.12	1.75	1.34	.865	.690	.535	.258
17	2.90	2.57	2.11	1.74	1.33	.863	.689	.534	.257
18	2.88	2.55	2.10	1.73	1.33	.862	.688	.534	.257
19	2.86	2.54	2.09	1.73	1.33	.861	.688	.533	.257
20	2.84	2.53	2.09	1.72	1.32	.860	.687	.533	.257
21	2.83	2.52	2.08	1.72	1.32	.859	.686	.532	.257
22	2.82	2.51	2.07	1.72	1.32	.858	.686	.532	.256
23	2.81	2.50	2.07	1.71	1.32	.858	.685	.532	.256
24	2.80	2.49	2.06	1.71	1.32	.857	.685	.531	.256
25	2.79	2.48	2.06	1.71	1.32	.856	.684	.531	.256
26	2.78	2.48	2.06	1.71	1.32	.856	.684	.531	.256
27	2.77	2.47	2.05	1.70	1.31	.855	.684	.531	.256
28	2.76	2.47	2.05	1.70	1.31	.855	.683	.530	.256
29	2.76	2.46	2.04	1.70	1.31	.854	.683	.530	.256
30	2.75	2.46	2.04	1.70	1.31	.854	.683	.530	.256
40	2.70	2.42	2.02	1.68	1.30	.851	.681	.529	.255
60	2.66	2.39	2.00	1.67	1.30	.848	.679	.527	.254
120	2.62	2.36	1.98	1.66	1.29	.845	.677	.526	.254
∞	2.58	2.33	1.96	1.645	1.28	.842	.674	.524	.253

(shaded area = α)



	$\chi^2_{99.5}$	χ^2_{99}	$\chi^2_{97.5}$	χ^2_{95}	χ^2_{90}	χ^2_{75}	χ^2_{50}	χ^2_{25}	χ^2_{10}	χ^2_{05}	χ^2_{025}	χ^2_{01}	χ^2_{005}
1	7.88	6.63	5.02	3.84	2.71	1.32	.455	.102	.0158	.0039	.0010	.0002	.0000
2	10.6	9.21	7.38	5.99	4.61	2.77	1.39	.575	.211	.103	.0506	.0201	.0100
3	12.8	11.3	9.35	7.81	6.25	4.11	2.37	1.21	.584	.352	.216	.115	.072
4	14.9	13.3	11.1	9.49	7.78	5.39	3.36	1.92	1.06	.711	.484	.297	.207
5	16.7	15.1	12.8	11.1	9.24	6.63	4.35	2.67	1.61	1.15	.831	.554	.41
6	18.5	16.8	14.4	12.6	10.6	7.84	5.35	3.45	2.20	1.64	1.24	.872	.676
7	20.3	18.5	16.0	14.1	12.0	9.04	6.35	4.25	2.83	2.17	1.69	1.24	.989
8	22.0	20.1	17.5	15.5	13.4	10.2	7.34	5.07	3.49	2.73	2.18	1.65	1.34
9	23.6	21.7	19.0	16.9	14.7	11.4	8.34	5.90	4.17	3.33	2.70	2.09	1.73
10	25.2	23.2	20.5	18.3	16.0	12.5	9.34	6.74	4.87	3.94	3.25	2.56	2.16
11	26.8	24.7	21.9	19.7	17.3	13.7	10.3	7.58	5.58	4.57	3.82	3.05	2.60
12	28.3	26.2	23.3	21.0	18.5	14.8	11.3	8.44	6.30	5.23	4.40	3.57	3.07
13	29.8	27.7	24.7	22.4	19.8	16.0	12.3	9.30	7.04	5.89	5.01	4.11	3.57
14	31.3	29.1	26.1	23.7	21.1	17.1	13.3	10.2	7.79	6.57	5.63	4.66	4.07
15	32.8	30.6	27.5	25.0	22.3	18.2	14.3	11.0	8.55	7.26	6.26	5.23	4.60
16	34.3	32.0	28.8	26.3	23.5	19.4	15.3	11.9	9.31	7.96	6.91	5.81	5.14
17	35.7	33.4	30.2	27.6	24.8	20.5	16.3	12.8	10.1	8.67	7.56	6.41	5.70
18	37.2	34.8	31.5	28.9	26.0	21.6	17.3	13.7	10.9	9.39	8.23	7.01	6.26
19	38.6	36.2	32.9	30.1	27.2	22.7	18.3	14.6	11.7	10.1	8.91	7.63	6.84
20	40.0	37.6	34.2	31.4	28.4	23.8	19.3	15.5	12.4	10.9	9.59	8.26	7.43
21	41.4	38.9	35.5	32.7	29.6	24.9	20.3	16.3	13.2	11.6	10.3	8.90	8.03
22	42.8	40.3	36.8	33.9	30.8	26.0	21.3	17.2	14.0	12.3	11.0	9.54	8.64
23	44.2	41.6	38.1	35.2	32.0	27.1	22.3	18.1	14.8	13.1	11.7	10.2	9.26
24	45.6	43.0	39.4	36.4	33.2	28.2	23.3	19.0	15.7	13.8	12.4	10.9	9.89
25	46.9	44.3	40.6	37.7	34.4	29.3	24.3	19.9	16.5	14.6	13.1	11.5	10.5
26	48.3	45.6	41.9	38.9	35.6	30.4	25.3	20.8	17.3	15.4	13.8	12.2	11.2
27	49.6	47.0	43.2	40.1	36.7	31.5	26.3	21.7	18.1	16.2	14.6	12.9	11.8
28	51.0	48.3	44.5	41.3	37.9	32.6	27.3	22.7	18.9	16.9	15.3	13.6	12.5
29	52.3	49.6	45.7	42.6	39.1	33.7	28.3	23.6	19.8	17.7	16.0	14.3	13.1
30	53.7	50.9	47.0	43.8	40.3	34.8	29.3	24.5	20.6	18.5	16.8	15.0	13.8
40	66.8	63.7	59.3	55.8	51.8	45.6	39.3	33.7	29.1	26.5	24.4	22.2	20.7
50	79.5	76.2	71.4	67.5	63.2	56.3	49.3	42.9	37.7	34.8	32.4	29.7	28.0
60	92.0	88.4	83.3	79.1	74.4	67.0	59.3	52.3	46.5	43.2	40.5	37.5	35.5
70	104.2	100.4	95.0	90.5	85.5	77.6	69.3	61.7	55.3	51.7	48.8	45.4	43.3
80	116.3	112.3	106.6	101.9	96.6	88.1	79.3	71.1	64.3	60.4	57.2	53.5	51.2
90	128.3	124.1	118.1	113.1	107.6	98.6	89.3	80.6	73.3	69.1	65.6	61.8	59.2
100	140.2	135.8	129.6	124.3	118.5	109.1	99.3	90.1	82.4	77.9	74.2	70.1	67.3

APPENDIX — VII

CONDITIONAL PROBABILITY ADJUSTMENT

For situations where the record of annual peaks is truncated by the omission of peaks below a gauge base, years with zero flow, and/or low outlier criterion, the conditional probability is recommended to obtain the frequency curve. These procedure should only be used when not over 25% of the total record has been truncated. A truncation level is defined as the minimum discharge that will exclude peaks below the gauge base, zero flows and all low outliers.

The steps in the conditional probability adjustment are as follows :

1. Calculate the estimated probability $\tilde{P}$ that any annual peak will exceed the truncation level by the formula

$$\tilde{P} = N/n \quad (1)$$

in which N is the number of peaks above the truncation level and n is the total number of years of record. If historical information has been included then the following equation should be used rather than equation 1 :

$$\tilde{P} = \frac{H-WL}{H} \quad (2)$$

where H is the historic record length, L the number of peaks truncated and W is the systematic record weight as computed in Appendix-VIII equation 1.

2. Recompute the exceedance probabilities, P, for selected points, Pd, on the frequency curve using

$$P = \tilde{P} \times P_d \quad (3)$$

This accounts for the omission of peaks below the truncation level.

3. The exceedance probabilities, P, computed by eqn. 3 are usually not those needed to compute the synthetic sample statistics. Therefore, it is necessary to interpolate either graphically or mathematically to obtain log discharge values for the 0.01, 0.10 and 0.50 exceedance probabilities,
4. Since the conditional probability adjusted frequency curve does not have known statistics, synthetic ones will be computed. These synthetic statistics will be determined based on the values for the three exceedance probabilities determined in step 3, using the following equations.

$$G_s = -2.50 + 3.12 \frac{\log (Q_{0.01}/Q_{0.10})}{\log (Q_{0.10}/Q_{0.50})} \quad (4)$$

$$S_s = \frac{\log (Q_{0.01} / Q_{0.50})}{K_{0.01} - K_{0.50}} \quad (5)$$

$$\bar{X}_s = \log (Q_{0.5}) - K_{0.5} (S_s) \quad (6)$$

where G_s , L_s and $\bar{X}_s$ are the synthetic logarithmic skew coefficients, standard deviation and mean respectively; $Q_{0.01}$, $Q_{0.10}$ and $Q_{0.50}$ are discharges with 0.01, 0.10 and 0.50 exceedance probabilities respectively, and $K_{0.01}$ and $K_{0.50}$ are Pearson type III deviates for exceedance probabilities of 0.01, and 0.50 respectively and skew coefficient G_s . Equation 4 is an approximation, appropriate for use between skew values of +2.5 and -2.0.

5. The frequency curve developed from the synthetic statistics should be compared with the observed annual peak discharges. The plotting position should be used based upon the total number of years record, n or H as appropriate.

NOTE : The procedure described above for conditional probability adjustment is valid only for log Pearson Type III distribution,

APPENDIX — VIII

COMPUTATION OF FREQUENCY CURVE FOR HISTORIC DATA AND OUTLIERS (WRC PROCEDURE)

Flood information outside that in the systematic record can often be used to extend the record of the largest events to a historic period much longer than that of the systematic record. In such a situation, the following analytical techniques are used to compute a historically adjusted log-Pearson type III frequency curve.

1. Historic knowledge is used to define the historically longer period of 'H' years. The number 'Z' of events that are known to be the largest in the historically longer period 'H' are given a weight of 1.0. The remaining 'N' events from the systematic record are given a weight of (H-Z)/N on the assumption that their distribution is representative of the (H-Z) remaining years of the historically longer period.
2. The computations can be done directly by applying the weights to each individual year's data using equations 1, 2a, 3a, and 4a. If statistics have been previously computed for the current continuous record, they can be adjusted to give the equivalent historically adjusted values using equations 1, 2b, 3b and 4b.
3. The historically adjusted frequency curve is sketched on logarithmic-probability paper through points established by use of equation 5. The individual flood events should also be plotted for comparison. The historically adjusted plotting positions for the individual flood events are computed by use of eq. 8, in which the historically adjusted order number of each event 'm' is computed from equations 6 and 7.

$$W = \frac{H-Z}{N+L} \quad (1)$$

$$M = \frac{W \sum X + \sum X_z}{H-WL} \quad (2a)$$

$$S'^2 = \frac{W \sum (X-M')^2 + \sum (X_z - M')^2}{(H-WL-1)} \quad (3a)$$

$$G' = \frac{(H-WL)}{(H-WL-1)(H-WL-2)} \frac{W \sum (X-M')^3 + \sum (X_z - M')^3}{S'^3} \quad (4a)$$

$$M' = \frac{WNM + \sum X_z}{H-WL} \quad (2b)$$

$$S'^2 = \frac{W(N-1)S^2 + WN(M-M')^2 + \sum (X_z - M')^2}{(H-WL-1)} \quad (3b)$$

$$G' = \frac{(H-WL)}{(H-WL-1)(H-WL-2)S^3} \left[\frac{W(N-1)(N-2)S^3G}{N} + 3W(N-1)(M-M')S^2 + WN(M-M')^3 + \sum (X_z - M')^3 \right] \quad (4b)$$

$$\log Q = M' + KS' \quad (5)$$

$$m' = E; \text{ when } : 1 \leq E \leq Z \quad (6)$$

$$m' = WE - (W-1)(Z+0.5); \text{ when } : (Z+1) \leq E \leq (Z+N+L) \quad (7)$$

$$pp' = \frac{m' - a}{H+1-2a} 100 \quad (8)$$

DEFINITION OF SYMBOLS

- E = event number when events are ranked in order from greatest magnitude to smallest magnitude. The event number 'E' will range from 1 to (Z+N).
- X = logarithmic magnitude of systematic peaks excluding a high outlier that has historic information
- N = number of X's
- M = mean of X's
- M' = historically adjusted mean
- m' = historically adjusted order number of each event for use in formulas to compute the plotting position on probability paper
- S = standard deviation of the X's
- S' = historically adjusted standard deviation
- G = skew coefficient of the X's
- G' = historically adjusted skew coefficient
- K = Pearson Type III coordinate expressed in number of standard deviations from the mean for a specified recurrence interval or percent chance.
- Q = computed flood flow for a selected recurrence interval or percent chance
- pp' = plotting position in percent
- p' = probability that any peak will exceed the truncation level
- Z = Number of historic peaks including high outliers that have historic information
- N = number of years in historic period
- L = number of low values to be excluded, such as number of zeros, number of incomplete record years (below measurable base), and low outliers which have been identified,
- a = constant that is characteristic of a given plotting position formula. For Weibull formula a = 0;
- W = systematic record weight

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APPENDIX—IX
ADJUSTING FOR A HIGH OUTLIER

The adjustment of parameters in the presence of a high outlier has been explained through the following example:

EXAMPLE :

Check whether the following peak flood series (1935—73] contain any high outlier or not. If high outlier is present then adjust the parameters (mean, standard deviation and coeff. of skewness).

TABLE
ANNUAL PEAK DISCHARGE SERIES [1935-73]

Year	Discharge Q (Cumecs)	Log ₁₀ Q	Year	Discharge Q (Cumecs)	Log ₁₀ Q
1935	1460	3.164	1955	2260	3.354
1936	4050	3.607	1956	318	2.502
1937	3570	3.552	1957	1330	3.123
1938	2060	3.313	1958	970	2.986
1939	1300	3.114	1959	1920	3.283
1940	1390	3.143	1960	15100	4.178
1941	1720	3.235	1961	2870	3.457
1942	6280	3.798	1962	20600	4.313
1943	1360	3.133	1963	3810	3.580
1944	7440	3.871	1964	726	2.860
1945	5320	3.725	1965	7500	3.875
1946	1400	3.146	1966	7170	3.855
1947	3240	3.510	1967	2000	3.301
1948	2710	3.432	1968	829	2.918
1949	4520	3.655	1969	17300	4.238
1950	4840	3.684	1970	4740	3.675
1951	8320	3.920	1971	13400	4.127
1952	13900	4.143	1972	2940	3.468
1953	71500	4.854	1973	5660	3.752
1954	6250	3.795			

Step 1—Compute the statistics. Log transformed annual peak discharges have the following statistics

Mean Logarithm	3.5553
Standard Deviation of logs	0.4642
Skew Coefficient of logs	0.3566
Years	39

Step 2—Check for Outliers.

The station skew is between ± 0.4 ; therefore, the tests for both high outliers and low outliers are based on the systematic record statistics before any adjustments are made. From Appendix X the K_N for a sample size of 39 is 2.671.

The high outlier threshold X_H is computed by

$$X_H = \bar{X} + K_N S$$

$$= 3.5553 + 2.671 (.4642) = 4.7952$$

$$Q_H = \text{antilog } (4.7952) = 62400 \text{ cumecs}$$

The 1953 value of 71500 exceeds this value. Information from local residents indicates that the 1953 event is known to be the largest event since 1892; therefore, this event will be treated as high outlier. If such information was not available, comparisons with nearby stations might have been desirable. The low-outlier threshold (X_L) is computed by

$$X_L = \bar{X} - K_N S$$

$$= 3.5553 - 2.671 (.4642) = 2.3154$$

$$Q_L = \text{antilog } [2.3154] = 207 \text{ cumecs}$$

There are no values below this threshold value.

Step 3 - Recompute the statistics

The 1953 value is deleted and the statistics recomputed from the remaining systematic record :

Mean Logarithm	3.5212
Standard Deviation of logs	0.4177
Skew Coefficient of logs	-0.0949
Years	38

Step 4—Use of historic data to modify statistics and plotting positions.

Application of the procedures in Appendix VIII allows the computed statistics to be adjusted by incorporation of the historic data.

- (i) The historic period (H) is 1892-1973 or 82 years and the number of low values excluded (L) is zero.
- (ii) The systematic period (N) is 1935-1973 (with 1953 deleted) or 38 years.
- (iii) There is one event (Z) known to be the largest in 82 years.

4. Compute weighting factor (W) by eq. 1 (Appendix VIII)

$$W = \frac{H-Z}{N+L}$$

$$= \frac{82-1}{38+0} = 2.13158$$

Compute adjusted mean by equation 2b (Appendix VIII)

$$M' = \frac{WNM + X_z}{H-WL}$$

$$X = M = 3.5212$$

$$WNM = 285.2173$$

$$\Sigma X_z = \frac{4.8543}{290.0716}$$

$$M' = 290.0716/(82-0) = 3.5375$$

Compute adjusted standard deviation Equation 3b (Appendix VIII)

$$S' = \frac{W(N-1)S^2 + WN(M-M')^2 + (X_z-M')^2}{H-WL-1}$$

$$S = .4177$$

$$W(N-1)S^2 = 13.7604$$

$$WN(M-M')^2 = 0.0215$$

$$\Sigma (X_z-M')^2 = \frac{1.7340}{15.5159}$$

$$S'^2 = \frac{15.5159}{82-0-1} = 0.1916$$

$$S' = .4377$$

Compute adjusted skew :

First compute adjusted skew on basis of record by Equation 4b (Appendix VIII)

$$G = \frac{H-WL}{(H-WL-1)(H-WL-2)S^3} \left[\frac{W(N-1)(N-2)S^3G}{N} + 3W(N-1)(M-M')S^2 \right. \\ \left. + WN(M-M')^3 + (X_z-M')^3 \right]$$

$$G = 0.0949$$

$$\frac{W(N-1)(N-2)S^3G}{N} = -.5168$$

$$3W (N-1) (M-M') S^2 = - .6729$$

$$WN (M-M')^3 = - .0004$$

$$\Sigma (X_2-M')^3 = \frac{2.2833}{1.0932}$$

$$\frac{H}{(H-WL-1) (H-WL-2) S^3} = .1509$$

$$G = .1509 (1.0932) = .1650$$

So the adjusted mean, standard deviation and coefficient of skewness are 3.5375 0.4377 and 0.1650

APPENDIX — X

OUTLIER TEST K VALUES

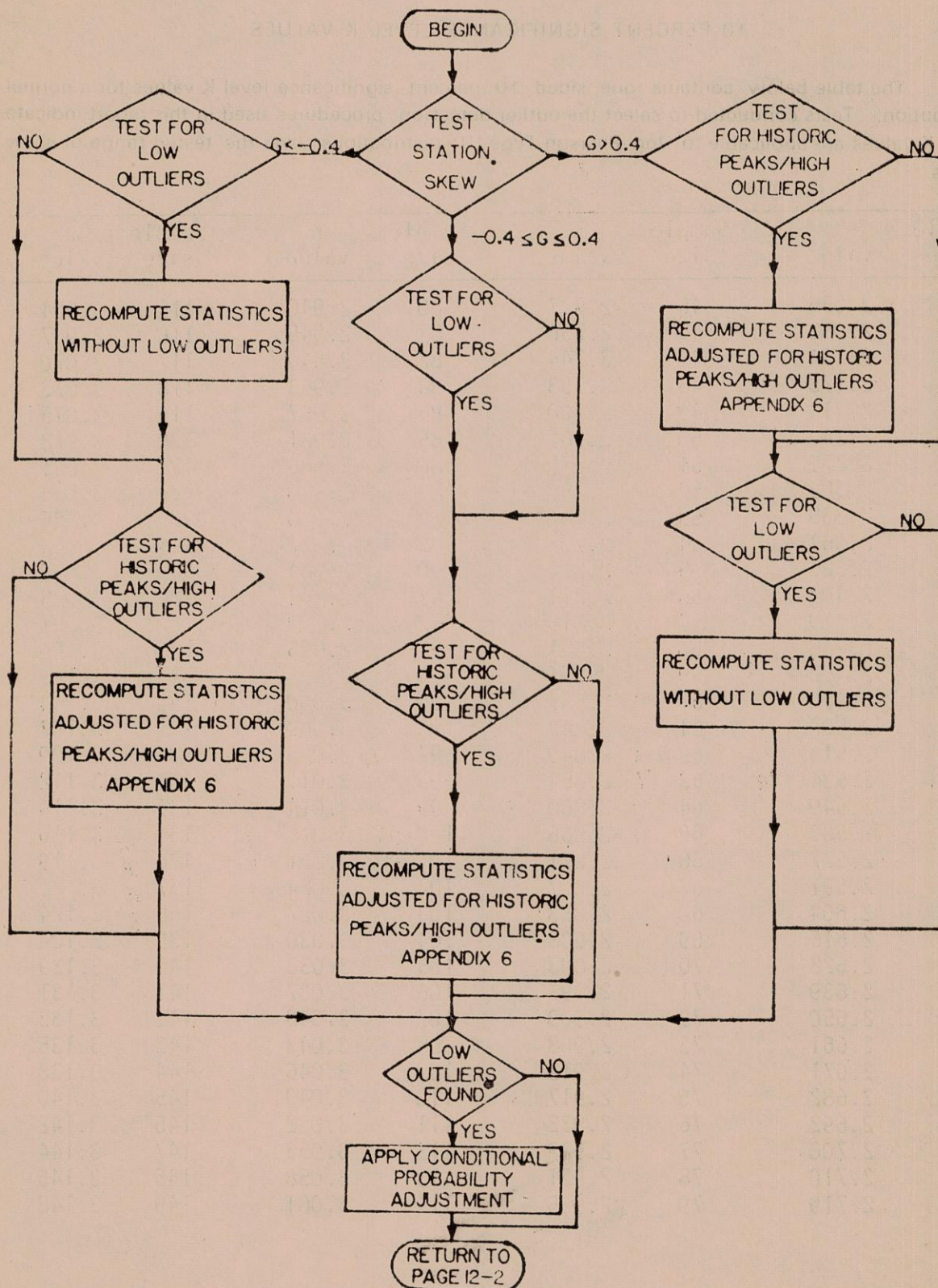
10 PERCENT SIGNIFICANCE LEVEL K VALUES

The table below contains one sided 10 percent significance level K values for a normal distribution. Tests conducted to select the outlier detection procedures used in this report indicate these K values are applicable to log-Pearson Type III distributions over the tested range of skew values.

Sample size	K value	Sample size	K value	Sample size	K value	Sample size	K value
10	2.036	45	2.727	80	2.940	115	3.064
11	2.088	46	2.736	81	2.945	116	3.067
12	2.134	47	2.744	82	2.949	117	3.070
13	2.175	48	2.753	83	2.953	118	3.073
14	2.213	49	2.760	84	2.957	119	3.075
15	2.247	50	2.768	85	2.961	120	3.078
16	2.279	51	2.775	86	2.966	121	3.081
17	2.309	52	2.783	87	2.970	122	3.083
18	2.335	53	2.790	88	2.973	123	3.086
19	2.361	54	2.798	89	2.977	124	3.089
20	2.385	55	2.804	90	2.981	125	3.092
21	2.408	56	2.811	91	2.984	126	3.095
22	2.429	57	2.818	92	2.989	127	3.097
23	2.448	58	2.824	93	2.993	128	3.100
24	2.467	59	2.831	94	2.996	129	3.102
25	2.486	60	2.837	95	3.000	130	3.104
26	2.502	61	2.842	96	3.003	131	3.107
27	2.519	62	2.849	97	3.006	132	3.109
28	2.534	63	2.854	98	3.011	133	3.112
29	2.549	64	2.860	99	3.014	134	3.114
30	2.563	65	2.866	100	3.017	135	3.116
31	2.577	66	2.871	101	3.021	136	3.119
32	2.591	67	2.877	102	3.024	137	3.122
33	2.604	68	2.883	103	3.027	138	3.124
34	2.616	69	2.888	104	3.030	139	3.126
35	2.628	70	2.893	105	3.033	140	3.129
36	2.639	71	2.897	106	3.037	141	3.131
37	2.650	72	2.903	107	3.040	142	3.133
38	2.661	73	2.908	108	3.043	143	3.135
39	2.671	74	2.912	109	3.046	144	3.138
40	2.682	75	2.917	110	3.049	145	3.140
41	2.692	76	2.922	111	3.052	146	3.142
42	2.700	77	2.927	112	3.055	147	3.144
43	2.710	78	2.931	113	3.058	148	3.146
44	2.719	79	2.935	114	3.061	149	3.148

APPENDIX — XI

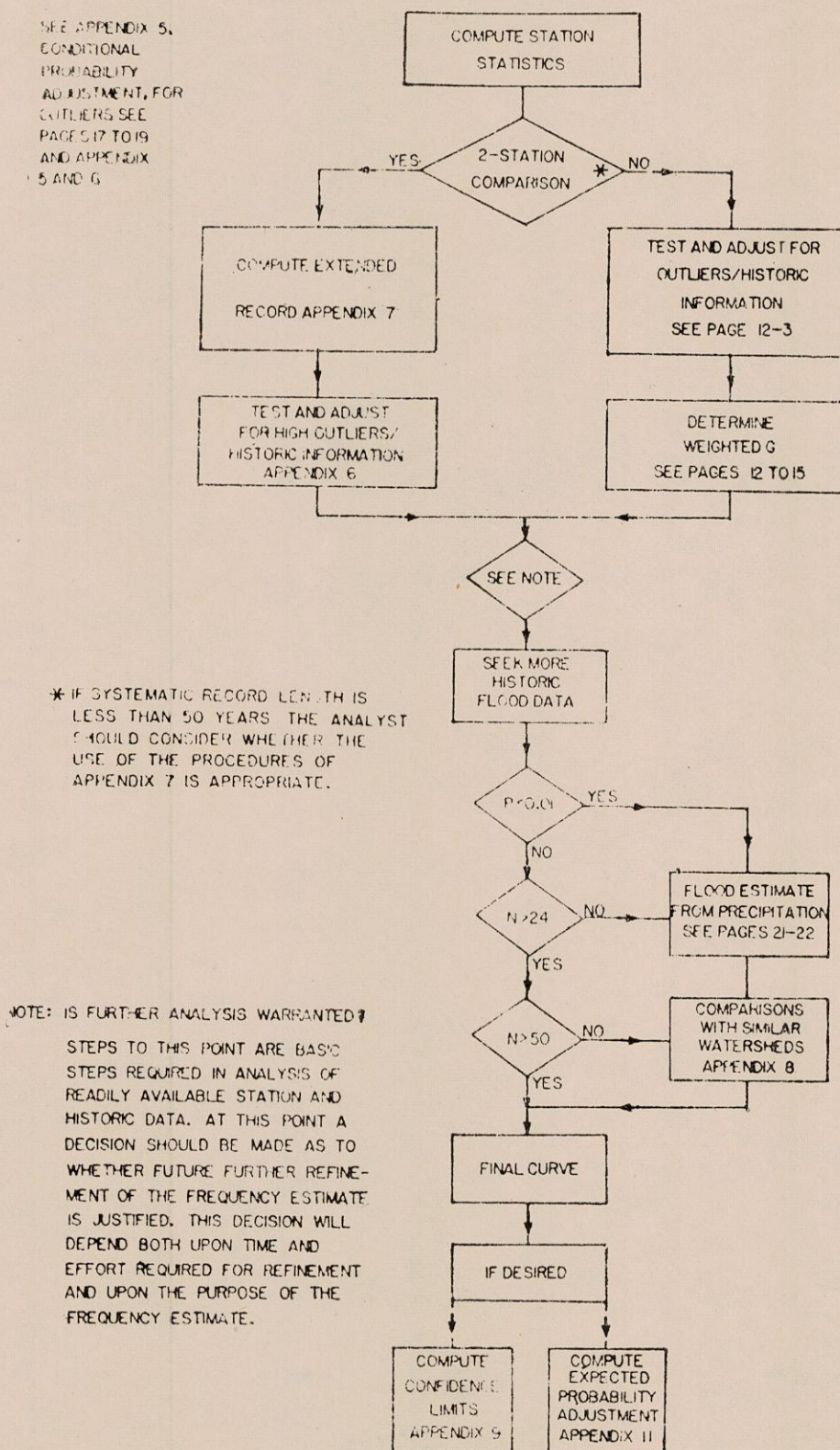
Flow Diagram For Historic and Outlier Adjustment



ZERO FLOOD
OR
INCOMPLETE RECORD

COMPLETE RECORD

SEE APPENDIX 5,
CONDITIONAL
PROBABILITY
ADJUSTMENT, FOR
OUTLIERS SEE
PAGES 17 TO 19
AND APPENDIX
5 AND 6



FLOW DIAGRAM FOR FLOOD FLOW FREQUENCY ANALYSIS