附录 2 附表

附表 1 二项分布表

$$P\{X \le x\} = \sum_{k=0}^{x} \binom{n}{k} p^k (1-p)^{n-k}$$

n	x	p												
		0.001	0.002	0.003	0.005	0.01	0.02	0.03	0.05	0.10	0.15	0.20	0.25	0.30
2	0	0.9980	0.9960	0.9940	0.9900	0.9801	0.9604	0.9409	0.9025	0.8100	0.7225	0.6400	0.5625	0.4900
2	1	1.0000	1.0000	1.0000	1.0000	0.9999	0.9996	0.9991	0.9975	0.9900	0.9775	0.9600	0.9375	0.9100
3	0	0.9970	0.9940	0.9910	0.9851	0.9703	0.9412	0.9127	0.8574	0.7290	0.6141	0.5120	0.4219	0.3430
3	1	1.0000	1.0000	1.0000	0.9999	0.9997	0.9988	0.9974	0.9928	0.9720	0.9393	0.8960	0.8438	0.7840
3	2				1.0000	1.0000	1.0000	1.0000	0.9999	0.9990	0.9966	0.9920	0.9844	0.9730
4	0	0.9960	0.9920	0.9881	0.9801	0.9606	0.9224	0.8853	0.8145	0.6561	0.5220	0.4096	0.3164	0.2401
4	1	1.0000	1.0000	0.9999	0.9999	0.9994	0.9977	0.9948	0.9860	0.9477	0.8905	0.8192	0.7383	0.6517
4	2			1.0000	1.0000	1.0000	1.0000	0.9999	0.9995	0.9963	0.9880	0.9728	0.9492	0.9163
4	3							1.0000	1.0000	0.9999	0.9995	0.9984	0.9961	0.9919
5	0	0.9950	0.9900	0.9851	0.9752	0.9510	0.9039	0.8587	0.7738	0.5905	0.4437	0.3277	0.2373	0.1681
5	1	1.0000	1.0000	0.9999	0.9998	0.9990	0.9962	0.9915	0.9774	0.9185	0.8352	0.7373	0.6328	0.5282
5	2			1.0000	1.0000	1.0000	0.9999	0.9997	0.9988	0.9914	0.9734	0.9421	0.8965	0.8369
5	3						1.0000	1.0000	1.0000	0.9995	0.9978	0.9933	0.9844	0.9692
5	4								1.0000	0.9999	0.9997	0.9990	0.9976
6	0	0.9940	0.9881	0.9821	0.9704	0.9415	0.8858	0.8330	0.7351	0.5314	0.3771	0.2621	0.1780	0.1176
6	1	1.0000	0.9999	0.9999	0.9996	0.9985	0.9943	0.9875	0.9672	0.8857	0.7765	0.6554	0.5339	0.4202
6	2		1.0000	1.0000	1.0000	1.0000	0.9998	0.9995	0.9978	0.9842	0.9527	0.9011	0.8306	0.7443
6	3						1.0000	1.0000	0.9999	0.9987	0.9941	0.9830	0.9624	0.9295
6	4								1.0000	0.9999	0.9996	0.9984	0.9954	0.9891
6	5									1.0000	1.0000	0.9999	0.9998	0.9993
7	0	0.9930	0.9861	0.9792	0.9655	0.9321	0.8681	0.8080	0.6983	0.4783	0.3206	0.2097	0.1335	0.0824
7	1	1.0000	0.9999	0.9998	0.9995	0.9980	0.9921	0.9829	0.9556	0.8503	0.7166	0.5767	0.4449	0.3294
7	2		1.0000	1.0000	1.0000	1.0000	0.9997	0.9991	0.9962	0.9743	0.9262	0.8520	0.7564	0.6471
7	3						1.0000	1.0000	0.9998	0.9973	0.9879	0.9667	0.9294	0.8740
7	4								1.0000	0.9998	0.9988	0.9953	0.9871	0.9712
7	5									1.0000	0.9999	0.9996	0.9987	0.9962
7	6										1.0000	1.0000	0.9999	0.9998
8	0	0.9920	0.9841	0.9763	0.9607	0.9227	0.8508	0.7837	0.6634	0.4305	0.2725	0.1678	0.1001	0.0576
8	1	1.0000	0.9999	0.9998	0.9993	0.9973	0.9897	0.9777	0.9428	0.8131	0.6572	0.5033	0.3671	0.2553
8	2		1.0000	1.0000	1.0000	0.9999	0.9996	0.9987	0.9942	0.9619	0.8948	0.7969	0.6785	0.5518
8	3					1.0000	1.0000	0.9999	0.9996	0.9950	0.9786	0.9437	0.8862	0.8059

n	x													
8	4							1.0000	1.0000	0.9996	0.9971	0.9896	0.9727	0.9420
8	5									1.0000	0.9998	0.9988	0.9958	0.9887
8	6										1.0000	0.9999	0.9996	0.9987
8	7											1.0000	1.0000	0.9999
9	0	0.9910	0.9821	0.9733	0.9559	0.9135	0.8337	0.7602	0.6302	0.3874	0.2316	0.1342	0.0751	0.0404
9	1	1.0000	0.9999	0.9997	0.9991	0.9966	0.9869	0.9718	0.9288	0.7748	0.5995	0.4362	0.3003	0.1960
9	2		1.0000	1.0000	1.0000	0.9999	0.9994	0.9980	0.9916	0.9470	0.8591	0.7382	0.6007	0.4628
9	3					1.0000	1.0000	0.9999	0.9994	0.9917	0.9661	0.9144	0.8343	0.7297
9	4							1.0000	1.0000	0.9991	0.9944	0.9804	0.9511	0.9012
9	5									0.9999	0.9994	0.9969	0.9900	0.9747
9	6									1.0000	1.0000	0.9997	0.9987	0.9957
9	7											1.0000	0.9999	0.9996
9	8												1.0000	1.0000
10	0	0.9900	0.9802	0.9704	0.9511	0.9044	0.8171	0.7374	0.5987	0.3487	0.1969	0.1074	0.0563	0.0282
10	1	1.0000	0.9998	0.9996	0.9989	0.9957	0.9838	0.9655	0.9139	0.7361	0.5443	0.3758	0.2440	0.1493
10	2		1.0000	1.0000	1.0000	0.9999	0.9991	0.9972	0.9885	0.9298	0.8202	0.6778	0.5256	0.3828
10	3					1.0000	1.0000	0.9999	0.9990	0.9872	0.9500	0.8791	0.7759	0.6496
10	4							1.0000	0.9999	0.9984	0.9901	0.9672	0.9219	0.8497
10	5								1.0000	0.9999	0.9986	0.9936	0.9803	0.9527
10	6									1.0000	0.9999	0.9991	0.9965	0.9894
10	7										1.0000	0.9999	0.9996	0.9984
10	8											1.0000	1.0000	0.9999
10	9													1.0000
11	0	0.9891	0.9782	0.9675	0.9464	0.8953	0.8007	0.7153	0.5688	0.3138	0.1673	0.0859	0.0422	0.0198
11	1	0.9999	0.9998	0.9995	0.9987	0.9948	0.9805	0.9587	0.8981	0.6974	0.4922	0.3221	0.1971	0.1130
11	2	1.0000	1.0000	1.0000	1.0000	0.9998	0.9988	0.9963	0.9848	0.9104	0.7788	0.6174	0.4552	0.3127
11	3					1.0000	1.0000	0.9998	0.9984	0.9815	0.9306	0.8389	0.7133	0.5696
11	4							1.0000	0.9999	0.9972	0.9841	0.9496	0.8854	0.7897
11	5								1.0000	0.9997	0.9973	0.9883	0.9657	0.9218
11	6									1.0000	0.9997	0.9980	0.9924	0.9784
11	7										1.0000	0.9998	0.9988	0.9957
11	8											1.0000	0.9999	0.9994
11	9												1.0000	1.0000
12	0	0.9881	0.9763	0.9646	0.9416	0.8864	0.7847	0.6938	0.5404	0.2824	0.1422	0.0687	0.0317	0.0138
12	1	0.9999	0.9997	0.9994	0.9984	0.9938	0.9769	0.9514	0.8816	0.6590	0.4435	0.2749	0.1584	0.0850
12	2	1.0000	1.0000	1.0000	1.0000	0.9998	0.9985	0.9952	0.9804	0.8891	0.7358	0.5583	0.3907	0.2528
12	3					1.0000	0.9999	0.9997	0.9978	0.9744	0.9078	0.7946	0.6488	0.4925
12	4						1.0000	1.0000	0.9998	0.9957	0.9761	0.9274	0.8424	0.7237
12	5								1.0000	0.9995	0.9954	0.9806	0.9456	0.8822
12	6									0.9999	0.9993	0.9961	0.9857	0.9614

12	7									1.0000	0.9999	0.9994	0.9972	0.9905
12	8										1.0000	0.9999	0.9996	0.9983
12	9											1.0000	1.0000	0.9998
12	10													1.0000
13	0	0.9871	0.9743	0.9617	0.9369	0.8775	0.7690	0.6730	0.5133	0.2542	0.1209	0.0550	0.0238	0.0097
13	1	0.9999	0.9997	0.9993	0.9981	0.9928	0.9730	0.9436	0.8646	0.6213	0.3983	0.2336	0.1267	0.0637
13	2	1.0000	1.0000	1.0000	1.0000	0.9997	0.9980	0.9938	0.9755	0.8661	0.6920	0.5017	0.3326	0.2025
13	3					1.0000	0.9999	0.9995	0.9969	0.9658	0.8820	0.7473	0.5843	0.4206
13	4						1.0000	1.0000	0.9997	0.9935	0.9658	0.9009	0.7940	0.6543
13	5								1.0000	0.9991	0.9925	0.9700	0.9198	0.8346
13	6									0.9999	0.9987	0.9930	0.9757	0.9376
13	7									1.0000	0.9998	0.9988	0.9944	0.9818
13	8										1.0000	0.9998	0.9990	0.9960
13	9											1.0000	0.9999	0.9993
13	10												1.0000	0.9999
13	11													1.0000
14	0	0.9861	0.9724	0.9588	0.9322	0.8687	0.7536	0.6528	0.4877	0.2288	0.1028	0.0440	0.0178	0.0068
14	1	0.9999	0.9996	0.9992	0.9978	0.9916	0.9690	0.9355	0.8470	0.5846	0.3567	0.1979	0.1010	0.0475
14	2	1.0000	1.0000	1.0000	1.0000	0.9997	0.9975	0.9923	0.9699	0.8416	0.6479	0.4481	0.2811	0.1608
14	3					1.0000	0.9999	0.9994	0.9958	0.9559	0.8535	0.6982	0.5213	0.3552
14	4						1.0000	1.0000	0.9996	0.9908	0.9533	0.8702	0.7415	0.5842
14	5								1.0000	0.9985	0.9885	0.9561	0.8883	0.7805
14	6									0.9998	0.9978	0.9884	0.9617	0.9067
14	7									1.0000	0.9997	0.9976	0.9897	0.9685
14	8										1.0000	0.9996	0.9978	0.9917
14	9											1.0000	0.9997	0.9983
14	10												1.0000	0.9998
14	11													1.0000
15	0	0.9851	0.9704	0.9559	0.9276	0.8601	0.7386	0.6333	0.4633	0.2059	0.0874	0.0352	0.0134	0.0047
15	1	0.9999	0.9996	0.9991	0.9975	0.9904	0.9647	0.9270	0.8290	0.5490	0.3186	0.1671	0.0802	0.0353
15	2	1.0000	1.0000	1.0000	0.9999	0.9996	0.9970	0.9906	0.9638	0.8159	0.6042	0.3980	0.2361	0.1268
15	3				1.0000	1.0000	0.9998	0.9992	0.9945	0.9444	0.8227	0.6482	0.4613	0.2969
15	4						1.0000	0.9999	0.9994	0.9873	0.9383	0.8358	0.6865	0.5155
15	5							1.0000	0.9999	0.9978	0.9832	0.9389	0.8516	0.7216
15	6								1.0000	0.9997	0.9964	0.9819	0.9434	0.8689
15	7									1.0000	0.9994	0.9958	0.9827	0.9500
15	8										0.9999	0.9992	0.9958	0.9848
15	9										1.0000	0.9999	0.9992	0.9963
15	10											1.0000	0.9999	0.9993
15	11												1.0000	0.9999

n	x													
15	12													1.0000
16	0	0.9841	0.9685	0.9531	0.9229	0.8515	0.7238	0.6143	0.4401	0.1853	0.0743	0.0281	0.0100	0.0033
16	1	0.9999	0.9995	0.9989	0.9971	0.9891	0.9601	0.9182	0.8108	0.5147	0.2839	0.1407	0.0635	0.0261
16	2	1.0000	1.0000	1.0000	0.9999	0.9995	0.9963	0.9887	0.9571	0.7892	0.5614	0.3518	0.1971	0.0994
16	3				1.0000	1.0000	0.9998	0.9989	0.9930	0.9316	0.7899	0.5981	0.4050	0.2459
16	4						1.0000	0.9999	0.9991	0.9830	0.9209	0.7982	0.6302	0.4499
16	5							1.0000	0.9999	0.9967	0.9765	0.9183	0.8103	0.6598
16	6								1.0000	0.9995	0.9944	0.9733	0.9204	0.8247
16	7									0.9999	0.9989	0.9930	0.9729	0.9256
16	8									1.0000	0.9998	0.9985	0.9925	0.9743
16	9										1.0000	0.9998	0.9984	0.9929
16	10											1.0000	0.9997	0.9984
16	11												1.0000	0.9997
16	12													1.0000
17	0	0.9831	0.9665	0.9502	0.9183	0.8429	0.7093	0.5958	0.4181	0.1668	0.0631	0.0225	0.0075	0.0023
17	1	0.9999	0.9995	0.9988	0.9968	0.9877	0.9554	0.9091	0.7922	0.4818	0.2525	0.1182	0.0501	0.0193
17	2	1.0000	1.0000	1.0000	0.9999	0.9994	0.9956	0.9866	0.9497	0.7618	0.5198	0.3096	0.1637	0.0774
17	3				1.0000	1.0000	0.9997	0.9986	0.9912	0.9174	0.7556	0.5489	0.3530	0.2019
17	4						1.0000	0.9999	0.9988	0.9779	0.9013	0.7582	0.5739	0.3887
17	5							1.0000	0.9999	0.9953	0.9681	0.8943	0.7653	0.5968
17	6								1.0000	0.9992	0.9917	0.9623	0.8929	0.7752
17	7									0.9999	0.9983	0.9891	0.9598	0.8954
17	8									1.0000	0.9997	0.9974	0.9876	0.9597
17	9										1.0000	0.9995	0.9969	0.9873
17	10										1.0000	0.9999	0.9994	0.9968
17	11											1.0000	0.9999	0.9993
17	12												1.0000	0.9999
17	13													1.0000
18	0	0.9822	0.9646	0.9474	0.9137	0.8345	0.6951	0.5780	0.3972	0.1501	0.0536	0.0180	0.0056	0.0016
18	1	0.9998	0.9994	0.9987	0.9964	0.9862	0.9505	0.8997	0.7735	0.4503	0.2241	0.0991	0.0395	0.0142
18	2	1.0000	1.0000	1.0000	0.9999	0.9993	0.9948	0.9843	0.9419	0.7338	0.4797	0.2713	0.1353	0.0600
18	3				1.0000	1.0000	0.9996	0.9982	0.9891	0.9018	0.7202	0.5010	0.3057	0.1646
18	4						1.0000	0.9998	0.9985	0.9718	0.8794	0.7164	0.5187	0.3327
18	5							1.0000	0.9998	0.9936	0.9581	0.8671	0.7175	0.5344
18	6								1.0000	0.9988	0.9882	0.9487	0.8610	0.7217
18	7									0.9998	0.9973	0.9837	0.9431	0.8593
18	8									1.0000	0.9995	0.9957	0.9807	0.9404
18	9										0.9999	0.9991	0.9946	0.9790
18	10										1.0000	0.9998	0.9988	0.9939
18	11											1.0000	0.9998	0.9986

n	x													
18	12												1.0000	0.9997
18	13													1.0000
19	0	0.9812	0.9627	0.9445	0.9092	0.8262	0.6812	0.5606	0.3774	0.1351	0.0456	0.0144	0.0042	0.0011
19	1	0.9998	0.9993	0.9985	0.9960	0.9847	0.9454	0.8900	0.7547	0.4203	0.1985	0.0829	0.0310	0.0104
19	2	1.0000	1.0000	1.0000	0.9999	0.9991	0.9939	0.9817	0.9335	0.7054	0.4413	0.2369	0.1113	0.0462
19	3				1.0000	1.0000	0.9995	0.9978	0.9868	0.8850	0.6841	0.4551	0.2631	0.1332
19	4						1.0000	0.9998	0.9980	0.9648	0.8556	0.6733	0.4654	0.2822
19	5							1.0000	0.9998	0.9914	0.9463	0.8369	0.6678	0.4739
19	6								1.0000	0.9983	0.9837	0.9324	0.8251	0.6655
19	7									0.9997	0.9959	0.9767	0.9225	0.8180
19	8									1.0000	0.9992	0.9933	0.9713	0.9161
19	9										0.9999	0.9984	0.9911	0.9674
19	10										1.0000	0.9997	0.9977	0.9895
19	11											1.0000	0.9995	0.9972
19	12												0.9999	0.9994
19	13												1.0000	0.9999
19	14													1.0000
20	0	0.9802	0.9608	0.9417	0.9046	0.8179	0.6676	0.5438	0.3585	0.1216	0.0388	0.0115	0.0032	0.0008
20	1	0.9998	0.9993	0.9984	0.9955	0.9831	0.9401	0.8802	0.7358	0.3917	0.1756	0.0692	0.0243	0.0076
20	2	1.0000	1.0000	1.0000	0.9999	0.9990	0.9929	0.9790	0.9245	0.6769	0.4049	0.2061	0.0913	0.0355
20	3				1.0000	1.0000	0.9994	0.9973	0.9841	0.8670	0.6477	0.4114	0.2252	0.1071
20	4						1.0000	0.9997	0.9974	0.9568	0.8298	0.6296	0.4148	0.2375
20	5							1.0000	0.9997	0.9887	0.9327	0.8042	0.6172	0.4164
20	6								1.0000	0.9976	0.9781	0.9133	0.7858	0.6080
20	7									0.9996	0.9941	0.9679	0.8982	0.7723
20	8									0.9999	0.9987	0.9900	0.9591	0.8867
20	9									1.0000	0.9998	0.9974	0.9861	0.9520
20	10										1.0000	0.9994	0.9961	0.9829
20	11											0.9999	0.9991	0.9949
20	12											1.0000	0.9998	0.9987
20	13												1.0000	0.9997
20	14													1.0000
25	0	0.9753	0.9512	0.9276	0.8822	0.7778	0.6035	0.4670	0.2774	0.0718	0.0172	0.0038	0.0008	0.0001
25	1	0.9997	0.9988	0.9974	0.9931	0.9742	0.9114	0.8280	0.6424	0.2712	0.0931	0.0274	0.0070	0.0016
25	2	1.0000	1.0000	0.9999	0.9997	0.9980	0.9868	0.9620	0.8729	0.5371	0.2537	0.0982	0.0321	0.0090
25	3			1.0000	1.0000	0.9999	0.9986	0.9938	0.9659	0.7636	0.4711	0.2340	0.0962	0.0332
25	4					1.0000	0.9999	0.9992	0.9928	0.9020	0.6821	0.4207	0.2137	0.0905
25	5						1.0000	0.9999	0.9988	0.9666	0.8385	0.6167	0.3783	0.1935
25	6							1.0000	0.9998	0.9905	0.9305	0.7800	0.5611	0.3407
25	7								1.0000	0.9977	0.9745	0.8909	0.7265	0.5118

25	8									0.9995	0.9920	0.9532	0.8506	0.6769
25	9									0.9999	0.9979	0.9827	0.9287	0.8106
25	10									1.0000	0.9995	0.9944	0.9703	0.9022
25	11										0.9999	0.9985	0.9893	0.9558
25	12										1.0000	0.9996	0.9966	0.9825
25	13											0.9999	0.9991	0.9940
25	14											1.0000	0.9998	0.9982
25	15												1.0000	0.9995
25	16													0.9999
25	17													1.0000
30	0	0.9704	0.9417	0.9138	0.8604	0.7397	0.5455	0.4010	0.2146	0.0424	0.0076	0.0012	0.0002	0.0000
30	1	0.9996	0.9983	0.9963	0.9901	0.9639	0.8795	0.7731	0.5535	0.1837	0.0480	0.0105	0.0020	0.0003
30	2	1.0000	1.0000	0.9999	0.9995	0.9967	0.9783	0.9399	0.8122	0.4114	0.1514	0.0442	0.0106	0.0021
30	3			1.0000	1.0000	0.9998	0.9971	0.9881	0.9392	0.6474	0.3217	0.1227	0.0374	0.0093
30	4					1.0000	0.9997	0.9982	0.9844	0.8245	0.5245	0.2552	0.0979	0.0302
30	5						1.0000	0.9998	0.9967	0.9268	0.7106	0.4275	0.2026	0.0766
30	6							1.0000	0.9994	0.9742	0.8474	0.6070	0.3481	0.1595
30	7								0.9999	0.9922	0.9302	0.7608	0.5143	0.2814
30	8								1.0000	0.9980	0.9722	0.8713	0.6736	0.4315
30	9									0.9995	0.9903	0.9389	0.8034	0.5888
30	10									0.9999	0.9971	0.9744	0.8943	0.7304
30	11									1.0000	0.9992	0.9905	0.9493	0.8407
30	12										0.9998	0.9969	0.9784	0.9155
30	13										1.0000	0.9991	0.9918	0.9599
30	14											0.9998	0.9973	0.9831
30	15											0.9999	0.9992	0.9936
30	16											1.0000	0.9998	0.9979
30	17												0.9999	0.9994
30	18												1.0000	0.9998
30	19													1.0000

附表 2　泊松分布表

$$1-F(x-1)=\sum_{k=x}^{\infty}\frac{\lambda^k}{k!}\mathrm{e}^{-\lambda}$$

x	$\lambda=0.1$	$\lambda=0.2$	$\lambda=0.3$	$\lambda=0.4$	$\lambda=0.5$	$\lambda=0.6$	$\lambda=0.7$
0	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000
1	0.095163	0.181269	0.259182	0.329680	0.393469	0.451188	0.503415

x							
2	0. 004679	0. 017523	0. 036936	0. 061552	0. 090204	0. 121901	0. 155805
3	0. 000155	0. 001148	0. 003599	0. 007926	0. 014388	0. 023115	0. 034142
4	0. 000004	0. 000057	0. 000266	0. 000776	0. 001752	0. 003358	0. 005753
5	0. 000000	0. 000002	0. 000016	0. 000061	0. 000172	0. 000394	0. 000786
6	0. 000000	0. 000000	0. 000001	0. 000004	0. 000014	0. 000039	0. 000090
7	0. 000000	0. 000000	0. 000000	0. 000000	0. 000001	0. 000003	0. 000009
8	0. 000000	0. 000000	0. 000000	0. 000000	0. 000000	0. 000000	0. 000001
x	$\lambda =0.8$	$\lambda =0.9$	$\lambda =1.0$	$\lambda =1.2$	$\lambda =1.4$	$\lambda =1.6$	$\lambda =1.8$
0	1. 000000	1. 000000	1. 000000	1. 000000	1. 000000	1. 000000	1. 000000
1	0. 550671	0. 593430	0. 632121	0. 698806	0. 753403	0. 798103	0. 834701
2	0. 191208	0. 227518	0. 264241	0. 337373	0. 408167	0. 475069	0. 537163
3	0. 047423	0. 062857	0. 080301	0. 120513	0. 166502	0. 216642	0. 269379
4	0. 009080	0. 013459	0. 018988	0. 033769	0. 053725	0. 078813	0. 108708
5	0. 001411	0. 002344	0. 003660	0. 007746	0. 014253	0. 023682	0. 036407
6	0. 000184	0. 000343	0. 000594	0. 001500	0. 003201	0. 006040	0. 010378
7	0. 000021	0. 000043	0. 000083	0. 000251	0. 000622	0. 001336	0. 002569
8	0. 000002	0. 000005	0. 000010	0. 000037	0. 000107	0. 000260	0. 000562
9	0. 000000	0. 000000	0. 000001	0. 000005	0. 000016	0. 000045	0. 000110
10	0. 000000	0. 000000	0. 000000	0. 000001	0. 000002	0. 000007	0. 000019
11	0. 000000	0. 000000	0. 000000	0. 000000	0. 000000	0. 000001	0. 000003
x	$\lambda =2.0$	$\lambda =2.5$	$\lambda =3.0$	$\lambda =3.5$	$\lambda =4.0$	$\lambda =4.5$	$\lambda =5.0$
0	1. 000000	1. 000000	1. 000000	1. 000000	1. 000000	1. 000000	1. 000000
1	0. 864665	0. 917915	0. 950213	0. 969803	0. 981684	0. 988891	0. 993262
2	0. 593994	0. 712703	0. 800852	0. 864112	0. 908422	0. 938901	0. 959572
3	0. 323324	0. 456187	0. 576810	0. 679153	0. 761897	0. 826422	0. 875348
4	0. 142877	0. 242424	0. 352768	0. 463367	0. 566530	0. 657704	0. 734974
5	0. 052653	0. 108822	0. 184737	0. 274555	0. 371163	0. 467896	0. 559507
6	0. 016564	0. 042021	0. 083918	0. 142386	0. 214870	0. 297070	0. 384039
7	0. 004534	0. 014187	0. 033509	0. 065288	0. 110674	0. 168949	0. 237817
8	0. 001097	0. 004247	0. 011905	0. 026739	0. 051134	0. 086586	0. 133372
9	0. 000237	0. 001140	0. 003803	0. 009874	0. 021363	0. 040257	0. 068094
10	0. 000046	0. 000277	0. 001102	0. 003315	0. 008132	0. 017093	0. 031828
11	0. 000008	0. 000062	0. 000292	0. 001019	0. 002840	0. 006669	0. 013695
12	0. 000001	0. 000013	0. 000071	0. 000289	0. 000915	0. 002404	0. 005453
13	0. 000000	0. 000002	0. 000016	0. 000076	0. 000274	0. 000805	0. 002019
14	0. 000000	0. 000000	0. 000003	0. 000019	0. 000076	0. 000252	0. 000698
15	0. 000000	0. 000000	0. 000001	0. 000004	0. 000020	0. 000074	0. 000226
16	0. 000000	0. 000000	0. 000000	0. 000001	0. 000005	0. 000020	0. 000069
17	0. 000000	0. 000000	0. 000000	0. 000000	0. 000001	0. 000005	0. 000020
18	0. 000000	0. 000000	0. 000000	0. 000000	0. 000000	0. 000001	0. 000005

| 19 | 0. 000000 | 0. 000000 | 0. 000000 | 0. 000000 | 0. 000000 | 0. 000000 | 0. 000001 |

附表 3　标准正态分布表

$$\Phi(x) = \int_{-\infty}^{x} \frac{1}{\sqrt{2\pi}} e^{-t^2/2} \, \mathrm{d}t$$

x	0	1	2	3	4	5	6	7	8	9
0.0	0.5000	0.5040	0.5080	0.5120	0.5160	0.5199	0.5239	0.5279	0.5319	0.5359
0.1	0.5398	0.5438	0.5478	0.5517	0.5557	0.5596	0.5636	0.5675	0.5714	0.5753
0.2	0.5793	0.5832	0.5871	0.5910	0.5948	0.5987	0.6026	0.6064	0.6103	0.6141
0.3	0.6179	0.6217	0.6255	0.6293	0.6331	0.6368	0.6406	0.6443	0.6480	0.6517
0.4	0.6554	0.6591	0.6628	0.6664	0.6700	0.6736	0.6772	0.6808	0.6844	0.6879
0.5	0.6915	0.6950	0.6985	0.7019	0.7054	0.7088	0.7123	0.7157	0.7190	0.7224
0.6	0.7257	0.7291	0.7324	0.7357	0.7389	0.7422	0.7454	0.7486	0.7517	0.7549
0.7	0.7580	0.7611	0.7642	0.7673	0.7704	0.7734	0.7764	0.7794	0.7823	0.7852
0.8	0.7881	0.7910	0.7939	0.7967	0.7995	0.8023	0.8051	0.8078	0.8106	0.8133
0.9	0.8159	0.8186	0.8212	0.8238	0.8264	0.8289	0.8315	0.8340	0.8365	0.8389
1.0	0.8413	0.8438	0.8461	0.8485	0.8508	0.8531	0.8554	0.8577	0.8599	0.8621
1.1	0.8643	0.8665	0.8686	0.8708	0.8729	0.8749	0.8770	0.8790	0.8810	0.8830
1.2	0.8849	0.8869	0.8888	0.8907	0.8925	0.8944	0.8962	0.8980	0.8997	0.9015
1.3	0.9032	0.9049	0.9066	0.9082	0.9099	0.9115	0.9131	0.9147	0.9162	0.9177
1.4	0.9192	0.9207	0.9222	0.9236	0.9251	0.9265	0.9279	0.9292	0.9306	0.9319
1.5	0.9332	0.9345	0.9357	0.9370	0.9382	0.9394	0.9406	0.9418	0.9429	0.9441
1.6	0.9452	0.9463	0.9474	0.9484	0.9495	0.9505	0.9515	0.9525	0.9535	0.9545
1.7	0.9554	0.9564	0.9573	0.9582	0.9591	0.9599	0.9608	0.9616	0.9625	0.9633
1.8	0.9641	0.9649	0.9656	0.9664	0.9671	0.9678	0.9686	0.9693	0.9699	0.9706
1.9	0.9713	0.9719	0.9726	0.9732	0.9738	0.9744	0.9750	0.9756	0.9761	0.9767
2.0	0.9772	0.9778	0.9783	0.9788	0.9793	0.9798	0.9803	0.9808	0.9812	0.9817
2.1	0.9821	0.9826	0.9830	0.9834	0.9838	0.9842	0.9846	0.9850	0.9854	0.9857
2.2	0.9861	0.9864	0.9868	0.9871	0.9875	0.9878	0.9881	0.9884	0.9887	0.9890
2.3	0.9893	0.9896	0.9898	0.9901	0.9904	0.9906	0.9909	0.9911	0.9913	0.9916
2.4	0.9918	0.9920	0.9922	0.9925	0.9927	0.9929	0.9931	0.9932	0.9934	0.9936
2.5	0.9938	0.9940	0.9941	0.9943	0.9945	0.9946	0.9948	0.9949	0.9951	0.9952
2.6	0.9953	0.9955	0.9956	0.9957	0.9959	0.9960	0.9961	0.9962	0.9963	0.9964
2.7	0.9965	0.9966	0.9967	0.9968	0.9969	0.9970	0.9971	0.9972	0.9973	0.9974
2.8	0.9974	0.9975	0.9976	0.9977	0.9977	0.9978	0.9979	0.9979	0.9980	0.9981
2.9	0.9981	0.9982	0.9982	0.9983	0.9984	0.9984	0.9985	0.9985	0.9986	0.9986
3.	0.9987	0.9990	0.9993	0.9995	0.9997	0.9998	0.9998	0.9999	0.9999	1.0000

注：表中末行为函数值 $\Phi(3.0), \Phi(3.1), \cdots, \Phi(3.9)$.

附表 4 t 分布表

$$P\{t(n) > t_\alpha(n)\} = \alpha$$

n	α =0.25	α =0.1	α =0.05	α =0.025	α =0.01	α =0.005
1	1.0000	3.0777	6.3138	12.7062	31.8205	63.6567
2	0.8165	1.8856	2.9200	4.3027	6.9646	9.9248
3	0.7649	1.6377	2.3534	3.1824	4.5407	5.8409
4	0.7407	1.5332	2.1318	2.7764	3.7469	4.6041
5	0.7267	1.4759	2.0150	2.5706	3.3649	4.0321
6	0.7176	1.4398	1.9432	2.4469	3.1427	3.7074
7	0.7111	1.4149	1.8946	2.3646	2.9980	3.4995
8	0.7064	1.3968	1.8595	2.3060	2.8965	3.3554
9	0.7027	1.3830	1.8331	2.2622	2.8214	3.2498
10	0.6998	1.3722	1.8125	2.2281	2.7638	3.1693
11	0.6974	1.3634	1.7959	2.2010	2.7181	3.1058
12	0.6955	1.3562	1.7823	2.1788	2.6810	3.0545
13	0.6938	1.3502	1.7709	2.1604	2.6503	3.0123
14	0.6924	1.3450	1.7613	2.1448	2.6245	2.9768
15	0.6912	1.3406	1.7531	2.1314	2.6025	2.9467
16	0.6901	1.3368	1.7459	2.1199	2.5835	2.9208
17	0.6892	1.3334	1.7396	2.1098	2.5669	2.8982
18	0.6884	1.3304	1.7341	2.1009	2.5524	2.8784
19	0.6876	1.3277	1.7291	2.0930	2.5395	2.8609
20	0.6870	1.3253	1.7247	2.0860	2.5280	2.8453
21	0.6864	1.3232	1.7207	2.0796	2.5176	2.8314
22	0.6858	1.3212	1.7171	2.0739	2.5083	2.8188
23	0.6853	1.3195	1.7139	2.0687	2.4999	2.8073
24	0.6848	1.3178	1.7109	2.0639	2.4922	2.7969
25	0.6844	1.3163	1.7081	2.0595	2.4851	2.7874
26	0.6840	1.3150	1.7056	2.0555	2.4786	2.7787
27	0.6837	1.3137	1.7033	2.0518	2.4727	2.7707
28	0.6834	1.3125	1.7011	2.0484	2.4671	2.7633
29	0.6830	1.3114	1.6991	2.0452	2.4620	2.7564
30	0.6828	1.3104	1.6973	2.0423	2.4573	2.7500
31	0.6825	1.3095	1.6955	2.0395	2.4528	2.7440
32	0.6822	1.3086	1.6939	2.0369	2.4487	2.7385
33	0.6820	1.3077	1.6924	2.0345	2.4448	2.7333
34	0.6818	1.3070	1.6909	2.0322	2.4411	2.7284
35	0.6816	1.3062	1.6896	2.0301	2.4377	2.7238
36	0.6814	1.3055	1.6883	2.0281	2.4345	2.7195
37	0.6812	1.3049	1.6871	2.0262	2.4314	2.7154
38	0.6810	1.3042	1.6860	2.0244	2.4286	2.7116
39	0.6808	1.3036	1.6849	2.0227	2.4258	2.7079
40	0.6807	1.3031	1.6839	2.0211	2.4233	2.7045
41	0.6805	1.3025	1.6829	2.0195	2.4208	2.7012
42	0.6804	1.3020	1.6820	2.0181	2.4185	2.6981
43	0.6802	1.3016	1.6811	2.0167	2.4163	2.6951
44	0.6801	1.3011	1.6802	2.0154	2.4141	2.6923
45	0.6800	1.3006	1.6794	2.0141	2.4121	2.6896

附表5 χ^2分布表

$$P\left\{\chi^2(n) > \chi^2_\alpha(n)\right\} = \alpha$$

n	α =0.995	0.99	0.975	0.95	0.90	0.75
1	0.0000	0.0002	0.0010	0.0039	0.0158	0.1015
2	0.0100	0.0201	0.0506	0.1026	0.2107	0.5754
3	0.0717	0.1148	0.2158	0.3518	0.5844	1.2125
4	0.2070	0.2971	0.4844	0.7107	1.0636	1.9226
5	0.4118	0.5543	0.8312	1.1455	1.6103	2.6746
6	0.6757	0.8721	1.2373	1.6354	2.2041	3.4546
7	0.9893	1.2390	1.6899	2.1673	2.8331	4.2549
8	1.3444	1.6465	2.1797	2.7326	3.4895	5.0706
9	1.7349	2.0879	2.7004	3.3251	4.1682	5.8988
10	2.1558	2.5582	3.2470	3.9403	4.8652	6.7372
11	2.6032	3.0535	3.8157	4.5748	5.5778	7.5841
12	3.0738	3.5706	4.4038	5.2260	6.3038	8.4384
13	3.5650	4.1069	5.0087	5.8919	7.0415	9.2991
14	4.0747	4.6604	5.6287	6.5706	7.7895	10.1653
15	4.6009	5.2294	6.2621	7.2609	8.5468	11.0365
16	5.1422	5.8122	6.9077	7.9616	9.3122	11.9122
17	5.6973	6.4077	7.5642	8.6718	10.0852	12.7919
18	6.2648	7.0149	8.2307	9.3904	10.8649	13.6753
19	6.8439	7.6327	8.9065	10.1170	11.6509	14.5620
20	7.4338	8.2604	9.5908	10.8508	12.4426	15.4518
21	8.0336	8.8972	10.2829	11.5913	13.2396	16.3444
22	8.6427	9.5425	10.9823	12.3380	14.0415	17.2396
23	9.2604	10.1957	11.6885	13.0905	14.8480	18.1373
24	9.8862	10.8563	12.4011	13.8484	15.6587	19.0373
25	10.5196	11.5240	13.1197	14.6114	16.4734	19.9393
26	11.1602	12.1982	13.8439	15.3792	17.2919	20.8434
27	11.8077	12.8785	14.5734	16.1514	18.1139	21.7494
28	12.4613	13.5647	15.3079	16.9279	18.9392	22.6572
29	13.1211	14.2564	16.0471	17.7084	19.7677	23.5666
30	13.7867	14.9535	16.7908	18.4927	20.5992	24.4776
31	14.4577	15.6555	17.5387	19.2806	21.4336	25.3901
32	15.1340	16.3622	18.2908	20.0719	22.2706	26.3041
33	15.8152	17.0735	19.0467	20.8665	23.1102	27.2194
34	16.5013	17.7891	19.8062	21.6643	23.9522	28.1361
35	17.1917	18.5089	20.5694	22.4650	24.7966	29.0540
36	17.8868	19.2326	21.3359	23.2686	25.6433	29.9730
37	18.5859	19.9603	22.1056	24.0749	26.4921	30.8933
38	19.2888	20.6914	22.8785	24.8839	27.3430	31.8146
39	19.9958	21.4261	23.6543	25.6954	28.1958	32.7369
40	20.7066	22.1642	24.4331	26.5093	29.0505	33.6603
41	21.4208	22.9056	25.2145	27.3256	29.9071	34.5846
42	22.1384	23.6501	25.9987	28.1440	30.7654	35.5099
43	22.8596	24.3976	26.7854	28.9647	31.6255	36.4361
44	23.5836	25.1480	27.5745	29.7875	32.4871	37.3631
45	24.3110	25.9012	28.3662	30.6123	33.3504	38.2910

n	α =0.25	0.1	0.05	0.025	0.01	0.005
1	1. 3233	2. 7055	3. 8415	5. 0239	6. 6349	7. 8794
2	2. 7726	4. 6052	5. 9915	7. 3778	9. 2104	10. 5965
3	4. 1083	6. 2514	7. 8147	9. 3484	11. 3449	12. 8381
4	5. 3853	7. 7794	9. 4877	11. 1433	13. 2767	14. 8602
5	6. 6257	9. 2363	11. 0705	12. 8325	15. 0863	16. 7496
6	7. 8408	10. 6446	12. 5916	14. 4494	16. 8119	18. 5475
7	9. 0371	12. 0170	14. 0671	16. 0128	18. 4753	20. 2777
8	10. 2189	13. 3616	15. 5073	17. 5345	20. 0902	21. 9549
9	11. 3887	14. 6837	16. 9190	19. 0228	21. 6660	23. 5893
10	12. 5489	15. 9872	18. 3070	20. 4832	23. 2093	25. 1881
11	13. 7007	17. 2750	19. 6752	21. 9200	24. 7250	26. 7569
12	14. 8454	18. 5493	21. 0261	23. 3367	26. 2170	28. 2997
13	15. 9839	19. 8119	22. 3620	24. 7356	27. 6882	29. 8193
14	17. 1169	21. 0641	23. 6848	26. 1189	29. 1412	31. 3194
15	18. 2451	22. 3071	24. 9958	27. 4884	30. 5780	32. 8015
16	19. 3689	23. 5418	26. 2962	28. 8453	31. 9999	34. 2671
17	20. 4887	24. 7690	27. 5871	30. 1910	33. 4087	35. 7184
18	21. 6049	25. 9894	28. 8693	31. 5264	34. 8052	37. 1564
19	22. 7178	27. 2036	30. 1435	32. 8523	36. 1908	38. 5821
20	23. 8277	28. 4120	31. 4104	34. 1696	37. 5663	39. 9969
21	24. 9348	29. 6151	32. 6706	35. 4789	38. 9322	41. 4009
22	26. 0393	30. 8133	33. 9245	36. 7807	40. 2894	42. 7957
23	27. 1413	32. 0069	35. 1725	38. 0756	41. 6383	44. 1814
24	28. 2412	33. 1962	36. 4150	39. 3641	42. 9798	45. 5584
25	29. 3388	34. 3816	37. 6525	40. 6465	44. 3140	46. 9280
26	30. 4346	35. 5632	38. 8851	41. 9231	45. 6416	48. 2898
27	31. 5284	36. 7412	40. 1133	43. 1945	46. 9628	49. 6450
28	32. 6205	37. 9159	41. 3372	44. 4608	48. 2782	50. 9936
29	33. 7109	39. 0875	42. 5569	45. 7223	49. 5878	52. 3355
30	34. 7997	40. 2560	43. 7730	46. 9792	50. 8922	53. 6719
31	35. 8871	41. 4217	44. 9853	48. 2319	52. 1914	55. 0025
32	36. 9730	42. 5847	46. 1942	49. 4804	53. 4857	56. 3280
33	38. 0575	43. 7452	47. 3999	50. 7251	54. 7754	57. 6483
34	39. 1408	44. 9032	48. 6024	51. 9660	56. 0609	58. 9637
35	40. 2228	46. 0588	49. 8018	53. 2033	57. 3420	60. 2746
36	41. 3036	47. 2122	50. 9985	54. 4373	58. 6192	61. 5811
37	42. 3833	48. 3634	52. 1923	55. 6680	59. 8926	62. 8832
38	43. 4619	49. 5126	53. 3835	56. 8955	61. 1620	64. 1812
39	44. 5395	50. 6598	54. 5722	58. 1201	62. 4281	65. 4753
40	45. 6160	51. 8050	55. 7585	59. 3417	63. 6908	66. 7660
41	46. 6916	52. 9485	56. 9424	60. 5606	64. 9500	68. 0526
42	47. 7662	54. 0902	58. 1240	61. 7767	66. 2063	69. 3360
43	48. 8400	55. 2302	59. 3035	62. 9903	67. 4593	70. 6157
44	49. 9129	56. 3685	60. 4809	64. 2014	68. 7096	71. 8923
45	50. 9849	57. 5053	61. 6562	65. 4101	69. 9569	73. 1660

附表 6　*F* 分布表

α =0.25

n_1 / n_2	1	2	3	4	5	6	7	8	9	10	12	15	20	24	30	40	60	120	∞
1	5.83	7.50	8.20	8.58	8.82	8.98	9.10	9.19	9.26	9.32	9.41	9.49	9.58	9.63	9.67	9.71	9.76	9.80	9.85
2	2.57	3.00	3.15	3.23	3.28	3.31	3.34	3.35	3.37	3.38	3.39	3.41	3.43	3.43	3.44	3.45	3.46	3.47	3.48
3	2.02	2.28	2.36	2.39	2.41	2.42	2.43	2.44	2.44	2.44	2.45	2.46	2.46	2.46	2.47	2.47	2.47	2.47	2.47
4	1.81	2.00	2.05	2.06	2.07	2.08	2.08	2.08	2.08	2.08	2.08	2.08	2.08	2.08	2.08	2.08	2.08	2.08	2.08
5	1.69	1.85	1.88	1.89	1.89	1.89	1.89	1.89	1.89	1.89	1.89	1.89	1.88	1.88	1.88	1.88	1.87	1.87	1.87
6	1.62	1.76	1.78	1.79	1.79	1.78	1.78	1.78	1.77	1.77	1.77	1.76	1.76	1.75	1.75	1.75	1.74	1.74	1.74
7	1.57	1.70	1.72	1.72	1.71	1.71	1.70	1.70	1.69	1.69	1.68	1.68	1.67	1.67	1.66	1.66	1.65	1.65	1.65
8	1.54	1.66	1.67	1.66	1.66	1.65	1.64	1.64	1.63	1.63	1.62	1.62	1.61	1.60	1.60	1.59	1.59	1.58	1.58
9	1.51	1.62	1.63	1.63	1.62	1.61	1.60	1.60	1.59	1.59	1.58	1.57	1.56	1.56	1.55	1.54	1.54	1.53	1.53
10	1.49	1.60	1.60	1.59	1.59	1.58	1.57	1.56	1.56	1.55	1.54	1.53	1.52	1.52	1.51	1.51	1.50	1.49	1.48
11	1.47	1.58	1.58	1.57	1.56	1.55	1.54	1.53	1.53	1.52	1.51	1.50	1.49	1.49	1.48	1.47	1.47	1.46	1.45
12	1.46	1.56	1.56	1.55	1.54	1.53	1.52	1.51	1.51	1.50	1.49	1.48	1.47	1.46	1.45	1.45	1.44	1.43	1.42
13	1.45	1.55	1.55	1.53	1.52	1.51	1.50	1.49	1.49	1.48	1.47	1.46	1.45	1.44	1.43	1.42	1.42	1.41	1.40
14	1.44	1.53	1.53	1.52	1.51	1.50	1.49	1.48	1.47	1.46	1.45	1.44	1.43	1.42	1.41	1.41	1.40	1.39	1.38
15	1.43	1.52	1.52	1.51	1.49	1.48	1.47	1.46	1.46	1.45	1.44	1.43	1.41	1.41	1.40	1.39	1.38	1.37	1.36
16	1.42	1.51	1.51	1.50	1.48	1.47	1.46	1.45	1.44	1.44	1.43	1.41	1.40	1.39	1.38	1.37	1.36	1.35	1.34
17	1.42	1.51	1.50	1.49	1.47	1.46	1.45	1.44	1.43	1.43	1.41	1.40	1.39	1.38	1.37	1.36	1.35	1.34	1.33
18	1.41	1.50	1.49	1.48	1.46	1.45	1.44	1.43	1.42	1.42	1.40	1.39	1.38	1.37	1.36	1.35	1.34	1.33	1.32
19	1.41	1.49	1.49	1.47	1.46	1.44	1.43	1.42	1.41	1.41	1.40	1.38	1.37	1.36	1.35	1.34	1.33	1.32	1.30
20	1.40	1.49	1.48	1.47	1.45	1.44	1.43	1.42	1.41	1.40	1.39	1.37	1.36	1.35	1.34	1.33	1.32	1.31	1.29
21	1.40	1.48	1.48	1.46	1.44	1.43	1.42	1.41	1.40	1.39	1.38	1.37	1.35	1.34	1.33	1.32	1.31	1.30	1.28
22	1.40	1.48	1.47	1.45	1.44	1.42	1.41	1.40	1.39	1.39	1.37	1.36	1.34	1.33	1.32	1.31	1.30	1.29	1.28
23	1.39	1.47	1.47	1.45	1.43	1.42	1.41	1.40	1.39	1.38	1.37	1.35	1.34	1.33	1.32	1.31	1.30	1.28	1.27
24	1.39	1.47	1.46	1.44	1.43	1.41	1.40	1.39	1.38	1.38	1.36	1.35	1.33	1.32	1.31	1.30	1.29	1.28	1.26
25	1.39	1.47	1.46	1.44	1.42	1.41	1.40	1.39	1.38	1.37	1.36	1.34	1.33	1.32	1.31	1.29	1.28	1.27	1.25
26	1.38	1.46	1.45	1.44	1.42	1.41	1.39	1.38	1.37	1.37	1.35	1.34	1.32	1.31	1.30	1.29	1.28	1.26	1.25
27	1.38	1.46	1.45	1.43	1.42	1.40	1.39	1.38	1.37	1.36	1.35	1.33	1.32	1.31	1.30	1.28	1.27	1.26	1.24
28	1.38	1.46	1.45	1.43	1.41	1.40	1.39	1.38	1.37	1.36	1.34	1.33	1.31	1.30	1.29	1.28	1.27	1.25	1.24
29	1.38	1.45	1.45	1.43	1.41	1.40	1.38	1.37	1.36	1.35	1.34	1.32	1.31	1.30	1.29	1.27	1.26	1.25	1.23
30	1.38	1.45	1.44	1.42	1.41	1.39	1.38	1.37	1.36	1.35	1.34	1.32	1.30	1.29	1.28	1.27	1.26	1.24	1.23
35	1.37	1.44	1.43	1.41	1.40	1.38	1.37	1.36	1.35	1.34	1.32	1.31	1.29	1.28	1.27	1.25	1.24	1.22	1.20
40	1.36	1.44	1.42	1.40	1.39	1.37	1.36	1.35	1.34	1.33	1.31	1.30	1.28	1.26	1.25	1.24	1.22	1.21	1.19
50	1.35	1.43	1.41	1.39	1.37	1.36	1.34	1.33	1.32	1.31	1.30	1.28	1.26	1.25	1.23	1.22	1.20	1.19	1.16
60	1.35	1.42	1.41	1.38	1.37	1.35	1.33	1.32	1.31	1.30	1.29	1.27	1.25	1.24	1.22	1.21	1.19	1.17	1.15
80	1.34	1.41	1.40	1.38	1.36	1.34	1.32	1.31	1.30	1.29	1.27	1.26	1.23	1.22	1.21	1.19	1.17	1.15	1.12
120	1.34	1.40	1.39	1.37	1.35	1.33	1.31	1.30	1.29	1.28	1.26	1.24	1.22	1.21	1.19	1.18	1.16	1.13	1.10
∞	1.32	1.39	1.37	1.35	1.33	1.31	1.29	1.28	1.27	1.25	1.24	1.22	1.19	1.18	1.16	1.14	1.12	1.08	1.00

n_2 \ n_1	1	2	3	4	5	6	7	8	9	10	12	15	20	24	30	40	60	120	∞
1	39.86	49.50	53.59	55.83	57.24	58.20	58.91	59.44	59.86	60.19	60.71	61.22	61.74	62.00	62.26	62.53	62.79	63.06	63.33
2	8.53	9.00	9.16	9.24	9.29	9.33	9.35	9.37	9.38	9.39	9.41	9.42	9.44	9.45	9.46	9.47	9.47	9.48	9.49
3	5.54	5.46	5.39	5.34	5.31	5.28	5.27	5.25	5.24	5.23	5.22	5.20	5.18	5.18	5.17	5.16	5.15	5.14	5.13
4	4.54	4.32	4.19	4.11	4.05	4.01	3.98	3.95	3.94	3.92	3.90	3.87	3.84	3.83	3.82	3.80	3.79	3.78	3.76
5	4.06	3.78	3.62	3.52	3.45	3.40	3.37	3.34	3.32	3.30	3.27	3.24	3.21	3.19	3.17	3.16	3.14	3.12	3.10
6	3.78	3.46	3.29	3.18	3.11	3.05	3.01	2.98	2.96	2.94	2.90	2.87	2.84	2.82	2.80	2.78	2.76	2.74	2.72
7	3.59	3.26	3.07	2.96	2.88	2.83	2.78	2.75	2.72	2.70	2.67	2.63	2.59	2.58	2.56	2.54	2.51	2.49	2.47
8	3.46	3.11	2.92	2.81	2.73	2.67	2.62	2.59	2.56	2.54	2.50	2.46	2.42	2.40	2.38	2.36	2.34	2.32	2.29
9	3.36	3.01	2.81	2.69	2.61	2.55	2.51	2.47	2.44	2.42	2.38	2.34	2.30	2.28	2.25	2.23	2.21	2.18	2.16
10	3.29	2.92	2.73	2.61	2.52	2.46	2.41	2.38	2.35	2.32	2.28	2.24	2.20	2.18	2.16	2.13	2.11	2.08	2.06
11	3.23	2.86	2.66	2.54	2.45	2.39	2.34	2.30	2.27	2.25	2.21	2.17	2.12	2.10	2.08	2.05	2.03	2.00	1.97
12	3.18	2.81	2.61	2.48	2.39	2.33	2.28	2.24	2.21	2.19	2.15	2.10	2.06	2.04	2.01	1.99	1.96	1.93	1.90
13	3.14	2.76	2.56	2.43	2.35	2.28	2.23	2.20	2.16	2.14	2.10	2.05	2.01	1.98	1.96	1.93	1.90	1.88	1.85
14	3.10	2.73	2.52	2.39	2.31	2.24	2.19	2.15	2.12	2.10	2.05	2.01	1.96	1.94	1.91	1.89	1.86	1.83	1.80
15	3.07	2.70	2.49	2.36	2.27	2.21	2.16	2.12	2.09	2.06	2.02	1.97	1.92	1.90	1.87	1.85	1.82	1.79	1.76
16	3.05	2.67	2.46	2.33	2.24	2.18	2.13	2.09	2.06	2.03	1.99	1.94	1.89	1.87	1.84	1.81	1.78	1.75	1.72
17	3.03	2.64	2.44	2.31	2.22	2.15	2.10	2.06	2.03	2.00	1.96	1.91	1.86	1.84	1.81	1.78	1.75	1.72	1.69
18	3.01	2.62	2.42	2.29	2.20	2.13	2.08	2.04	2.00	1.98	1.93	1.89	1.84	1.81	1.78	1.75	1.72	1.69	1.66
19	2.99	2.61	2.40	2.27	2.18	2.11	2.06	2.02	1.98	1.96	1.91	1.86	1.81	1.79	1.76	1.73	1.70	1.67	1.63
20	2.97	2.59	2.38	2.25	2.16	2.09	2.04	2.00	1.96	1.94	1.89	1.84	1.79	1.77	1.74	1.71	1.68	1.64	1.61
21	2.96	2.57	2.36	2.23	2.14	2.08	2.02	1.98	1.95	1.92	1.87	1.83	1.78	1.75	1.72	1.69	1.66	1.62	1.59
22	2.95	2.56	2.35	2.22	2.13	2.06	2.01	1.97	1.93	1.90	1.86	1.81	1.76	1.73	1.70	1.67	1.64	1.60	1.57
23	2.94	2.55	2.34	2.21	2.11	2.05	1.99	1.95	1.92	1.89	1.84	1.80	1.74	1.72	1.69	1.66	1.62	1.59	1.55
24	2.93	2.54	2.33	2.19	2.10	2.04	1.98	1.94	1.91	1.88	1.83	1.78	1.73	1.70	1.67	1.64	1.61	1.57	1.53
25	2.92	2.53	2.32	2.18	2.09	2.02	1.97	1.93	1.89	1.87	1.82	1.77	1.72	1.69	1.66	1.63	1.59	1.56	1.52
26	2.91	2.52	2.31	2.17	2.08	2.01	1.96	1.92	1.88	1.86	1.81	1.76	1.71	1.68	1.65	1.61	1.58	1.54	1.50
27	2.90	2.51	2.30	2.17	2.07	2.00	1.95	1.91	1.87	1.85	1.80	1.75	1.70	1.67	1.64	1.60	1.57	1.53	1.49
28	2.89	2.50	2.29	2.16	2.06	2.00	1.94	1.90	1.87	1.84	1.79	1.74	1.69	1.66	1.63	1.59	1.56	1.52	1.48
29	2.89	2.50	2.28	2.15	2.06	1.99	1.93	1.89	1.86	1.83	1.78	1.73	1.68	1.65	1.62	1.58	1.55	1.51	1.47
30	2.88	2.49	2.28	2.14	2.05	1.98	1.93	1.88	1.85	1.82	1.77	1.72	1.67	1.64	1.61	1.57	1.54	1.50	1.46
35	2.85	2.46	2.25	2.11	2.02	1.95	1.90	1.85	1.82	1.79	1.74	1.69	1.63	1.60	1.57	1.53	1.50	1.46	1.41
40	2.84	2.44	2.23	2.09	2.00	1.93	1.87	1.83	1.79	1.76	1.71	1.66	1.61	1.57	1.54	1.51	1.47	1.42	1.38
50	2.81	2.41	2.20	2.06	1.97	1.90	1.84	1.80	1.76	1.73	1.68	1.63	1.57	1.54	1.50	1.46	1.42	1.38	1.33
60	2.79	2.39	2.18	2.04	1.95	1.87	1.82	1.77	1.74	1.71	1.66	1.60	1.54	1.51	1.48	1.44	1.40	1.35	1.29
80	2.77	2.37	2.15	2.02	1.92	1.85	1.79	1.75	1.71	1.68	1.63	1.57	1.51	1.48	1.44	1.40	1.36	1.31	1.24
120	2.75	2.35	2.13	1.99	1.90	1.82	1.77	1.72	1.68	1.65	1.60	1.55	1.48	1.45	1.41	1.37	1.32	1.26	1.19
∞	2.71	2.30	2.08	1.94	1.85	1.77	1.72	1.67	1.63	1.60	1.55	1.49	1.42	1.38	1.34	1.30	1.24	1.17	1.00

n_1 / n_2	1	2	3	4	5	6	7	8	9	10	12	15	20	24	30	40	60	120	∞
1	161.45	199.50	215.71	224.58	230.16	233.99	236.77	238.88	240.54	241.88	243.90	245.95	248.02	249.05	250.10	251.14	252.20	253.25	254.31
2	18.51	19.00	19.16	19.25	19.30	19.33	19.35	19.37	19.38	19.40	19.41	19.43	19.45	19.45	19.46	19.47	19.48	19.49	19.50
3	10.13	9.55	9.28	9.12	9.01	8.94	8.89	8.85	8.81	8.79	8.74	8.70	8.66	8.64	8.62	8.59	8.57	8.55	8.53
4	7.71	6.94	6.59	6.39	6.26	6.16	6.09	6.04	6.00	5.96	5.91	5.86	5.80	5.77	5.75	5.72	5.69	5.66	5.63
5	6.61	5.79	5.41	5.19	5.05	4.95	4.88	4.82	4.77	4.74	4.68	4.62	4.56	4.53	4.50	4.46	4.43	4.40	4.36
6	5.99	5.14	4.76	4.53	4.39	4.28	4.21	4.15	4.10	4.06	4.00	3.94	3.87	3.84	3.81	3.77	3.74	3.70	3.67
7	5.59	4.74	4.35	4.12	3.97	3.87	3.79	3.73	3.68	3.64	3.57	3.51	3.44	3.41	3.38	3.34	3.30	3.27	3.23
8	5.32	4.46	4.07	3.84	3.69	3.58	3.50	3.44	3.39	3.35	3.28	3.22	3.15	3.12	3.08	3.04	3.01	2.97	2.93
9	5.12	4.26	3.86	3.63	3.48	3.37	3.29	3.23	3.18	3.14	3.07	3.01	2.94	2.90	2.86	2.83	2.79	2.75	2.71
10	4.96	4.10	3.71	3.48	3.33	3.22	3.14	3.07	3.02	2.98	2.91	2.85	2.77	2.74	2.70	2.66	2.62	2.58	2.54
11	4.84	3.98	3.59	3.36	3.20	3.09	3.01	2.95	2.90	2.85	2.79	2.72	2.65	2.61	2.57	2.53	2.49	2.45	2.40
12	4.75	3.89	3.49	3.26	3.11	3.00	2.91	2.85	2.80	2.75	2.69	2.62	2.54	2.51	2.47	2.43	2.38	2.34	2.30
13	4.67	3.81	3.41	3.18	3.03	2.92	2.83	2.77	2.71	2.67	2.60	2.53	2.46	2.42	2.38	2.34	2.30	2.25	2.21
14	4.60	3.74	3.34	3.11	2.96	2.85	2.76	2.70	2.65	2.60	2.53	2.46	2.39	2.35	2.31	2.27	2.22	2.18	2.13
15	4.54	3.68	3.29	3.06	2.90	2.79	2.71	2.64	2.59	2.54	2.48	2.40	2.33	2.29	2.25	2.20	2.16	2.11	2.07
16	4.49	3.63	3.24	3.01	2.85	2.74	2.66	2.59	2.54	2.49	2.42	2.35	2.28	2.24	2.19	2.15	2.11	2.06	2.01
17	4.45	3.59	3.20	2.96	2.81	2.70	2.61	2.55	2.49	2.45	2.38	2.31	2.23	2.19	2.15	2.10	2.06	2.01	1.96
18	4.41	3.55	3.16	2.93	2.77	2.66	2.58	2.51	2.46	2.41	2.34	2.27	2.19	2.15	2.11	2.06	2.02	1.97	1.92
19	4.38	3.52	3.13	2.90	2.74	2.63	2.54	2.48	2.42	2.38	2.31	2.23	2.16	2.11	2.07	2.03	1.98	1.93	1.88
20	4.35	3.49	3.10	2.87	2.71	2.60	2.51	2.45	2.39	2.35	2.28	2.20	2.12	2.08	2.04	1.99	1.95	1.90	1.84
21	4.32	3.47	3.07	2.84	2.68	2.57	2.49	2.42	2.37	2.32	2.25	2.18	2.10	2.05	2.01	1.96	1.92	1.87	1.81
22	4.30	3.44	3.05	2.82	2.66	2.55	2.46	2.40	2.34	2.30	2.23	2.15	2.07	2.03	1.98	1.94	1.89	1.84	1.78
23	4.28	3.42	3.03	2.80	2.64	2.53	2.44	2.37	2.32	2.27	2.20	2.13	2.05	2.01	1.96	1.91	1.86	1.81	1.76
24	4.26	3.40	3.01	2.78	2.62	2.51	2.42	2.36	2.30	2.25	2.18	2.11	2.03	1.98	1.94	1.89	1.84	1.79	1.73
25	4.24	3.39	2.99	2.76	2.60	2.49	2.40	2.34	2.28	2.24	2.16	2.09	2.01	1.96	1.92	1.87	1.82	1.77	1.71
26	4.23	3.37	2.98	2.74	2.59	2.47	2.39	2.32	2.27	2.22	2.15	2.07	1.99	1.95	1.90	1.85	1.80	1.75	1.69
27	4.21	3.35	2.96	2.73	2.57	2.46	2.37	2.31	2.25	2.20	2.13	2.06	1.97	1.93	1.88	1.84	1.79	1.73	1.67
28	4.20	3.34	2.95	2.71	2.56	2.45	2.36	2.29	2.24	2.19	2.12	2.04	1.96	1.91	1.87	1.82	1.77	1.71	1.65
29	4.18	3.33	2.93	2.70	2.55	2.43	2.35	2.28	2.22	2.18	2.10	2.03	1.94	1.90	1.85	1.81	1.75	1.70	1.64
30	4.17	3.32	2.92	2.69	2.53	2.42	2.33	2.27	2.21	2.16	2.09	2.01	1.93	1.89	1.84	1.79	1.74	1.68	1.62
35	4.12	3.27	2.87	2.64	2.49	2.37	2.29	2.22	2.16	2.11	2.04	1.96	1.88	1.83	1.79	1.74	1.68	1.62	1.56
40	4.08	3.23	2.84	2.61	2.45	2.34	2.25	2.18	2.12	2.08	2.00	1.92	1.84	1.79	1.74	1.69	1.64	1.58	1.51
50	4.03	3.18	2.79	2.56	2.40	2.29	2.20	2.13	2.07	2.03	1.95	1.87	1.78	1.74	1.69	1.63	1.58	1.51	1.44
60	4.00	3.15	2.76	2.53	2.37	2.25	2.17	2.10	2.04	1.99	1.92	1.84	1.75	1.70	1.65	1.59	1.53	1.47	1.39
80	3.96	3.11	2.72	2.49	2.33	2.21	2.13	2.06	2.00	1.95	1.88	1.79	1.70	1.65	1.60	1.54	1.48	1.41	1.32
120	3.92	3.07	2.68	2.45	2.29	2.18	2.09	2.02	1.96	1.91	1.83	1.75	1.66	1.61	1.55	1.50	1.43	1.35	1.25
∞	3.84	3.00	2.60	2.37	2.21	2.10	2.01	1.94	1.88	1.83	1.75	1.67	1.57	1.52	1.46	1.39	1.32	1.22	1.00

n_2 \ n_1	1	2	3	4	5	6	7	8	9	10	12	15	20	24	30	40	60	120	∞
1	647.79	799.48	864.15	899.60	921.83	937.11	948.20	956.64	963.28	968.63	976.72	984.87	993.08	997.27	1001.4	1005.6	1009.8	1014.0	1018.3
2	38.51	39.00	39.17	39.25	39.30	39.33	39.36	39.37	39.39	39.40	39.41	39.43	39.45	39.46	39.46	39.47	39.48	39.49	39.50
3	17.44	16.04	15.44	15.10	14.88	14.73	14.62	14.54	14.47	14.42	14.34	14.25	14.17	14.12	14.08	14.04	13.99	13.95	13.90
4	12.22	10.65	9.98	9.60	9.36	9.20	9.07	8.98	8.90	8.84	8.75	8.66	8.56	8.51	8.46	8.41	8.36	8.31	8.26
5	10.01	8.43	7.76	7.39	7.15	6.98	6.85	6.76	6.68	6.62	6.52	6.43	6.33	6.28	6.23	6.18	6.12	6.07	6.02
6	8.81	7.26	6.60	6.23	5.99	5.82	5.70	5.60	5.52	5.46	5.37	5.27	5.17	5.12	5.07	5.01	4.96	4.90	4.85
7	8.07	6.54	5.89	5.52	5.29	5.12	4.99	4.90	4.82	4.76	4.67	4.57	4.47	4.41	4.36	4.31	4.25	4.20	4.14
8	7.57	6.06	5.42	5.05	4.82	4.65	4.53	4.43	4.36	4.30	4.20	4.10	4.00	3.95	3.89	3.84	3.78	3.73	3.67
9	7.21	5.71	5.08	4.72	4.48	4.32	4.20	4.10	4.03	3.96	3.87	3.77	3.67	3.61	3.56	3.51	3.45	3.39	3.33
10	6.94	5.46	4.83	4.47	4.24	4.07	3.95	3.85	3.78	3.72	3.62	3.52	3.42	3.37	3.31	3.26	3.20	3.14	3.08
11	6.72	5.26	4.63	4.28	4.04	3.88	3.76	3.66	3.59	3.53	3.43	3.33	3.23	3.17	3.12	3.06	3.00	2.94	2.88
12	6.55	5.10	4.47	4.12	3.89	3.73	3.61	3.51	3.44	3.37	3.28	3.18	3.07	3.02	2.96	2.91	2.85	2.79	2.72
13	6.41	4.97	4.35	4.00	3.77	3.60	3.48	3.39	3.31	3.25	3.15	3.05	2.95	2.89	2.84	2.78	2.72	2.66	2.60
14	6.30	4.86	4.24	3.89	3.66	3.50	3.38	3.29	3.21	3.15	3.05	2.95	2.84	2.79	2.73	2.67	2.61	2.55	2.49
15	6.20	4.77	4.15	3.80	3.58	3.41	3.29	3.20	3.12	3.06	2.96	2.86	2.76	2.70	2.64	2.59	2.52	2.46	2.40
16	6.12	4.69	4.08	3.73	3.50	3.34	3.22	3.12	3.05	2.99	2.89	2.79	2.68	2.63	2.57	2.51	2.45	2.38	2.32
17	6.04	4.62	4.01	3.66	3.44	3.28	3.16	3.06	2.98	2.92	2.82	2.72	2.62	2.56	2.50	2.44	2.38	2.32	2.25
18	5.98	4.56	3.95	3.61	3.38	3.22	3.10	3.01	2.93	2.87	2.77	2.67	2.56	2.50	2.44	2.38	2.32	2.26	2.19
19	5.92	4.51	3.90	3.56	3.33	3.17	3.05	2.96	2.88	2.82	2.72	2.62	2.51	2.45	2.39	2.33	2.27	2.20	2.13
20	5.87	4.46	3.86	3.51	3.29	3.13	3.01	2.91	2.84	2.77	2.68	2.57	2.46	2.41	2.35	2.29	2.22	2.16	2.09
21	5.83	4.42	3.82	3.48	3.25	3.09	2.97	2.87	2.80	2.73	2.64	2.53	2.42	2.37	2.31	2.25	2.18	2.11	2.04
22	5.79	4.38	3.78	3.44	3.22	3.05	2.93	2.84	2.76	2.70	2.60	2.50	2.39	2.33	2.27	2.21	2.14	2.08	2.00
23	5.75	4.35	3.75	3.41	3.18	3.02	2.90	2.81	2.73	2.67	2.57	2.47	2.36	2.30	2.24	2.18	2.11	2.04	1.97
24	5.72	4.32	3.72	3.38	3.15	2.99	2.87	2.78	2.70	2.64	2.54	2.44	2.33	2.27	2.21	2.15	2.08	2.01	1.94
25	5.69	4.29	3.69	3.35	3.13	2.97	2.85	2.75	2.68	2.61	2.51	2.41	2.30	2.24	2.18	2.12	2.05	1.98	1.91
26	5.66	4.27	3.67	3.33	3.10	2.94	2.82	2.73	2.65	2.59	2.49	2.39	2.28	2.22	2.16	2.09	2.03	1.95	1.88
27	5.63	4.24	3.65	3.31	3.08	2.92	2.80	2.71	2.63	2.57	2.47	2.36	2.25	2.19	2.13	2.07	2.00	1.93	1.85
28	5.61	4.22	3.63	3.29	3.06	2.90	2.78	2.69	2.61	2.55	2.45	2.34	2.23	2.17	2.11	2.05	1.98	1.91	1.83
29	5.59	4.20	3.61	3.27	3.04	2.88	2.76	2.67	2.59	2.53	2.43	2.32	2.21	2.15	2.09	2.03	1.96	1.89	1.81
30	5.57	4.18	3.59	3.25	3.03	2.87	2.75	2.65	2.57	2.51	2.41	2.31	2.20	2.14	2.07	2.01	1.94	1.87	1.79
35	5.48	4.11	3.52	3.18	2.96	2.80	2.68	2.58	2.50	2.44	2.34	2.23	2.12	2.06	2.00	1.93	1.86	1.79	1.70
40	5.42	4.05	3.46	3.13	2.90	2.74	2.62	2.53	2.45	2.39	2.29	2.18	2.07	2.01	1.94	1.88	1.80	1.72	1.64
50	5.34	3.97	3.39	3.05	2.83	2.67	2.55	2.46	2.38	2.32	2.22	2.11	1.99	1.93	1.87	1.80	1.72	1.64	1.55
60	5.29	3.93	3.34	3.01	2.79	2.63	2.51	2.41	2.33	2.27	2.17	2.06	1.94	1.88	1.82	1.74	1.67	1.58	1.48
80	5.22	3.86	3.28	2.95	2.73	2.57	2.45	2.35	2.28	2.21	2.11	2.00	1.88	1.82	1.75	1.68	1.60	1.51	1.40
120	5.15	3.80	3.23	2.89	2.67	2.52	2.39	2.30	2.22	2.16	2.05	1.94	1.82	1.76	1.69	1.61	1.53	1.43	1.31
∞	5.02	3.69	3.12	2.79	2.57	2.41	2.29	2.19	2.11	2.05	1.94	1.83	1.71	1.64	1.57	1.48	1.39	1.27	1.00

n_2 \ n_1	1	2	3	4	5	6	7	8	9	10	12	15	20	24	30	40	60	120	∞
1	4052.2	4999.3	5403.5	5624.3	5764.0	5859.0	5928.3	5981.0	6022.4	6055.9	6106.7	6157.0	6208.7	6234.3	6260.4	6286.4	6313.0	6339.5	6365.6
2	98.50	99.00	99.16	99.25	99.30	99.33	99.36	99.38	99.39	99.40	99.42	99.43	99.45	99.46	99.47	99.48	99.48	99.49	99.50
3	34.12	30.82	29.46	28.71	28.24	27.91	27.67	27.49	27.34	27.23	27.05	26.87	26.69	26.60	26.50	26.41	26.32	26.22	26.13
4	21.20	18.00	16.69	15.98	15.52	15.21	14.98	14.80	14.66	14.55	14.37	14.20	14.02	13.93	13.84	13.75	13.65	13.56	13.46
5	16.26	13.27	12.06	11.39	10.97	10.67	10.46	10.29	10.16	10.05	9.89	9.72	9.55	9.47	9.38	9.29	9.20	9.11	9.02
6	13.75	10.92	9.78	9.15	8.75	8.47	8.26	8.10	7.98	7.87	7.72	7.56	7.40	7.31	7.23	7.14	7.06	6.97	6.88
7	12.25	9.55	8.45	7.85	7.46	7.19	6.99	6.84	6.72	6.62	6.47	6.31	6.16	6.07	5.99	5.91	5.82	5.74	5.65
8	11.26	8.65	7.59	7.01	6.63	6.37	6.18	6.03	5.91	5.81	5.67	5.52	5.36	5.28	5.20	5.12	5.03	4.95	4.86
9	10.56	8.02	6.99	6.42	6.06	5.80	5.61	5.47	5.35	5.26	5.11	4.96	4.81	4.73	4.65	4.57	4.48	4.40	4.31
10	10.04	7.56	6.55	5.99	5.64	5.39	5.20	5.06	4.94	4.85	4.71	4.56	4.41	4.33	4.25	4.17	4.08	4.00	3.91
11	9.65	7.21	6.22	5.67	5.32	5.07	4.89	4.74	4.63	4.54	4.40	4.25	4.10	4.02	3.94	3.86	3.78	3.69	3.60
12	9.33	6.93	5.95	5.41	5.06	4.82	4.64	4.50	4.39	4.30	4.16	4.01	3.86	3.78	3.70	3.62	3.54	3.45	3.36
13	9.07	6.70	5.74	5.21	4.86	4.62	4.44	4.30	4.19	4.10	3.96	3.82	3.66	3.59	3.51	3.43	3.34	3.25	3.17
14	8.86	6.51	5.56	5.04	4.69	4.46	4.28	4.14	4.03	3.94	3.80	3.66	3.51	3.43	3.35	3.27	3.18	3.09	3.00
15	8.68	6.36	5.42	4.89	4.56	4.32	4.14	4.00	3.89	3.80	3.67	3.52	3.37	3.29	3.21	3.13	3.05	2.96	2.87
16	8.53	6.23	5.29	4.77	4.44	4.20	4.03	3.89	3.78	3.69	3.55	3.41	3.26	3.18	3.10	3.02	2.93	2.84	2.75
17	8.40	6.11	5.19	4.67	4.34	4.10	3.93	3.79	3.68	3.59	3.46	3.31	3.16	3.08	3.00	2.92	2.83	2.75	2.65
18	8.29	6.01	5.09	4.58	4.25	4.01	3.84	3.71	3.60	3.51	3.37	3.23	3.08	3.00	2.92	2.84	2.75	2.66	2.57
19	8.18	5.93	5.01	4.50	4.17	3.94	3.77	3.63	3.52	3.43	3.30	3.15	3.00	2.92	2.84	2.76	2.67	2.58	2.49
20	8.10	5.85	4.94	4.43	4.10	3.87	3.70	3.56	3.46	3.37	3.23	3.09	2.94	2.86	2.78	2.69	2.61	2.52	2.42
21	8.02	5.78	4.87	4.37	4.04	3.81	3.64	3.51	3.40	3.31	3.17	3.03	2.88	2.80	2.72	2.64	2.55	2.46	2.36
22	7.95	5.72	4.82	4.31	3.99	3.76	3.59	3.45	3.35	3.26	3.12	2.98	2.83	2.75	2.67	2.58	2.50	2.40	2.31
23	7.88	5.66	4.76	4.26	3.94	3.71	3.54	3.41	3.30	3.21	3.07	2.93	2.78	2.70	2.62	2.54	2.45	2.35	2.26
24	7.82	5.61	4.72	4.22	3.90	3.67	3.50	3.36	3.26	3.17	3.03	2.89	2.74	2.66	2.58	2.49	2.40	2.31	2.21
25	7.77	5.57	4.68	4.18	3.85	3.63	3.46	3.32	3.22	3.13	2.99	2.85	2.70	2.62	2.54	2.45	2.36	2.27	2.17
26	7.72	5.53	4.64	4.14	3.82	3.59	3.42	3.29	3.18	3.09	2.96	2.81	2.66	2.58	2.50	2.42	2.33	2.23	2.13
27	7.68	5.49	4.60	4.11	3.78	3.56	3.39	3.26	3.15	3.06	2.93	2.78	2.63	2.55	2.47	2.38	2.29	2.20	2.10
28	7.64	5.45	4.57	4.07	3.75	3.53	3.36	3.23	3.12	3.03	2.90	2.75	2.60	2.52	2.44	2.35	2.26	2.17	2.06
29	7.60	5.42	4.54	4.04	3.73	3.50	3.33	3.20	3.09	3.00	2.87	2.73	2.57	2.49	2.41	2.33	2.23	2.14	2.03
30	7.56	5.39	4.51	4.02	3.70	3.47	3.30	3.17	3.07	2.98	2.84	2.70	2.55	2.47	2.39	2.30	2.21	2.11	2.01
35	7.42	5.27	4.40	3.91	3.59	3.37	3.20	3.07	2.96	2.88	2.74	2.60	2.44	2.36	2.28	2.19	2.10	2.00	1.89
40	7.31	5.18	4.31	3.83	3.51	3.29	3.12	2.99	2.89	2.80	2.66	2.52	2.37	2.29	2.20	2.11	2.02	1.92	1.80
50	7.17	5.06	4.20	3.72	3.41	3.19	3.02	2.89	2.78	2.70	2.56	2.42	2.27	2.18	2.10	2.01	1.91	1.80	1.68
60	7.08	4.98	4.13	3.65	3.34	3.12	2.95	2.82	2.72	2.63	2.50	2.35	2.20	2.12	2.03	1.94	1.84	1.73	1.60
80	6.96	4.88	4.04	3.56	3.26	3.04	2.87	2.74	2.64	2.55	2.42	2.27	2.12	2.03	1.94	1.85	1.75	1.63	1.49
120	6.85	4.79	3.95	3.48	3.17	2.96	2.79	2.66	2.56	2.47	2.34	2.19	2.03	1.95	1.86	1.76	1.66	1.53	1.38
∞	6.63	4.61	3.78	3.32	3.02	2.80	2.64	2.51	2.41	2.32	2.18	2.04	1.88	1.79	1.70	1.59	1.47	1.32	1.00

α =0.005

n_1 / n_2	1	2	3	4	5	6	7	8	9	10	12	15	20	24	30	40	60	120	∞
1	16212	19997	21614	22501	23056	23440	23715	23924	24091	24222	24427	24632	24837	24937	25041	25146	25254	25358	25466
2	198.5	199.0	199.2	199.2	199.3	199.3	199.4	199.4	199.4	199.4	199.4	199.4	199.4	199.4	199.5	199.5	199.5	199.5	199.5
3	55.55	49.80	47.47	46.20	45.39	44.84	44.43	44.13	43.88	43.68	43.39	43.08	42.78	42.62	42.47	42.31	42.15	41.99	41.83
4	31.33	26.28	24.26	23.15	22.46	21.98	21.62	21.35	21.14	20.97	20.70	20.44	20.17	20.03	19.89	19.75	19.61	19.47	19.32
5	22.78	18.31	16.53	15.56	14.94	14.51	14.20	13.96	13.77	13.62	13.38	13.15	12.90	12.78	12.66	12.53	12.40	12.27	12.14
6	18.63	14.54	12.92	12.03	11.46	11.07	10.79	10.57	10.39	10.25	10.03	9.81	9.59	9.47	9.36	9.24	9.12	9.00	8.88
7	16.24	12.40	10.88	10.05	9.52	9.16	8.89	8.68	8.51	8.38	8.18	7.97	7.75	7.64	7.53	7.42	7.31	7.19	7.08
8	14.69	11.04	9.60	8.81	8.30	7.95	7.69	7.50	7.34	7.21	7.01	6.81	6.61	6.50	6.40	6.29	6.18	6.06	5.95
9	13.61	10.11	8.72	7.96	7.47	7.13	6.88	6.69	6.54	6.42	6.23	6.03	5.83	5.73	5.62	5.52	5.41	5.30	5.19
10	12.83	9.43	8.08	7.34	6.87	6.54	6.30	6.12	5.97	5.85	5.66	5.47	5.27	5.17	5.07	4.97	4.86	4.75	4.64
11	12.23	8.91	7.60	6.88	6.42	6.10	5.86	5.68	5.54	5.42	5.24	5.05	4.86	4.76	4.65	4.55	4.45	4.34	4.23
12	11.75	8.51	7.23	6.52	6.07	5.76	5.52	5.35	5.20	5.09	4.91	4.72	4.53	4.43	4.33	4.23	4.12	4.01	3.90
13	11.37	8.19	6.93	6.23	5.79	5.48	5.25	5.08	4.94	4.82	4.64	4.46	4.27	4.17	4.07	3.97	3.87	3.76	3.65
14	11.06	7.92	6.68	6.00	5.56	5.26	5.03	4.86	4.72	4.60	4.43	4.25	4.06	3.96	3.86	3.76	3.66	3.55	3.44
15	10.80	7.70	6.48	5.80	5.37	5.07	4.85	4.67	4.54	4.42	4.25	4.07	3.88	3.79	3.69	3.59	3.48	3.37	3.26
16	10.58	7.51	6.30	5.64	5.21	4.91	4.69	4.52	4.38	4.27	4.10	3.92	3.73	3.64	3.54	3.44	3.33	3.22	3.11
17	10.38	7.35	6.16	5.50	5.07	4.78	4.56	4.39	4.25	4.14	3.97	3.79	3.61	3.51	3.41	3.31	3.21	3.10	2.98
18	10.22	7.21	6.03	5.37	4.96	4.66	4.44	4.28	4.14	4.03	3.86	3.68	3.50	3.40	3.30	3.20	3.10	2.99	2.87
19	10.07	7.09	5.92	5.27	4.85	4.56	4.34	4.18	4.04	3.93	3.76	3.59	3.40	3.31	3.21	3.11	3.00	2.89	2.78
20	9.94	6.99	5.82	5.17	4.76	4.47	4.26	4.09	3.96	3.85	3.68	3.50	3.32	3.22	3.12	3.02	2.92	2.81	2.69
21	9.83	6.89	5.73	5.09	4.68	4.39	4.18	4.01	3.88	3.77	3.60	3.43	3.24	3.15	3.05	2.95	2.84	2.73	2.61
22	9.73	6.81	5.65	5.02	4.61	4.32	4.11	3.94	3.81	3.70	3.54	3.36	3.18	3.08	2.98	2.88	2.77	2.66	2.55
23	9.63	6.73	5.58	4.95	4.54	4.26	4.05	3.88	3.75	3.64	3.47	3.30	3.12	3.02	2.92	2.82	2.71	2.60	2.48
24	9.55	6.66	5.52	4.89	4.49	4.20	3.99	3.83	3.69	3.59	3.42	3.25	3.06	2.97	2.87	2.77	2.66	2.55	2.43
25	9.48	6.60	5.46	4.84	4.43	4.15	3.94	3.78	3.64	3.54	3.37	3.20	3.01	2.92	2.82	2.72	2.61	2.50	2.38
26	9.41	6.54	5.41	4.79	4.38	4.10	3.89	3.73	3.60	3.49	3.33	3.15	2.97	2.87	2.77	2.67	2.56	2.45	2.33
27	9.34	6.49	5.36	4.74	4.34	4.06	3.85	3.69	3.56	3.45	3.28	3.11	2.93	2.83	2.73	2.63	2.52	2.41	2.29
28	9.28	6.44	5.32	4.70	4.30	4.02	3.81	3.65	3.52	3.41	3.25	3.07	2.89	2.79	2.69	2.59	2.48	2.37	2.25
29	9.23	6.40	5.28	4.66	4.26	3.98	3.77	3.61	3.48	3.38	3.21	3.04	2.86	2.76	2.66	2.56	2.45	2.33	2.21
30	9.18	6.35	5.24	4.62	4.23	3.95	3.74	3.58	3.45	3.34	3.18	3.01	2.82	2.73	2.63	2.52	2.42	2.30	2.18
35	8.98	6.19	5.09	4.48	4.09	3.81	3.61	3.45	3.32	3.21	3.05	2.88	2.69	2.60	2.50	2.39	2.28	2.16	2.04
40	8.83	6.07	4.98	4.37	3.99	3.71	3.51	3.35	3.22	3.12	2.95	2.78	2.60	2.50	2.40	2.30	2.18	2.06	1.93
50	8.63	5.90	4.83	4.23	3.85	3.58	3.38	3.22	3.09	2.99	2.82	2.65	2.47	2.37	2.27	2.16	2.05	1.93	1.79
60	8.49	5.79	4.73	4.14	3.76	3.49	3.29	3.13	3.01	2.90	2.74	2.57	2.39	2.29	2.19	2.08	1.96	1.83	1.69
80	8.33	5.67	4.61	4.03	3.65	3.39	3.19	3.03	2.91	2.80	2.64	2.47	2.29	2.19	2.08	1.97	1.85	1.72	1.56
120	8.18	5.54	4.50	3.92	3.55	3.28	3.09	2.93	2.81	2.71	2.54	2.37	2.19	2.09	1.98	1.87	1.75	1.61	1.43
∞	7.88	5.30	4.28	3.72	3.35	3.09	2.90	2.74	2.62	2.52	2.36	2.19	2.00	1.90	1.79	1.67	1.53	1.36	1.00

n_1 / n_2	1	2	3	4	5	6	7	8	9	10	12	15	20	24	30	40	60	120	∞
1	405312	499725	540257	562668	576496	586033	593185	597954	602245	605583	610352	616074	620842	623703	626087	628471	631332	634193	636578
2	998.4	998.8	999.3	999.3	999.3	999.3	999.3	999.3	999.3	999.3	999.3	999.3	999.3	999.3	999.3	999.3	999.3	999.3	999.3
3	167.1	148.5	141.1	137.1	134.6	132.8	131.6	130.6	129.9	129.2	128.3	127.4	126.4	125.9	125.4	125.0	124.4	124.0	123.5
4	74.13	61.25	56.17	53.43	51.72	50.52	49.65	49.00	48.47	48.05	47.41	46.76	46.10	45.77	45.43	45.08	44.75	44.40	44.05
5	47.18	37.12	33.20	31.08	29.75	28.83	28.17	27.65	27.24	26.91	26.42	25.91	25.39	25.13	24.87	24.60	24.33	24.06	23.79
6	35.51	27.00	23.71	21.92	20.80	20.03	19.46	19.03	18.69	18.41	17.99	17.56	17.12	16.90	16.67	16.44	16.21	15.98	15.75
7	29.25	21.69	18.77	17.20	16.21	15.52	15.02	14.63	14.33	14.08	13.71	13.32	12.93	12.73	12.53	12.33	12.12	11.91	11.70
8	25.41	18.49	15.83	14.39	13.48	12.86	12.40	12.05	11.77	11.54	11.19	10.84	10.48	10.30	10.11	9.92	9.73	9.53	9.33
9	22.86	16.39	13.90	12.56	11.71	11.13	10.70	10.37	10.11	9.89	9.57	9.24	8.90	8.72	8.55	8.37	8.19	8.00	7.81
10	21.04	14.90	12.55	11.28	10.48	9.93	9.52	9.20	8.96	8.75	8.45	8.13	7.80	7.64	7.47	7.30	7.12	6.94	6.76
11	19.69	13.81	11.56	10.35	9.58	9.05	8.65	8.35	8.12	7.92	7.63	7.32	7.01	6.85	6.68	6.52	6.35	6.18	6.00
12	18.64	12.97	10.80	9.63	8.89	8.38	8.00	7.71	7.48	7.29	7.00	6.71	6.40	6.25	6.09	5.93	5.76	5.59	5.42
13	17.82	12.31	10.21	9.07	8.35	7.86	7.49	7.21	6.98	6.80	6.52	6.23	5.93	5.78	5.63	5.47	5.30	5.14	4.97
14	17.14	11.78	9.73	8.62	7.92	7.44	7.08	6.80	6.58	6.40	6.13	5.85	5.56	5.41	5.25	5.10	4.94	4.77	4.60
15	16.59	11.34	9.34	8.25	7.57	7.09	6.74	6.47	6.26	6.08	5.81	5.54	5.25	5.10	4.95	4.80	4.64	4.48	4.31
16	16.12	10.97	9.01	7.94	7.27	6.80	6.46	6.20	5.98	5.81	5.55	5.27	4.99	4.85	4.70	4.54	4.39	4.23	4.06
17	15.72	10.66	8.73	7.68	7.02	6.56	6.22	5.96	5.75	5.58	5.32	5.05	4.78	4.63	4.48	4.33	4.18	4.02	3.85
18	15.38	10.39	8.49	7.46	6.81	6.35	6.02	5.76	5.56	5.39	5.13	4.87	4.59	4.45	4.30	4.15	4.00	3.84	3.67
19	15.08	10.16	8.28	7.27	6.62	6.18	5.85	5.59	5.39	5.22	4.97	4.70	4.43	4.29	4.14	3.99	3.84	3.68	3.51
20	14.82	9.95	8.10	7.10	6.46	6.02	5.69	5.44	5.24	5.08	4.82	4.56	4.29	4.15	4.00	3.86	3.70	3.54	3.38
21	14.59	9.77	7.94	6.95	6.32	5.88	5.56	5.31	5.11	4.95	4.70	4.44	4.17	4.03	3.88	3.74	3.58	3.42	3.26
22	14.38	9.61	7.80	6.81	6.19	5.76	5.44	5.19	4.99	4.83	4.58	4.33	4.06	3.92	3.78	3.63	3.48	3.32	3.15
23	14.20	9.47	7.67	6.70	6.08	5.65	5.33	5.09	4.89	4.73	4.48	4.23	3.96	3.82	3.68	3.53	3.38	3.22	3.05
24	14.03	9.34	7.55	6.59	5.98	5.55	5.24	4.99	4.80	4.64	4.39	4.14	3.87	3.74	3.59	3.45	3.29	3.14	2.97
25	13.88	9.22	7.45	6.49	5.89	5.46	5.15	4.91	4.71	4.56	4.31	4.06	3.79	3.66	3.52	3.37	3.22	3.06	2.89
26	13.74	9.12	7.36	6.41	5.80	5.38	5.07	4.83	4.64	4.48	4.24	3.99	3.72	3.59	3.44	3.30	3.15	2.99	2.82
27	13.61	9.02	7.27	6.33	5.73	5.31	5.00	4.76	4.57	4.41	4.17	3.92	3.66	3.52	3.38	3.23	3.08	2.92	2.75
28	13.50	8.93	7.19	6.25	5.66	5.24	4.93	4.69	4.50	4.35	4.11	3.86	3.60	3.46	3.32	3.18	3.02	2.86	2.69
29	13.39	8.85	7.12	6.19	5.59	5.18	4.87	4.64	4.45	4.29	4.05	3.80	3.54	3.41	3.27	3.12	2.97	2.81	2.64
30	13.29	8.77	7.05	6.12	5.53	5.12	4.82	4.58	4.39	4.24	4.00	3.75	3.49	3.36	3.22	3.07	2.92	2.76	2.59
35	12.90	8.47	6.79	5.88	5.30	4.89	4.59	4.36	4.18	4.03	3.79	3.55	3.29	3.16	3.02	2.87	2.72	2.56	2.38
40	12.61	8.25	6.59	5.70	5.13	4.73	4.44	4.21	4.02	3.87	3.64	3.40	3.15	3.01	2.87	2.73	2.57	2.41	2.23
50	12.22	7.96	6.34	5.46	4.90	4.51	4.22	4.00	3.82	3.67	3.44	3.20	2.95	2.82	2.68	2.53	2.38	2.21	2.03
60	11.97	7.77	6.17	5.31	4.76	4.37	4.09	3.86	3.69	3.54	3.32	3.08	2.83	2.69	2.55	2.41	2.25	2.08	1.89
80	11.67	7.54	5.97	5.12	4.58	4.20	3.92	3.70	3.53	3.39	3.16	2.93	2.68	2.54	2.41	2.26	2.10	1.92	1.72
120	11.38	7.32	5.78	4.95	4.42	4.04	3.77	3.55	3.38	3.24	3.02	2.78	2.53	2.40	2.26	2.11	1.95	1.77	1.54
∞	10.83	6.91	5.42	4.62	4.10	3.74	3.47	3.27	3.10	2.96	2.74	2.51	2.27	2.13	1.99	1.84	1.66	1.45	1.00

附表 7 相关系数检验表

$$P\left\{|r| > r_\alpha\right\} = \alpha$$

n-2	α =0.25	α =0.1	α =0.05	α =0.025	α =0.01	α =0.005
1	0.9239	0.9877	0.9969	0.9992	0.9999	1.0000
2	0.7500	0.9000	0.9500	0.9750	0.9900	0.9950
3	0.6347	0.8054	0.8783	0.9237	0.9587	0.9740
4	0.5579	0.7293	0.8114	0.8680	0.9172	0.9417
5	0.5029	0.6694	0.7545	0.8166	0.8745	0.9056
6	0.4612	0.6215	0.7067	0.7713	0.8343	0.8697
7	0.4284	0.5822	0.6664	0.7318	0.7977	0.8359
8	0.4016	0.5494	0.6319	0.6973	0.7646	0.8046
9	0.3793	0.5214	0.6021	0.6669	0.7348	0.7759
10	0.3603	0.4973	0.5760	0.6400	0.7079	0.7496
11	0.3438	0.4762	0.5529	0.6159	0.6835	0.7255
12	0.3295	0.4575	0.5324	0.5943	0.6614	0.7034
13	0.3168	0.4409	0.5140	0.5748	0.6411	0.6831
14	0.3054	0.4259	0.4973	0.5570	0.6226	0.6643
15	0.2952	0.4124	0.4821	0.5408	0.6055	0.6470
16	0.2860	0.4000	0.4683	0.5258	0.5897	0.6308
17	0.2775	0.3887	0.4555	0.5121	0.5751	0.6158
18	0.2698	0.3783	0.4438	0.4993	0.5614	0.6018
19	0.2627	0.3687	0.4329	0.4875	0.5487	0.5886
20	0.2561	0.3598	0.4227	0.4764	0.5368	0.5763
21	0.2500	0.3515	0.4132	0.4660	0.5256	0.5647
22	0.2443	0.3438	0.4044	0.4563	0.5151	0.5537
23	0.2390	0.3365	0.3961	0.4472	0.5052	0.5434
24	0.2340	0.3297	0.3882	0.4386	0.4958	0.5336
25	0.2293	0.3233	0.3809	0.4305	0.4869	0.5243
26	0.2248	0.3172	0.3739	0.4228	0.4785	0.5154
27	0.2207	0.3115	0.3673	0.4155	0.4705	0.5070
28	0.2167	0.3061	0.3610	0.4085	0.4629	0.4990
29	0.2130	0.3009	0.3550	0.4019	0.4556	0.4914
30	0.2094	0.2960	0.3494	0.3956	0.4487	0.4840
35	0.1940	0.2746	0.3246	0.3681	0.4182	0.4518
40	0.1815	0.2573	0.3044	0.3456	0.3932	0.4252
45	0.1712	0.2429	0.2876	0.3267	0.3721	0.4028
50	0.1624	0.2306	0.2732	0.3106	0.3542	0.3836
60	0.1483	0.2108	0.2500	0.2845	0.3248	0.3522
70	0.1373	0.1954	0.2319	0.2641	0.3017	0.3274
80	0.1285	0.1829	0.2172	0.2475	0.2830	0.3072
90	0.1211	0.1726	0.2050	0.2336	0.2673	0.2903
100	0.1149	0.1638	0.1946	0.2219	0.2540	0.2759
150	0.0939	0.1339	0.1593	0.1818	0.2083	0.2266
200	0.0813	0.1161	0.1381	0.1577	0.1809	0.1968