



附表一:二項分配之累積機率值

附表二:卜松分配之累積機率值

附表三:常態分配之累積機率值

附表四: t 分配之臨界值

附表五:卡方分配之臨界值

附表六:F分配之臨界值

附表七:常態分配下之容差因子

附表八:W-符號等級檢定之臨界值

附表九:連檢定之P值



附表一:二項分配之累積機率值

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

										_		
n	c	0.05	0.1	0.2	0.25	0.3	0.4	0.5	0.6	0.7	0.8	0.9
1	0	0.9500	0.9000	0.8000	0.7500	0.7000	0.6000	0.5000	0.4000	0.3000	0.2000	0.1000
	1	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
2	0	0.9025	0.8100	0.6400	0.5625	0.4900	0.3600	0.2500	0.1600	0.0900	0.0400	0.0100
	1	0.9975	0.9900	0.9600	0.9375	0.9100	0.8400	0.7500	0.6400	0.5100	0.3600	0.1900
	2	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
.3	0	0.8574	0.7290	0.5120	0.4219	0.3430	0.2160	0.1250	0.0640	0.0270	0.0080	0.0010
	1	0.9928	0.9720	0.8960	0.8438	0.7840	0.6480	0.5000	0.3520	0.2160	0.1040	0.0280
	2	0.9999	0.9990	0.9920	0.9844	0.9730	0.9360	0.8750	0.7840	0.6570	0.4880	0.2710
	3	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
4	0	0.8145	0.6561	0.4096	0.3164	0.2401	0.1296	0.0625	0.0256	0.0081	0.0016	0.0001
	1	0.9860	0.9477	0.8192	0.7383	0.6517	0.4752	0.3125	0.1792	0.0837	0.0272	0.0037
	2	0.9995	0.9963	0.9728	0.9492	0.9163	0.8208	0.6875	0.5248	0.3483	0.1808	0.0523
	3	1.0000	0.9999	0.9984	0.9961	0.9919	0.9744	0.9375	0.8704	0.7599	0.5904	0.3439
	4	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
5	0	0.7738	0.5905	0.3277	0.2373	0.1681	0.0778	0.0313	0.0102	0.0024	0.0003	0.0000
	1	0.9774	0.9185	0.7373	0.6328	0.5282	0.3370	0.1875	0.0870	0.0308	0.0067	0.0005
	2	0.9988	0.9914	0.9421	0.8965	0.8369	0.6826	0.5000	0.3174	0.1631	0.0579	0.0086
	3	1.0000	0.9995	0.9933	0.9844	0.9692	0.9130	0.8125	0.6630	0.4718	0.2627	0.0815
	4	1.0000	1.0000	0.9997	0.9990	0.9976	0.9898	0.9688	0.9222	0.8319	0.6723	0.4095
	5	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
6	0	0.7351	0.5314	0.2621	0.1780	0.1176	0.0467	0.0156	0.0041	0.0007	0.0001	0.0000
	1	0.9672	0.8857	0.6554	0.5339	0.4202	0.2333	0.1094	0.0410	0.0109	0.0016	0.0001
j	2	0.9978	0.9842	0.9011	0.8306	0.7443	0.5443	0.3438	0.1792	0.0705	0.0170	0.0013
	3	0.9999	0.9987	0.9830	0.9624	0.9295	0.8208	0.6563	0.4557	0.2557	0.0989	0.0159
	4	1.0000	0.9999	0.9984	0.9954	0.9891	0.9590	0.8906	0.7667	0.5798	0.3446	0.1143
	5	1.0000	1.0000	0.9999	0.9998	0.9993	0.9959	0.9844	0.9533	0.8824	0.7379	0.4686
Ì	6	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
7	0	0.6983	0.4783	0.2097	0.1335	0.0824	0.0280	0.0078	0.0016	0.0002	0.0000	0.0000
	1	0.9556	0.8503	0.5767	0.4449	0.3294	0.1586	0.0625	0.0188	0.0038	0.0004	0.0000
	2	0.9962	0.9743	0.8520	0.7564	0.6471	0.4199	0.2266	0.0963	0.0288	0.0047	0.0002
	3										0.0333	
1	4										0.1480	
	5										0.4233	
	6										0.7903	
	7	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000



						p						
n	c	0.05	0.1	0.2	0.25	0.3	0.4	0.5.	0.6	0.7	0.8	0.9
8	0	0.6634	0.4305	0.1678	0.1001	0.0576	0.0168	0.0039	0.0007	0.0001	0.0000	0.0000
	1	0.9428	0.8131	0.5033	0.3671	0.2553	0.1064	0.0352	0.0085	0.0013	0.0001	0.0000
	2	0.9942	0.9619	0.7969	0.6785	0.5518	0.3154	0.1445	0.0498	0.0113	0.0012	0.0000
	3	0.9996	0.9950	0.9437	0.8862	0.8059	0.5941	0.3633	0.1737	0.0580	0.0104	0.0004
	4	1.0000	0.9996	0.9896	0.9727	0.9420	0.8263	0.6367	0.4059	0.1941	0.0563	0.0050
	5	1.0000	1.0000	0.9988	0.9958	0.9887	0.9502	0.8555	0.6846	0.4482	0.2031	0.0381
	6	1.0000	1.0000	0.9999	0.9996	0.9987	0.9915	0.9648	0.8936	0.7447	0.4967	0.1869
	7	1.0000	1.0000	1.0000	1.00.00	0.9999	0.9993	0.9961	0.9832	0.9424	0.8322	0.5695
	8	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
9	0	0.6302	0.3874	0.1342	0.0751	0.0404	0.0101	0.0020	0.0003	0.0000	0.0000	0.0000
	1	0.9288	0.7748	0.4362	0.3003	0.1960	0.0705	0.0195	0.0038	0.0004	0.0000	0.0000
	2	0.9916	0.9470	0.7382	0.6007	0.4628	0.2318	0.0898	0.0250	0.0043	0.0003	0.0000
	3	0.9994	0.9917	0.9144	0.8343	0.7297	0.4826	0.2539	0.0994	0.0253	0.0031	0.0001
	4	1.0000	0.9991	0.9804	0.9511	0.9012	0.7334	0.5000	0.2666	0.0988	0.0196	0.0009
	5	1.0000	0.9999	0.9969	0.9900	0.9747	0.9006	0.7461	0.5174	0.2703	0.0856	0.0083
	6	1.0000	1.0000	0.9997	0.9987	0.9957	0.9750	0.9102	0.7682	0.5372	0.2618	0.0530
}	7	1.0000	1.0000	1.0000	0.9999	0.9996	0.9962	0.9805	0.9295	0.8040	0.5638	0.2252
	8	1.0000	1.0000	1.0000	1.0000	1.0000	0.9997	0.9980	0.9899	0.9596	0.8658	0.6126
	9	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
10	0	0.5987	0.3487	0.1074	0.0563	0.0282	0.0060	0.0010	0.0001	0.0000	0.0000	0.0000
	1	0.9139	0.7361	0.3758	0.2440	0.1493	0.0464	0.0107	0.0017	0.0001	0.0000	0.0000
	2	0.9885	0.9298	0.6778	0.5256	0.3828	0.1673	0.0547	0.0123	0.0016	0.0001	0.0000
	3	0.9990	0.9872	0.8791	0.7759	0.6496	0.3823	0.1719	0.0548	0.0106	0.0009	0.0000
	4	0.9999	0.9984	0.9672	0.9219	0.8497	0.6331	0.3770	0.1662	0.0473	0.0064	0.0001
	5	1.0000	0.9999	0.9936			0.8338				0.0328	0.0016
	6	1.0000	1.0000	0.9991			0.9452		0.6177	0.3504	0.1209	0.0128
	7	1.0000	1.0000	0.9999			0.9877		0.8327			0.0702
	8	1.0000	1.0000	1.0000			0.9983		0.9536			0.2639
	9						0.9999					0.6513
	10						1.0000					
11	0						0.0036					
	1						0.0302					
	2						0.1189					
1	3						0.2963					
	4						0.5328					
	5						0.7535					
	6	1.0000	1.0000	0.9980	0.9924	0.9784	0.9006	0.7256	0.4672	0.2103	0.0504	0.0028



						p						
n	c	0.05	0.1	0.2	0.25	0.3	0.4	0.5	0.6	0.7	0.8	0.9
11	7	1.0000	1.0000	0.9998	0.9988	0.9957	0.9707	0.8867	0.7037	0.4304	0.1611	0.0185
	8	1.0000	1.0000	1.0000	0.9999	0.9994	0.9941	0.9673	0.8811	0.6873	0.3826	0.0896
	9	1.0000	1.0000	1.0000	1.0000	1.0000	0.9993	0.9941	0.9698	0.8870	0.6779	0.3026
	10	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.9995	0.9964	0.9802	0.9141	0.6862
	11	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
12	0	0.5404	0.2824	0.0687	0.0317	0.0138	0.0022	0.0002	0.0000	0.0000	0.0000	0.0000
	1	0.8816	0.6590	0.2749	0.1584	0.0850	0.0196	0.0032	0.0003	0.0000	0.0000	0.0000
]	2	0.9804	0.8891	0.5583	0.3907	0.2528	0.0834	0.0193	0.0028	0.0002	0.0000	0.0000
	3	0.9978	0.9744	0.7946	0.6488	0.4925	0.2253	0.0730	0.0153	0.0017	0.0001	0.0000
	4	0.9998	0.9957	0.9274	0.8424	0.7237	0.4382	0.1938	0.0573	0.0095	0.0006	0.0000
1	5	1.0000	0.9995	0.9806	0.9456	0.8822	0.6652	0.3872	0.1582	0.0386	0.0039	0.0001
	6	1.0000	0.9999	0.9961	0.9857	0.9614	0.8418	0.6128	0.3348	0.1178	0.0194	0.0005
	7	1.0000	1.0000	0.9994	0.9972	0.9905	0.9427	0.8062	0.5618	0.2763	0.0726	0.0043
	8	1.0000	1.0000	0.9999	0.9996	0.9983	0.9847	0.9270	0.7747	0.5075	0.2054	0.0256
	9	1.0000	1.0000	1.0000							0.4417	
	10	1.0000	1.0000	1.0000	1.0000						0.7251	0.3410
	11	1.0000	1.0000	1.0000				0.9998	0.9978	0.9862	0.9313	0.7176
	12		1.0000						1.0000			1.0000
13	$\begin{bmatrix} 0 \end{bmatrix}$				0.0238					0.0000		0.0000
	1	0.8646			0.1267						0.0000	
	2										0.0000	
	3	0.9969									0.0000	1
	4		• • • • • •								0.0002	
	5	1.0000									0.0012	
	6	1.0000	0.9999								0.0070	7
	7										0.0300	
	8	1.0000		0.9998							0.0991	
	9	1.0000									0.2527	
	i I											0.1339
	11										0.7664	
	12										0.9450	
	13				1.0000						1.0000	- 1
14	0	0.4877									0.0000	
	1										0.0000	
	2										0.0000	
	3										0.0000	
Ш	4	0.9996	0.9908	0.8/02	U. /415	0.5842	0.2793	0.0898	0.0175	0.0017	0.0000	0.0000



						p						
n	c	0.05	0.1	0.2	0.25	0.3	0.4	0.5	0.6	0.7	0.8	0.9
14	5	1.0000	0.9985	0.9561	0.8883	0.7805	0.4859	0.2120	0.0583	0.0083	0.0004	0.0000
	6	1.0000	0.9998	0.9884	0.9617	0.9067	0.6925	0.3953	0.1501	0.0315	0.0024	0.0000
	7	1.0000	1.0000	0.9976	0.9897	0.9685	0.8499	0.6047	0.3075	0.0933	0.0116	0.0002
	8	1.0000	1.0000	0.9996	0.9978	0.9917	0.9417	0.7880	0.5141	0.2195	0.0439	0.0015
	9	1.0000	1.0000	1.0000	0.9997	0.9983	0.9825	0.9102	0.7207	0.4158	0.1298	0.0092
	10	1.0000	1.0000	1.0000	1.0000	0.9998	0.9961	0.9713	0.8757	0.6448	0.3018	0.0441
	11	1.0000	1.0000	1.0000	1.0000	1.0000	0.9994	0.9935	0.9602	0.8392	0.5519	0.1584
	12	1.0000	1.0000	1.0000	1.0000	1.0000	0.9999	0.9991	0.9919	0.9525	0.8021	0.4154
	13	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.9999	0.9992	0.9932	0.9560	0.7712
	14	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
15	0	0.4633	0.2059	0.0352	0.0134	0.0047	0.0005	0.0000	0.0000	0.0000	0.0000	0.0000
	1	0.8290	0.5490	0.1671	0.0802	0.0353	0.0052	0.0005	0.0000	0.0000	0.0000	0.0000
	2	0.9638	0.8159	0.3980	0.2361	0.1268	0.0271	0.0037	0.0003	0.0000	0.0000	0.0000
	3	0.9945	0.9444	0.6482	0.4613	0.2969	0.0905	0.0176	0.0019	0.0001	0.0000	0.0000
	4	0.9994	0.9873			0.5155		0.0592			0.0000	0.0000
	5	0.9999	0.9978			0.7216						0.0000
	6	1.0000	0.9997			0.8689						0.0000
	7	1.0000		0.9958								0.0000
	8	1.0000	1.0000			0.9848		0.6964			0.0181	0.0003
	9	1.0000	1.0000	0.9999	0.9992	0.9963				0.2784		0.0022
	10	1.0000	1.0000					•			0.1642	
	11	1.0000	1.0000	1.0000		0.9999		0.9824				0.0556
	12	1.0000	1.0000	1.0000	1.0000	1.0000				0.8732		0.1841
	13	1.0000	1.0000	1.0000	1.0000		1.0000	0.9995		0.9647		0.4510
	14	1.0000	1.0000	1.0000	1.0000		1.0000		0.9995			0.7941
1,	15	1.0000	1.0000			1.0000			1.0000		1.0000	1.0000
16	0	0.4401	0.1853	0.0281 0.1407		0.0033					0.0000	0.0000
	1 2	0.8108		0.1407								
	3			0.5981								
	4			0.7982								
	5			0.7382								
	6			0.9733								
	7			0.9930								
	8			0.9985								
	U	1.0000	1.0000	0.2702	0.7743	U.J/TJ	0.0511	0.2702	0.2037	0.0744	0.0070	0.0001



						p						
n	c	0.05	0.1	0.2	0.25	0.3	0.4	0.5	0.6	0.7	0.8	0.9
16	9	1.0000	1.0000	0.9998	0.9984	0.9929	0.9417	0.7728	0.4728	0.1753	0.0267	0.0005
	10	1.0000	1.0000	1.0000	0.9997	0.9984	0.9809	0.8949	0.6712	0.3402	0.0817	0.0033
	11	1.0000	1.0000	1.0000	1.0000	0.9997	0.9951	0.9616	0.8334	0.5501	0.2018	0.0170
	12	1.0000	1.0000	1.0000	1.0000	1.0000	0.9991	0.9894	0.9349	0.7541	0.4019	0.0684
	13	1.0000	1.0000	1.0000	1.0000	1.0000	0.9999	0.9979	0.9817	0.9006	0.6482	0.2108
	14	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.9997	0.9967	0.9739	0.8593	0.4853
	15	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.9997	0.9967	0.9719	0.8147
	16	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
17	0	0.4181	0.1668	0.0225	0.0075	0.0023	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000
	1	0.7922	0.4818	0.1182	0.0501	0.0193	0.0021	0.0001	0.0000	0.0000	0.0000	0.0000
	2	0.9497	0.7618	0.3096	0.1637	0.0774	0.0123	0.0012	0.0001	0.0000	0.0000	0.0000
	3	0.9912	0.9174		0.3530	0.2019	0.0464	0.0064	0.0005	0.0000	0.0000	0.0000
	4	0.9988	0.9779	0.7582	0.5739	0.3887	0.1260	0.0245	0.0025	0.0001	0.0000	0.0000
	5	0.9999	0.9953	0.8943	0.7653	0.5968	0.2639	0.0717	0.0106	0.0007	0.0000	0.0000
	6	1.0000	0.9992	0.9623	0.8929	0.7752	0.4478	0.1662	0.0348	0.0032	0.0001	0.0000
İ	7	1.0000	0.9999	0.9891	0.9598	0.8954	0.6405	0.3145	0.0919	0.0127	0.0005	0.0000
	8	1.0000	1.0000	0.9974		0.9597		0.5000		0.0403	0.0026	0.0000
	9	1.0000	1.0000	0.9995	0.9969		0.9081		0.3595	0.1046	0.0109	0.0001
	10	1.0000	1.0000	0.9999	0.9994		0.9652		0.5522		0.0377	0.0008
	11	1.0000	1.0000	1.0000	0.9999	0.9993	0.9894	0.9283	0.7361	0.4032	0.1057	0.0047
	12	1.0000	1.0000	1.0000	1.0000	0.9999	0.9975	0.9755	0.8740	0.6113	0.2418	0.0221
	13	1.0000	1.0000	1.0000	1.0000	1.0000	0.9995		0.9536		0.4511	0.0826
	14	1.0000	1.0000	1.0000	1.0000	1.0000	0.9999	0.9988	0.9877	0.9226	0.6904	0.2382
	15	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.9999		0.9807	0.8818	0.5182
	16	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.9998	0.9977	0.9775	0.8332
1.0	17	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
18	0	0.3972	0.1501	0.0180	0.0056		0.0001	0.0000		0.0000	0.0000	0.0000
	1	0.7735	0.4503	0.0991			0.0013	0.0001	0.0000	0.0000	0.0000	0.0000
	2	0.9419	0.7338						0.0000		0.0000	0.0000
	3				0.3057							
	4				0.5187							
1	5				0.7175							
	6				0.8610							
	7				0.9431							
	8	1.0000	1.0000	0.9957	0.9807	0.9404	0.7368	0.4073	0.1347	0.0210	0.0009	0.0000



						p						
n	c	0.05	0.1	0.2	0.25	0.3	0.4	0.5	0.6	0.7	0.8	0.9
18	9	1.0000	1.0000	0.9991	0.9946	0.9790	0.8653	0.5927	0.2632	0.0596	0.0043	0.0000
	10	1.0000	1.0000	0.9998	0.9988	0.9939	0.9424	0.7597	0.4366	0.1407	0.0163	0.0002
	11	1.0000	1.0000	1.0000	0.9998	0.9986	0.9797	0.8811	0.6257	0.2783	0.0513	0.0012
	12	1.0000	1.0000	1.0000	1.0000	0.9997	0.9942	0.9519	0.7912	0.4656	0.1329	0.0064
	13	1.0000	1.0000	1.0000	1.0000	1.0000	0.9987	0.9846	0.9058	0.6673	0.2836	0.0282
	14	1.0000	1.0000	1.0000	1.0000	1.0000	0.9998	0.9962	0.9672	0.8354	0.4990	0.0982
	15	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.9993	0.9918	0.9400	0.7287	0.2662
	16	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.9999	0.9987	0.9858	0.9009	0.5497
	17	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.9999	0.9984	0.9820	0.8499
	18	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
19	0	0.3774	0.1351	0.0144	0.0042	0.0011	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000
	1	0.7547	0.4203	0.0829	0.0310	0.0104	0.0008	0.0000	0.0000	0.0000	0.0000	0.0000
	2	0.9335	0.7054	0.2369	0.1113	0.0462	0.0055	0.0004	0.0000	0.0000	0.0000	0.0000
	3	0.9868	0.8850	0.4551			0.0230					0.0000
	4	0.9980	0.9648	0.6733			0.0696					0.0000
	5	0.9998	0.9914	0.8369	0.6678	0.4739	0.1629					0.0000
	6	1.0000	0.9983		0.8251			0.0835				0.0000
	7	1.0000	0.9997	0.9767			0.4878					0.0000
	8	1.0000	1.0000	0.9933			0.6675					0.0000
	9	1.0000		0.9984			0.8139					0.0000
	10	1.0000	1.0000	0.9997							0.0067	0.0000
	11	1.0000	1.0000	1.0000			0.9648					0.0003
	12	1.0000	1.0000	1.0000	0.9999		0.9884				0.0676	
	13	1.0000	1.0000	1.0000			0.9969			0.5261		0.0086
	14	1.0000	1.0000	1.0000	1.0000	1.0000		0.9904			0.3267	0.0352
	15	1.0000	1.0000				0.9999			0.8668		0.1150
	16	1.0000	1.0000	1.0000	1.0000	1.0000		0.9996		0.9538		0.2946
	17	1.0000		1.0000	1.0000	1.0000		1.0000				0.5797
	18										0.9856	
											1.0000	
20											0.0000	
	1										0.0000	
	2										0.0000	
	3										0.0000	
	4	0.9974	0.9568	0.6296	0.4148	0.2375	0.0510	0.0059	0.0003	0.0000	0.0000	0.0000



_												
						p						
n	c	0.05	0.1	0.2	0.25	0.3	0.4	0.5	0.6	0.7	0.8	0.9
20	5	0.9997	0.9887	0.8042	0.6172	0.4164	0.1256	0.0207	0.0016	0.0000	0.0000	0.0000
	6	1.0000	0.9976	0.9133	0.7858	0.6080	0.2500	0.0577	0.0065	0.0003	0.0000	0.0000
	7	1.0000			0.8982	0.7723	0.4159	0.1316	0.0210	0.0013	0.0000	0.0000
	8	1.0000	0.9999	0.9900	0.9591	0.8867	0.5956	0.2517	0.0565	0.0051	0.0001	0.0000
	9	1.0000	1.0000		0.9861		0.7553					0.0000
	10	1.0000	1.0000	0.9994	0.9961	0.9829	0.8725	0.5881	0.2447	0.0480	0.0026	0.0000
	11	1.0000	1.0000	0.9999	0.9991	0.9949	0.9435	0.7483	0.4044	0.1133	0.0100	0.0001
	12	1.0000	1.0000	1.0000	0.9998	0.9987	0.9790	0.8684	0.5841	0.2277	0.0321	0.0004
	13	1.0000	1.0000	1.0000	1.0000	0.9997	0.9935	0.9423	0.7500	0.3920	0.0867	0.0024
	14	1.0000	1.0000	1.0000	1.0000	1.0000	0.9984	0.9793	0.8744	0.5836	0.1958	0.0113
	15	1.0000	1.0000	1.0000	1.0000	1.0000	0.9997	0.9941	0.9490	0.7625	0.3704	0.0432
1	16	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.9987	0.9840	0.8929	0.5886	0.1330
	17	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.9998	0.9964	0.9645	0.7939	0.3231
	18	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.9995	0.9924	0.9308	0.6083
	19	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.9992	0.9885	0.8784
	20	1.0000	1.0000	1.0000		1.0000			1.0000	1.0000	1.0000	1.0000
21	0	0.3406	0.1094	0.0092	0.0024	0.0006	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	1	0.7170			0.0190				0.0000	0.0000	0.0000	0.0000
	2	0.9151	0.6484	0.1787	0.0745	0.0271	0.0024	0.0001	0.0000	0.0000	0.0000	0.0000
	3	0.9811	0.8480	0.3704	0.1917	0.0856	0.0110	0.0007	0.0000	0.0000	0.0000	0.0000
	4	0.9968	0.9478		0.3674				0.0002	0.0000	0.0000	0.0000
	5	0.9996	0.9856	0.7693	0.5666	0.3627	0.0957	0.0133	0.0008	0.0000	0.0000	0.0000
	6	1.0000	0.9967		0.7436		0.2002	0.0392	0.0036	0.0001	0.0000	0.0000
	7		0.9994		0.8701		0.3495				0.0000	0.0000
	8				0.9439						0.0000	0.0000
	9	1.0000	1.0000		0.9794				0.0849	0.0087	0.0002	0.0000
	10		1.0000		0.9936					0.0264		0.0000
	11				0.9983							0.0000
	1 1				0.9996							
					0.9999	n.						
	1 1				1.0000							
	1 1				1.0000							
	16				1.0000							
	17				1.0000							
	18	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.9999	0.9976	0.9729	0.8213	0.3516

				v			*****					
n	c	0.05	0.1	0.2	0.25	0.3	0.4	0.5	0.6	0.7	0.8	0.9
21	19	1.0000		1.0000	1.0000						0.9424	
	20	1.0000	1.0000	1.0000			1.0000		1.0000		0.9908	
	21	1.0000	1.0000	1.0000				1.0000	1.0000		1.0000	1.0000
22	0	0.3235	0.0985				0.0000				0.0000	0.0000
i	1	0.6982	0.3392		0.0149					0.0000	0.0000	0.0000
	2	0.9052	0.6200	0.1545	0.0606	0.0207	0.0016	0.0001	0.0000	0.0000	0.0000	0.0000
	3	0.9778	0.8281	0.3320	0.1624	0.0681	0.0076	0.0004	0.0000	0.0000	0.0000	0.0000
	4	0.9960	0.9379	0.5429	0.3235	0.1645	0.0266	0.0022	0.0001	0.0000	0.0000	0.0000
	5	0.9994	0.9818	0.7326	0.5168	0.3134	0.0722	0.0085	0.0004	0.0000	0.0000	0.0000
	6	0.9999	0.9956	0.8670	0.6994	0.4942	0.1584	0.0262	0.0019	0.0000	0.0000	0.0000
	7	1.0000	0.9991	0.9439	0.8385	0.6713	0.2898	0.0669	0.0070	0.0002	0.0000	0.0000
	8	1.0000	0.9999	0.9799	0.9254	0.8135	0.4540	0.1431	0.0215	0.0011	0.0000	0.0000
	9	1.0000	1.0000	0.9939	0.9705	0.9084	0.6244	0.2617	0.0551	0.0043	0.0001	0.0000
	10	1.0000	1.0000	0.9984	0.9900	0.9613	0.7720	0.4159	0.1207	0.0140	0.0003	0.0000
	11	1.0000	1.0000	0.9997	0.9971	0.9860	0.8793	0.5841	0.2280	0.0387	0.0016	0.0000
	12	1.0000	1.0000	0.9999	0.9993	0.9957	0.9449	0.7383	0.3756	0.0916	0.0061	0.0000
	13	1.0000	1.0000	1.0000	0.9999	0.9989	0.9785	0.8569	0.5460	0.1865	0.0201	0.0001
	14	1.0000	1.0000	1.0000	1.0000	0.9998		0.9331	0.7102	0.3287	0.0561	0.0009
	15	1.0000	1.0000	1.0000	1.0000		0.9981		0.8416		0.1330	0.0044
	16	1.0000	1.0000				0.9996					0.0182
	17	1.0000	1.0000				0.9999					0.0621
	18	1.0000	1.0000			1.0000	1.0000		0.9924		0.6680	0.1719
	19	1.0000	1.0000				1.0000					0.3800
	20	1.0000	1.0000	1.0000	1.0000	1.0000		1.0000			0.9520	0.6608
	21	1.0000					,				0.9926	
ار	22	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000		1.0000	1.0000	1.0000	1.0000
23	0	0.3074	0.0886	0.0059			0.0000		0.0000	0.0000	0.0000	0.0000
	2				0.0116							0.0000
	3				0.0492							
	4				0.1370							
	5				0.4685							
	6				0.6537							
	7				0.8037							
	8				0.9037							
ட		210000		3.2 121	3.7 00 7	3	7.2001	3.1000	3.0120	3.000	3.0000	3.0000



						p						
n	c	0.05	0.1	0.2	0.25	0.3	0.4	0.5	0.6	0.7	0.8	0.9
23	9	1.0000	1.0000	0.9911	0.9592	0.8799	0.5562	0.2024	0.0349	0.0021	0.0000	0.0000
	10	1.0000	1.0000	0.9975	0.9851	0.9454	0.7129	0.3388	0.0813	0.0072	0.0001	0.0000
	11	1.0000	1.0000	0.9994	0.9954	0.9786	0.8364	0.5000	0.1636	0.0214	0.0006	0.0000
	12	1.0000	1.0000	0.9999	0.9988	0.9928	0.9187	0.6612	0.2871	0.0546	0.0025	0.0000
	13	1.0000	1.0000	1.0000	0.9997	0.9979	0.9651	0.7976	0.4438	0.1201	0.0089	0.0000
	14	1.0000	1.0000	1.0000	0.9999	0.9995	0.9872	0.8950	0.6116	0.2291	0.0273	0.0002
	15	1.0000	1.0000	1.0000	1.0000	0.9999	0.9960	0.9534	0.7627	0.3819	0.0715	0.0012
	16	1.0000	1.0000	1.0000	1.0000	1.0000	0.9990	0.9827	0.8760	0.5601	0.1598	0.0058
	17	1.0000	1.0000	1.0000	1.0000	1.0000	0.9998	0.9947	0.9460	0.7312	0.3053	0.0226
	18	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.9987	0.9810	0.8644	0.4993	0.0731
	19	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.9998	0.9948	0.9462	0.7035	0.1927
	20	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.9990	0.9843	0.8668	0.4080
	21	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.9999	0.9970	0.9602	0.6849
	22	1.0000	1.0000	1.0000	1.0000		1.0000	1.0000		0.9997	0.9941	0.9114
	23	1.0000	1.0000	1.0000	1.0000	1.0000		1.0000		1.0000	1.0000	1.0000
24	$\mid 0 \mid$	0.2920	0.0798		0.0010							
	1		0.2925		0.0090						0.0000	
	2	0.8841	0.5643		0.0398					0.0000	0.0000	
	3				0.1150						0.0000	
	4	0.9940	0.9149		0.2466					0.0000	0.0000	
	5	0.9990	0.9723		0.4222							
	6	0.9999	0.9925	0.8111			0.0960				0.0000	
	7	1.0000	0.9983		0.7662						0.0000	l
	8	1.0000	0.9997		0.8787						0.0000	
ł	9	1.0000	0.9999		0.9453				0.0217		0.0000	ſ
	10	1.0000	1.0000		0.9787							
	11	1.0000			0.9928							
	12	1.0000			0.9979							0.0000
					0.9999							i
	1				1.0000							
	1				1.0000							
					1.0000							
					1.0000							i
					1.0000							
Ц_	17	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	U.7774	0.7000	0.0009	0.5401	0.0051



						p				***************************************		
n	c	0.05	0.1	0.2	0.25	0.3	0.4	0.5	0.6	0.7	0.8	0.9
24	20	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.9999	0.9965	0.9576	0.7361	0.2143
	21	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.9993	0.9881	0.8855	0.4357
	22	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.9999	0.9978	0.9669	0.7075
	23	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.9998	0.9953	0.9202
	24	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
25	0	0.2774	0.0718	0.0038	0.0008	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
l	1	0.6424	0.2712	0.0274	0.0070	0.0016	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000
	2	0.8729	0.5371	0.0982	0.0321	0.0090	0.0004	0.0000	0.0000	0.0000	0.0000	0.0000
	3	0.9659	0.7636	0.2340	0.0962	0.0332	0.0024	0.0001	0.0000	0.0000	0.0000	0.0000
	4	0.9928	0.9020	0.4207	0.2137	0.0905	0.0095	0.0005	0.0000	0.0000	0.0000	0.0000
	5	0.9988	0.9666	0.6167	0.3783	0.1935	0.0294	0.0020	0.0001	0.0000	0.0000	0.0000
	6	0.9998	0.9905	0.7800	0.5611	0.3407	0.0736	0.0073	0.0003	0.0000	0.0000	0.0000
	7	1.0000	0.9977	0.8909	0.7265	0.5118	0.1536	0.0216	0.0012	0.0000	0.0000	0.0000
	8	1.0000	0.9995	0.9532	0.8506	0.6769	0.2735	0.0539	0.0043	0.0001	0.0000	0.0000
	9	1.0000	0.9999	0.9827	0.9287	0.8106	0.4246	0.1148	0.0132	0.0005	0.0000	0.0000
	10	1.0000	1.0000	0.9944	0.9703	0.9022	0.5858	0.2122	0.0344	0.0018	0.0000	0.0000
	11	1.0000	1.0000	0.9985	0.9893	0.9558	0.7323	0.3450	0.0778	0.0060	0.0001	0.0000
	12	1.0000	1.0000	0.9996	0.9966	0.9825	0.8462	0.5000	0.1538	0.0175	0.0004	0.0000
	13	1.0000	1.0000	0.9999	0.9991	0.9940	0.9222	0.6550	0.2677	0.0442	0.0015	0.0000
	14	1.0000	1.0000	1.0000	0.9998	0.9982	0.9656	0.7878	0.4142	0.0978	0.0056	0.0000
	15	1.0000	1.0000	1.0000	1.0000	0.9995	0.9868	0.8852	0.5754	0.1894	0.0173	0.0001
	16	1.0000	1.0000	1.0000	1.0000	0.9999	0.9957	0.9461	0.7265	0.3231	0.0468	0.0005
	17	1.0000	1.0000	1.0000	1.0000	1.0000	0.9988	0.9784	0.8464	0.4882	0.1091	0.0023
	18	1.0000	1.0000	1.0000	1.0000	1.0000	0.9997	0.9927	0.9264	0.6593	0.2200	0.0095
	19	1.0000	1.0000	1.0000	1.0000	1.0000	0.9999	0.9980	0.9706	0.8065	0.3833	0.0334
	20	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.9995	0.9905	0.9095	0.5793	0.0980
	21	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.9999	0.9976	0.9668	0.7660	0.2364
	22	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.9996	0.9910	0.9018	0.4629
	23	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.9999	0.9984	0.9726	0.7288
	24	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.9999	0.9962	0.9282
	25	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000



附表二: 卜松分配之累積機率值

$$P(X \le c) = \sum_{x=0}^{c} \frac{\mu^{x} e^{-\mu}}{x!}$$

							μ			_			
c	0.05	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1	1.2	1.4
0	0.951	0.905	0.819	0.741	0.670	0.607	0.549	0.497	0.449	0.407	0.368	0.301	0.247
1	0.999	0.995	0.982	0.963	0.938	0.910	0.878	0.844	0.809	0.772	0.736	0.663	0.592
2	1.000	1.000	0.999	0.996	0.992	0.986	0.977	0.966	0.953	0.937	0.920	0.879	0.833
3	1.000	1.000	1.000	1.000	0.999	0.998	0.997	0.994	0.991	0.987	0.981	0.966	0.946
4	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.999	0.999	0.998	0.996	0.992	0.986
5	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.999	0.998	0.997
6	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.999
7	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
8	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Ī							μ						
c	1.6	1.8	2	2.2	2.4	2.6	2.8	3	3.2	3.4	3.6	3.8	4
0	0.202	0.165	0.135	0.111	0.091	0.074	0.061	0.050	0.041	0.033	0.027	0.022	0.018
1	0.525	0.463	0.406	0.355	0.308	0.267	0.231	0.199	0.171	0.147	0.126	0.107	0.092
2	0.783	0.731	0.677	0.623	0.570	0.518	0.469	0.423	0.380	0.340	0.303	0.269	0.238
3	0.921	0.891	0.857	0.819	0.779	0.736	0.692	0.647	0.603	0.558	0.515	0.473	0.433
4	0.976	0.964	0.947	0.928	0.904	0.877	0.848	0.815	0.781	0.744	0.706	0.668	0.629
5	0.994	0.990	0.983	0.975	0.964	0.951	0.935	0.916	0.895	0.871	0.844	0.816	0.785
6	0.999	0.997	0.995	0.993	0.988	0.983	0.976	0.966	0.955	0.942	0.927	0.909	0.889
7	1.000	0.999	0.999	0.998	0.997	0.995	0.992	0.988	0.983	0.977	0.969	0.960	0.949
8	1.000	1.000	1.000	1.000	0.999	0.999	0.998	0.996	0.994	0.992	0.988	0.984	0.979
9	1.000	1.000	1.000	1.000	1.000	1.000	0.999	0.999	0.998	0.997	0.996	0.994	0.992
10	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.999	0.999	0.998	0.997
11	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.999	0.999
12	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
13	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
14	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000



卜松分配之累積機率值(續)

							μ						
c	4.5	5	5.5	6	6.5	7	7.5	8	8.5	9	9.5	10	10.5
0	0.011	0.007	0.004	0.002	0.002	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000
1	0.061	0.040	0.027	0.017	0.011	0.007	0.005	0.003	0.002	0.001	0.001	0.000	0.000
2	0.174	0.125	0.088	0.062	0.043	0.030	0.020	0.014	0.009	0.006	0.004	0.003	0.002
3	0.342	0.265	0.202	0.151	0.112	0.082	0.059	0.042	0.030	0.021	0.015	0.010	0.007
4	0.532	0.440	0.358	0.285	0.224	0.173	0.132	0.100	0.074	0.055	0.040	0.029	0.021
5	0.703	0.616	0.529	0.446	0.369	0.301	0.241	0.191	0.150	0.116	0.089	0.067	0.050
6	0.831	0.762	0.686	0.606	0.527	0.450	0.378	0.313	0.256	0.207	0.165	0.130	0.102
7	0.913	0.867	0.809	0.744	0.673	0.599	0.525	0.453	0.386	0.324	0.269	0.220	0.179
8	0.960	0.932	0.894	0.847	0.792	0.729	0.662	0.593	0.523	0.456	0.392	0.333	0.279
9	0.983	0.968	0.946	0.916	0.877	0.830	0.776	0.717	0.653	0.587	0.522	0.458	0.397
10	0.993	0.986	0.975	0.957	0.933	0.901	0.862	0.816	0.763	0.706	0.645	0.583	0.521
11	0.998	0.995	0.989	0.980	0.966	0.947	0.921	0.888	0.849	0.803	0.752	0.697	0.639
12	0.999	0.998	0.996	0.991	0.984	0.973	0.957	0.936	0.909	0.876	0.836	0.792	0.742
13	1.000	0.999	0.998	0.996	0.993	0.987	0.978	0.966	0.949	0.926	0.898	0.864	0.825
14	1.000	1.000	0.999	0.999	0.997	0.994	0.990	0.983	0.973	0.959	0.940	0.917	0.888
15	1.000	1.000	1.000	0.999	0.999	0.998	0.995	0.992	0.986	0.978	0.967	0.951	0.932
16	1.000	1.000	1.000	1.000	1.000	0.999	0.998	0.996	0.993	0.989	0.982	0.973	0.960
17	1.000	1.000	1.000	1.000	1.000	1.000	0.999	0.998	0.997	0.995	0.991	0.986	0.978
18	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.999	0.999	0.998	0.996	0.993	0.988
19	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.999	0.999	0.998	0.997	0.994
20	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.999	0.998	0.997
21	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.999	0.999
22	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.999
23	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
24	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
25	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

							μ						
c	11	12	13	14	15	16	17	18	19	20	21	- 22	23
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3	0.005	0.002	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4	0.015	0.008	0.004	0.002	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5	0.038	0.020	0.011	0.006	0.003	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000
6	0.079	0.046	0.026	0.014	0.008	0.004	0.002	0.001	0.001	0.000	0.000	0.000	0.000
7	0.143	0.090	0.054	0.032	0.018	0.010	0.005	0.003	0.002	0.001	0.000	0.000	0.000

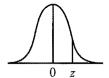


卜松分配之累積機率值(續)

	и													
	11	12	12	1.4	1.5	16	μ	10	10	20	21	22	22	
$\frac{c}{\circ}$	11	12	13	14	15	16	17	18	19	20	21	22	23	
8 9	0.232	0.155 0.242	0.100	0.062	0.037	0.022	0.013	0.007	0.004	0.002	0.001	0.001	0.000	
1			0.166	0.109	0.070	0.043	0.026	0.015	0.009	0.005	0.003	0.002	0.001	
10	0.460	0.347	0.252	0.176	0.118	0.077	0.049	0.030	0.018	0.011	0.006	0.004	0.002	
11	0.579	0.462	0.353	0.260	0.185	0.127	0.085	0.055	0.035	0.021	0.013	0.008	0.004	
12	0.689	0.576	0.463	0.358	0.268	0.193	0.135	0.092	0.061	0.039	0.025	0.015	0.009	
13	0.781	0.682	0.573	0.464	0.363	0.275	0.201	0.143	0.098	0.066	0.043	0.028	0.017	
14	0.854	0.772	0.675	0.570	0.466	0.368	0.281	0.208	0.150	0.105	0.072	0.048	0.031	
15	0.907	0.844	0.764	0.669	0.568	0.467	0.371	0.287	0.215	0.157	0.111	0.077	0.052	
16	0.944	0.899	0.835	0.756	0.664	0.566	0.468	0.375	0.292	0.221	0.163	0.117	0.082	
17	0.968	0.937	0.890	0.827	0.749	0.659	0.564	0.469	0.378	0.297	0.227	0.169	0.123	
18	0.982	0.963	0.930	0.883	0.819	0.742	0.655	0.562	0.469	0.381	0.302	0.232	0.175	
19	0.991	0.979	0.957	0.923	0.875	0.812	0.736	0.651	0.561	0.470	0.384	0.306	0.238	
20	0.995	0.988	0.975	0.952	0.917	0.868	0.805	0.731	0.647	0.559	0.471	0.387	0.310	
21	0.998	0.994	0.986	0.971	0.947	0.911	0.861	0.799	0.725	0.644	0.558	0.472	0.389	
22	0.999	0.997	0.992	0.983	0.967	0.942	0.905	0.855	0.793	0.721	0.640	0.556	0.472	
23	1.000	0.999	0.996	0.991	0.981	0.963	0.937	0.899	0.849	0.787	0.716	0.637	0.555	
24	1.000	0.999	0.998	0.995	0.989	0.978	0.959	0.932	0.893	0.843	0.782	0.712	0.635	
25	1.000	1.000	0.999	0.997	0.994	0.987	0.975	0.955	0.927	0.888	0.838	0.777	0.708	
26	1.000	1.000	1.000	0.999	0.997	0.993	0.985	0.972	0.951	0.922	0.883	0.832	0.772	
27	1.000	1.000	1.000	0.999	0.998	0.996	0.991	0.983	0.969	0.948	0.917	0.877	0.827	
28	1.000	1.000	1.000	1.000	0.999	0.998	0.995	0.990	0.980	0.966	0.944	0.913	0.873	
29 30	1.000	1.000	1.000	1.000	1.000	0.999	0.997	0.994	0.988	0.978	0.963	0.940	0.908	
31	1.000	1.000	1.000	1.000	1.000	0.999 1.000	0.999	0.997	0.993	0.987	0.976	0.959	0.936	
32	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.998	0.998	0.992	0.985	0.973	0.956	
33	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.998	0.993	0.991	0.989	0.971	
34	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.999	0.999	0.997	0.989	0.988	
35	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.999	0.998	0.996	0.993	
36	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.999	0.998	0.996	
1	1.000	1.000	1.000	l		1.000	1.000	1.000	1.000	1.000	0.999	0.999	0.997	
1	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.999	0.999	
	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.999	
40	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
41	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
42	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
	1.000	1.000	1,000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	

附表三:標準常態分配之累積機率值

$$P(Z \le z) = \int_{-\infty}^{z} \frac{1}{\sqrt{2\pi}} e^{-\frac{x^{2}}{2}} dx$$



	·						***************************************		V	Z
z	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
-3.5	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002
-3.4	0.0003	0.0003	0.0003	0.0003	0.0003	0.0003	0.0003	0.0003	0.0003	0.0002
-3.3	0.0005	0.0005	0.0005	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0003
3.2	0.0007	0.0007	0.0006	0.0006	0.0006	0.0006	0.0006	0.0005	0.0005	0.0005
-3.1	0.0010	0.0009	0.0009	0.0009	0.0008	0.0008	0.0008	0.0008	0.0007	0.0007
-3.0	0.0013	0.0013	0.0013	0.0012	0.0012	0.0011	0.0011	0.0011	0.0010	0.0010
-2.9	0.0019	0.0018	0.0018	0.0017	0.0016	0.0016	0.0015	0.0015	0.0014	0.0014
-2.8	0.0026	0.0025	0.0024	0.0023	0.0023	0.0022	0.0021	0.0021	0.0020	0.0019
-2.7	0.0035	0.0034	0.0033	0.0032	0.0031	0.0030	0.0029	0.0028	0.0027	0.0026
-2.6	0.0047	0.0045	0.0044	0.0043	0.0041	0.0040	0.0039	0.0038	0.0037	0.0036
-2.5	0.0062	0.0060	0.0059	0.0057	0.0055	0.0054	0.0052	0.0051	0.0049	0.0048
-2.4	0.0082	0.0080	0.0078	0.0075	0.0073	0.0071	0.0069	0.0068	0.0066	0.0064
-2.3	0.0107	0.0104	0.0102	0.0099	0.0096	0.0094	0.0091	0.0089	0.0087	0.0084
-2.2	0.0139	0.0136	0.0132	0.0129	0.0125	0.0122	0.0119	0.0116	0.0113	0.0110
-2.1	0.0179	0.0174	0.0170	0.0166	0.0162	0.0158	0.0154	0.0150	0.0146	0.0143
-2.0	0.0228	0.0222	0.0217	0.0212	0.0207	0.0202	0.0197	0.0192	0.0188	0.0183
-1.9	0.0287	0.0281	0.0274	0.0268	0.0262	0.0256	0.0250	0.0244	0.0239	0.0233
-1.8	0.0359	0.0351	0.0344	0.0336	0.0329	0.0322	0.0314	0.0307	0.0301	0.0294
-1.7	0.0446	0.0436	0.0427	0.0418	0.0409	0.0401	0.0392	0.0384	0.0375	0.0367
-1.6	0.0548	0.0537	0.0526	0.0516	0.0505	0.0495	0.0485	0.0475	0.0465	0.0455
-1.5	0.0668	0.0655	0.0643	0.0630	0.0618	0.0606	0.0594	0.0582	0.0571	0.0559
-1.4	0.0808	0.0793	0.0778	0.0764	0.0749	0.0735	0.0721	0.0708	0.0694	0.0681
-1.3	0.0968	0.0951	0.0934	0.0918	0.0901	0.0885	0.0869	0.0853	0.0838	0.0823
-1.2	0.1151	0.1131	0.1112	0.1093	0.1075	0.1056	0.1038	0.1020	0.1003	0.0985
-1.1	0.1357	0.1335	0.1314	0.1292	0.1271	0.1251	0.1230	0.1210	0.1190	0.1170
-1.0	0.1587	0.1562	0.1539	0.1515	0.1492	0.1469	0.1446	0.1423	0.1401	0.1379
-0.9	0.1841	0.1814	0.1788	0.1762	0.1736	0.1711	0.1685	0.1660	0.1635	0.1611
-0.8	0.2119	0.2090	0.2061	0.2033	0.2005	0.1977	0.1949	0.1922	0.1894	0.1867
-0.7	0.2420	0.2389	0.2358	0.2327	0.2296	0.2266	0.2236	0.2206	0.2177	0.2148
-0.6	0.2743	0.2709	0.2676	0.2643	0.2611	0.2578	0.2546	0.2514	0.2483	0.2451
-0.5	0.3085	0.3050	0.3015	0.2981	0.2946	0.2912	0.2877	0.2843	0.2810	0.2776
-0.4	0.3446	0.3409	0.3372	0.3336	0.3300	0.3264	0.3228	0.3192	0.3156	0.3121
-0.3	0.3821	0.3783	0.3745	0.3707	0.3669	0.3632	0.3594	0.3557	0.3520	0.3483
-0.2	0.4207	0.4168	0.4129	0.4090	0.4052	0.4013	0.3974	0.3936	0.3897	0.3859
-0.1	0.4602	0.4562	0.4522	0.4483	0.4443	0.4404	0.4364	0.4325	0.4286	0.4247
- 0.0	0.5000	0.4960	0.4920	0.4880	0.4840	0.4801	0.4761	0.4721	0.4681	0.4641



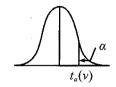
標準常態分配之累積機率值(續)

z	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
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	0.9987	0.9987	0.9987	0.9988	0.9988	0.9989	0.9989	0.9989	0.9990	0.9990
3.1	0.9990	0.9991	0.9991	0.9991	0.9992	0.9992	0.9992	0.9992	0.9993	0.9993
3.2.	0.9993	0.9993	0.9994	0.9994	0.9994	0.9994	0.9994	0.9995	0.9995	0.9995
3.3	0.9995	0.9995	0.9995	0.9996	0.9996	0.9996	0.9996	0.9996	0.9996	0.9997
3.4	0.9997	0.9997	0.9997	0.9997	0.9997	0.9997	0.9997	0.9997	0.9997	0.9998
3.5	0.9998	0.9998	0.9998	0.9998	0.9998	0.9998	0.9998	0.9998	0.9998	0.9998



附表四:t-分配之臨界值

$$P(T \ge t_a(v)) = \alpha$$



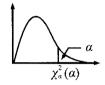
ν表自由度(d.f.)

						x		***************************************		
ν	0.4	0.25	0.1	0.05	0.025	0.01	0.005	0.0025	0.001	0.0005
1	0.3249	1.0000	3.0777	6.3137	12.7062	31.821	63.656	127.321	318.289	636.578
2	0.2887	0.8165	1.8856	2.9200	4.3027	6.9645	9.9250	14.0892	22.3285	31.5998
3	0.2767	0.7649	1.6377	2.3534	3.1824	4.5407	5.8408	7.4532	10.2143	12.9244
4	0.2707	0.7407	1.5332	2.1318	2.7765	3.7469	4.6041	5.5975	7.1729	8,6101
5	0.2672	0.7267	1.4759	2.0150	2.5706	3.3649	4.0321	4.7733	5.8935	6.8685
6	0.2648	0.7176	1.4398	1.9432	2.4469	3.1427	3.7074	4.3168	5.2075	5.9587
7	0.2632	0.7111	1.4149	1.8946	2.3646	2.9979	3.4995	4.0294	4.7853	5.4081
8	0.2619	0.7064	1.3968	1.8595	2.3060	2.8965	3.3554	3.8325	4.5008	5.0414
9	0.2610	0.7027	1.3830	1.8331	2.2622	2.8214	3.2498	3.6896	4.2969	4.7809
10	0.2602	0.6998	1.3722	1.8125	2.2281	2.7638	3.1693	3.5814	4.1437	4.5868
11	0.2596	0.6974	1.3634	1.7959	2.2010	2.7181	3.1058	3.4966	4.0248	4.4369
12	0.2590	0.6955	1.3562	1.7823	2.1788	2.6810	3.0545	3.4284	3.9296	4.3178
13	0.2586	0.6938	1.3502	1.7709	2.1604	2.6503	3.0123	3.3725	3.8520	4.2209
14	0.2582	0.6924	1.3450	1.7613	2.1448	2.6245	2.9768	3.3257	3.7874	4.1403
15	0.2579	0.6912	1.3406	1.7531	2.1315	2.6025	2.9467	3.2860	3.7329	4.0728
16	0.2576	0.6901	1.3368	1.7459	2.1199	2.5835	2.9208	3.2520	3.6861	4.0149
17	0.2573	0.6892	1.3334	1.7396	2.1098	2.5669	2.8982	3.2224	3.6458	3.9651
18	0.2571	0.6884	1.3304	1.7341	2.1009	2.5524	2.8784	3.1966	3.6105	3.9217
19	0.2569	0.6876	1.3277	1.7291	2.0930	2.5395	2.8609	3.1737	3.5793	3.8833
20	0.2567	0.6870	1.3253	1.7247	2.0860	2.5280	2.8453	3.1534	3.5518	3.8496
21	0.2566	0.6864	1.3232	1.7207	2.0796	2.5176	2.8314	3.1352	3.5271	3.8193
22	0.2564	0.6858	1.3212	1.7171	2.0739	2.5083	2.8188	3.1188	3.5050	3.7922
23	0.2563	0.6853	1.3195	1.7139	2.0687	2.4999	2.8073	3.1040	3.4850	3.7676
24	0.2562	0.6848	1.3178	1.7109	2.0639	2.4922	2.7970	3.0905	3.4668	3.7454
25	0.2561	0.6844	1.3163	1.7081	2.0595	2.4851	2.7874	3.0782	3.4502	3.7251
26	0.2560	0.6840	1.3150	1.7056	2.0555	2.4786	2.7787	3.0669	3.4350	3.7067
27	0.2559	0.6837	1.3137	1.7033	2.0518	2.4727	2.7707	3.0565	3.4210	3.6895
28	0.2558	0.6834	1.3125	1.7011	2.0484	2.4671	2.7633	3.0470	3.4082	3.6739
29	0.2557	0.6830	1.3114	1.6991	2.0452	2.4620	2.7564	3.0380	3.3963	3.6595
30	0.2556	0.6828	1.3104	1.6973	2.0423	2.4573	2.7500	3.0298	3.3852	3.6460
40	0.2550	0.6807	1.3031	1.6839	2.0211	2.4233	2.7045	2.9712	3.3069	3.5510
60	0.2545	0.6786	1.2958	1.6706	2.0003	2.3901	2.6603	2.9146	3.2317	3.4602
120	0.2539	0.6765	1.2886	1.6576	1.9799	2.3578	2.6174	2.8599	3.1595	3.3734
∞	0.2534	0.6747	1.2824	1.6464	1.9623	2.3301	2.5807	2.8133	3.0984	3.3002



附表五:卡方分配之臨界值

$$P\left(\chi^2 \ge \chi_\alpha^2(v)\right) = \alpha$$



v表自由度(d.f.)

						χ				
V	0.995	0.99	0.98	0.975	0.95	0.9	0.8	0.75	0.7	0.5
1	0.0000	0.0002	0.0006	0.0010	0.0039	0.0158	0.0642	0.1015	0.1485	0.4549
2	0.0100	0.0201	0.0404	0.0506	0.1026	0.2107	0.4463	0.5754	0.7133	1.3863
3	0.0717	0.1148	0.1848	0.2158	0.3518	0.5844	1.0052	1.2125	1.4237	2.3660
4	0.2070	0.2971	0.4294	0.4844	0.7107	1.0636	1.6488	1.9226	2.1947	3.3567
5	0.4118	0.5543	0.7519	0.8312	1.1455	1.6103	2.3425	2.6746	2.9999	4.3515
6	0.6757	0.8721	1.1344	1.2373	1.6354	2.2041	3.0701	3.4546	3.8276	5.3481
7	0.9893	1.2390	1.5643	1.6899	2.1673	2.8331	3.8223	4.2549	4.6713	6.3458
8	1.3444	1.6465	2.0325	2.1797	2.7326	3.4895	4.5936	5.0706	5.5274	7.3441
9	1.7349	2.0879	2.5324	2.7004	3.3251	4.1682	5.3801	5.8988	6.3933	8.3428
10	2.1558	2.5582	3.0591	3.2470	3.9403	4.8652	6.1791	6.7372	7.2672	9.3418
11	2.6032	3.0535	3.6087	3.8157	4.5748	5.5778	6.9887	7.5841	8.1479	10.3410
12	3.0738	3.5706	4.1783	4.4038	5.2260	6.3038	7.8073	8.4384	9.0343	11.3403
13	3.5650	4.1069	4.7654	5.0087	5.8919	7.0415	8.6339	9.2991	9.9257	12.3398
14	4.0747	4.6604	5.3682	5.6287	6.5706	7.7895	9.4673	10.1653	10.8215	13.3393
15	4.6009	5.2294	5.9849	6.2621	7.2609	8.5468	10.3070	11.0365	11.7212	14.3389
16	5.1422	5.8122	6.6142	6.9077	7.9616	9.3122	11.1521	11.9122	12.6243	15.3385
17	5.6973	6.4077	7.2550	7.5642	8.6718	10.0852	12.0023	12.7919	13.5307	16.3382
18	6.2648	7.0149	7.9062	8.2307	9.3904	10.8649	12.8570	13.6753	14.4399	17.3379
19	6.8439	7.6327	8.5670	8.9065	10.1170	11.6509	13.7158	14.5620	15.3517	18.3376
20	7.4338	8.2604	9.2367	9.5908	10.8508	12.4426	14.5784	15.4518	16.2659	19.3374
21	8.0336	8.8972	9.9145	10.2829	11.5913	13.2396	15.4446	16.3444	17.1823	20.3372
22	8.6427	9.5425	10.6000	10.9823	12.3380	14.0415	16.3140	17.2396	18.1007	21.3370
23	9.2604	10.1957	11.2926	11.6885	13.0905	14.8480	17.1865	18.1373	19.0211	22.3369
24	9.8862	10.8563	11.9918	12.4011	13.8484	15.6587	18.0618	19.0373	19.9432	23.3367
25	10.5196	11.5240	12.6973	13.1197	14.6114	16.4734	18.9397	19.9393	20.8670	24.3366
26	11.1602	12.1982	13.4086	13.8439	15.3792	17.2919	19.8202	20.8434	21.7924	25.3365
27	11.8077	12.8785	14.1254	14.5734	16.1514	18.1139	20.7030	21.7494	22.7192	26.3363
28	12.4613	13.5647	14.8475	15.3079	16.9279	18.9392	21.5880	22.6572	23.6475	27.3362
:29	13.1211	14.2564	15.5745	16.0471	17.7084	19.7677	22.4751	23.5666	24.5770	28.3361
30	13.7867	14.9535	16.3062	16.7908	18.4927	20.5992	23.3641	24.4776	25.5078	29.3360



卡方分配之臨界值(續)

ν表自由度(d.f.)

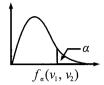
	-				(α		***************************************		
v	0.3	0.25	0.2	0.1	0.05	0.025	0.02	0.01	0.005	0.001
1	1.0742	1.3233	1.6424	2.7055	3.8415	5.0239	5.4119	6.6349	7.8794	10.8274
2	2.4079	2.7726	3.2189	4.6052	5.9915	7.3778	7.8241	9.2104	10.5965	13.8150
3	3.6649	4.1083	4.6416	6.2514	7.8147	9.3484	9.8374	11.3449	12.8381	16.2660
4	4.8784	5.3853	5.9886	7.7794	9.4877	11.1433	11.6678	13.2767	14.8602	18.4662
5	6.0644	6.6257	7.2893	9.2363	11.0705	12.8325	13.3882	15.0863	16.7496	20.5147
6	7.2311	7.8408	8.5581	10.6446	12.5916	14.4494	15.0332	16.8119	18.5475	22.4575
7	8.3834	9.0371	9.8032	12.0170	14.0671	16.0128	16.6224	18.4753	20.2777	24.3213
8	9.5245	10.2189	11.0301	13.3616	15.5073	17.5345	18.1682	20.0902	21.9549	26.1239
9	10.6564	11.3887	12.2421	14.6837	16.9190	19.0228	19.6790	21.6660	23.5893	27.8767
10	11.7807	12.5489	13.4420	15.9872	18.3070	20.4832	21.1608	23.2093	25.1881	29.5879
11	12.8987	13.7007	14.6314	17.2750	19.6752	21.9200	22.6179	24.7250	26.7569	31.2635
12	14.0111	14.8454	15.8120	18.5493	21.0261	23.3367	24.0539	26.2170	28.2997	32.9092
13	15.1187	15.9839	16.9848	19.8119	22.3620	24.7356	25.4715	27.6882	29.8193	34.5274
14	16.2221	17.1169	18.1508	21.0641	23.6848	26.1189	26.8727	29.1412	31.3194	36.1239
15	17.3217	18.2451	19.3107	22.3071	24.9958	27.4884	28.2595	30.5780	32.8015	37.6978
16	18.4179	19.3689	20.4651	23.5418	26.2962	28.8453	29.6332	31.9999	34.2671	39.2518
17	19.5110	20.4887	21.6146	24.7690	27.5871	30.1910	30.9950	33.4087	35.7184	40.7911
18	20.6014	21.6049	22.7595	25.9894	28.8693	31.5264	32.3462	34.8052	37.1564	42.3119
19	21.6891	22.7178	23.9004	27.2036	30.1435	32.8523	33.6874	36.1908	38.5821	43.8194
20	22.7745	23.8277	25.0375	28.4120	31.4104	34.1696	35.0196	37.5663	39.9969	45.3142
21	23.8578	24.9348	26.1711	29.6151	32.6706	35.4789	36.3434	38.9322	41.4009	46.7963
22	24.9390	26.0393	27.3015	30.8133	33.9245	36.7807	37.6595	40.2894	42.7957	48.2676
23	26.0184	27.1413	28.4288	32.0069	35.1725	38.0756	38.9683	41.6383	44.1814	49.7276
24	27.0960	28.2412	29.5533	33.1962	36.4150	39.3641	40.2703	42.9798	45.5584	51.1790
25	28.1719	29.3388	30.6752	34.3816	37.6525	40.6465	41.5660	44.3140	46.9280	52.6187
26	29.2463	30.4346	31.7946	35.5632	38.8851	41.9231	42.8558	45.6416	48.2898	54.0511
27	30.3193	31.5284	32.9117	36.7412	40.1133	43.1945	44.1399	46.9628	49.6450	55.4751
28	31.3909	32.6205	34.0266	37.9159	41.3372	44.4608	45.4188	48.2782	50.9936	56.8918
29	32.4612	33.7109	35.1394	39.0875	42.5569	45.7223	46.6926	49.5878	52.3355	58.3006
30	33.5302	34.7997	36.2502	40.2560	43.7730	46.9792	47.9618	50.8922	53.6719	59.7022



附表六:F分配之臨界值

$$P(F \ge f_{\alpha}(v_{1}, v_{2})) = \alpha$$

$$f_{0.05}(v_{1}, v_{2})$$



		_				ι	, 1					
v_2	1	2	3	4	5	6	7	8	9	10	11	12
1	161.45	199.50	215.71	224.58	230.16	233.99	236.77	238.88	240.54	241.88	242.98	243.90
2	18.513	19.000	19.164	19.247	19.296	19.329	19.353	19.371	19.385	19.396	19.405	19.412
3	10.128	9.5521	9.2766	9.1172	9.0134	8.9407	8.8867	8.8452	8.8123	8.7855	8.7633	8.7447
4	7.7086	6.9443	6.5914	6.3882	6.2561	6.1631	6.0942	6.0410	5.9988	5.9644	5.9358	5.9117
5	6.6079	5.7861	5.4094	5.1922	5.0503	4.9503	4.8759	4.8183	4.7725	4.7351	4.7040	4.6777
6	5.9874	5.1432	4.7571	4.5337	4.3874	4.2839	4.2067	4.1468	4.0990	4.0600	4.0274	3.9999
7	5.5915	4.7374	4.3468	4.1203	3.9715	3.8660	3.7871	3.7257	3.6767	3.6365	3.6030	3.5747
8	5.3176	4.4590	4.0662	3.8379	3.6875	3.5806	3.5005	3.4381	3.3881	3.3472	3.3129	3.2839
9	5.1174	4.2565	3.8625	3.6331	3.4817	3.3738	3.2927	3.2296	3.1789	3.1373	3.1025	3.0729
10	4.9646	4.1028	3.7083	3.4780	3.3258	3.2172	3.1355	3.0717	3.0204	2.9782	2.9430	2.9130
11	4.8443	3.9823	3.5874	3.3567	3.2039	3.0946	3.0123	2.9480	2.8962	2.8536	2.8179	2.7876
12	4.7472	3.8853	3.4903	3.2592	3.1059	2.9961	2.9134	2.8486	2.7964	2.7534	2.7173	2.6866
13	4.6672	3.8056	3.4105	3.1791	3.0254	2.9153	2.8321	2.7669	2.7144	2.6710	2.6346	2.6037
14	4.6001	3.7389	3.3439	3.1122	2.9582	2.8477	2.7642	2.6987	2.6458	2.6022	2.5655	2.5342
15	4.5431	3.6823	3.2874	3.0556	2.9013	2.7905	2.7066	2.6408	2.5876	2.5437	2.5068	2.4753
16	4.4940	3.6337	3.2389	3.0069	2.8524	2.7413	2.6572	2.5911	2.5377	2.4935	2.4564	2.4247
17	4.4513	3.5915	3.1968	2.9647	2.8100	2.6987	2.6143	2.5480	2.4943	2.4499	2.4126	2.3807
18	4.4139	3.5546	3.1599	2.9277	2.7729	2.6613	2.5767	2.5102	2.4563	2.4117	2.3742	2.3421
19	4.3808	3.5219	3.1274	2.8951	2.7401	2.6283	2.5435	2.4768	2.4227	2.3779	2.3402	2.3080
20	4.3513	3.4928	3.0984	2.8661	2.7109	2.5990	2.5140	2.4471	2.3928	2.3479	2.3100	2.2776
21	4.3248	3.4668	3.0725	2.8401	2.6848	2.5727	2.4876	2.4205	2.3661	2.3210	2.2829	2.2504
22	4.3009	3.4434	3.0491	2.8167	2.6613	2.5491	2.4638	2.3965	2.3419	2.2967	2.2585	2.2258
23	4.2793	3.4221	3.0280	2.7955	2.6400	2.5277	2.4422	2.3748	2.3201	2.2747	2.2364	2.2036
24	4.2597	3.4028	3.0088	2.7763	2.6207	2.5082	2.4226	2.3551	2.3002	2.2547	2.2163	2.1834
25	4.2417	3.3852	2.9912	2.7587	2.6030	2.4904	2.4047	2.3371	2.2821	2.2365	2.1979	2.1649
26	4.2252	3.3690	2.9752	2.7426	2.5868	2.4741	2.3883	2.3205	2.2655	2.2197	2.1811	2.1479
27	4.2100	3.3541	2.9603	2.7278	2.5719	2.4591	2.3732	2.3053	2.2501	2.2043	2.1655	2.1323
28	4.1960	3.3404	2.9467	2.7141	2.5581	2.4453	2.3593	2.2913	2.2360	2.1900	2.1512	2.1179
29	4.1830	3.3277	2.9340	2.7014	2.5454	2.4324	2.3463	2.2782	2.2229	2.1768	2.1379	2.1045
30	4.1709	3.3158	2.9223	2.6896	2.5336	2.4205	2.3343	2.2662	2.2107	2.1646	2.1256	2.0921
40	4.0847	3.2317	2.8387	2.6060	2.4495	2.3359	2.2490	2.1802	2.1240	2.0773	2.0376	2.0035
60	4.0012	3.1504	2.7581	2.5252	2.3683	2.2541	2.1665	2.0970	2.0401	1.9926	1.9522	1.9174
∞	3.8508	3.0047	2.6138	2.3808	2.2231	2.1076	2.0187	1.9476	1.8892	1.8402	1.7982	1.7618



 $f_{0.05}(v_{\rm i}, v_{\rm 2})$

						ν	, 1					
ν_2	14	16	18	20	22	24	26	28	30	40	60	∞
1	245.36	246.47	247.32	248.02	248.58	249.05	249.45	249.80	250.10	251.14	252.20	254.19
2	19.424	19.433	19.440	19.446	19.450	19.454	19.457	19.460	19.463	19.471	19.479	19.495
3	8.7149	8.6923	8.6745	8.6602	8.6484	8.6385	8.6301	8.6229	8.6166	8.5944	8.5720	8.5292
4	5.8733	5.8441	5.8211	5.8025	5.7872	5.7744	5.7635	5.7541	5.7459	5.7170	5.6878	5.6317
5	4.6358	4.6038	4.5785	4.5581	4.5413	4.5272	4.5151	4.5048	4.4957	4.4638	4.4314	4.3690
6	3.9559	3.9223	3.8957	3.8742	3.8564	3.8414	3.8287	3.8177	3.8082	3.7743	3.7398	3.6732
7	3.5292	3.4944	3.4669	3.4445	3.4260	3.4105	3.3972	3.3858	3.3758	3.3404	3.3043	3.2343
8	3.2374	3.2016	3.1733	3.1503	3.1313	3.1152	3.1015	3.0897	3.0794	3.0428	3.0053	2.9324
9	3.0255	2.9890	2.9600	2.9365	2.9169	2.9005	2.8864	2.8743	2.8637	2.8259	2.7872	2.7116
10	2.8647	2.8276	2.7980	2.7740	2.7541	2.7373	2.7229	2.7104	2.6996	2.6609	2.6211	2.5430
11	2.7386	2.7009	2.6709	2.6464	2.6261	2.6090	2.5943	2.5816	2.5705	2.5309	2.4901	2.4098
12	2.6371	2.5989	2.5684	2.5436	2.5229	2.5055	2.4905	2.4776	2.4663	2.4259	2.3842	2.3017
13	2.5536	2.5149	2.4841	2.4589	2.4379	2.4202	2.4050	2.3919	2.3803	2.3392	2.2966	2.2121
14	2.4837	2.4446	2.4134	2.3879	2.3667	2.3487	2.3333	2.3199	2.3082	2.2663	2.2229	2.1365
15	2.4244	2.3849	2.3533	2.3275	2.3060	2.2878	2.2722	2.2587	2.2468	2.2043	2.1601	2.0718
16	2.3733	2.3335	2.3016	2.2756	2.2538	2.2354	2.2196	2.2059	2.1938	2.1507	2.1058	2.0157
17	2.3290	2.2888	2.2567	2.2304	2.2084	2.1898	2.1738	2.1599	2.1477	2.1040	2.0584	1.9666
18	2.2900	2.2496	2.2172	2.1906	2.1685	2.1497	2.1335	2.1195	2.1071	2.0629	2.0166	1.9232
19		l									ì	1.8845
20	2.2250	2.1840	2.1511	2.1242	2.1016	2.0825	2.0660	2.0517	2.0391	1.9938	1.9464	1.8497
21	2.1975	2.1563	2.1232	2.0960	2.0733	2.0540	2.0374	2.0229	2.0102	1.9645	1.9165	1.8184
22	2.1727	2.1313	2.0980	2.0707	2.0478	2.0283	2.0116	1.9970	1.9842	1.9380	1.8894	1.7899
23	2.1502	2.1086	2.0751	2.0476	2.0246	2.0050	1.9881	1.9734	1.9605	1.9139	1.8648	1.7639
24	2.1298	2.0880	2.0543	2.0267	2.0035	1.9838	1.9668	1.9520	1.9390	1.8920	1.8424	1.7401
25	2.1111	2.0691	2.0353	2.0075	1.9842	1.9643	1.9472	1.9323	1.9192	1.8718	1.8217	1.7181
26	Į.										1	1.6978
27	1										1	1.6790
28		l	1.9868	l		1		ı	ĺ			
29	4		1.9730	ł		l						
30	ł	l '	1.9601	l .							1	
40	1.9476	1.9038	1.8682	1.8389	1.8141	1.7929	1.7746	1.7586	1.7444	1.6928	1.6373	1.5175
60			1.7784		l							
∞	1.7017	1.6536	1.6142	1.5811	1.5528	1.5282	1.5067	1.4876	1.4706	1.4063	1.3318	1.1097



 $f_{0.025}(v_1, v_2)$

				***************************************		. 1	' ₁					
v_2	1	2	3	4	5	6	7	8	9	10	11	12
1	647.79	799.48	864.15	899.60	921.83	937.11	948.20	956.64	963.28	968.63	973.03	976.72
2	38.506	39.000	39.166	39.248	39.298	39.331	39.356	39.373	39.387	39.398	39.407	39.415
3	17.443	16.044	15.439	15.101	14.885	14.735	14.624	14.540	14.473	14.419	14.374	14.337
4	12.218	10.649	9.9792	9.6045	9.3645	9.1973	9.0741	8.9796	8.9046	8.8439	8.7936	8.7512
5	10.007	8.4336	7.7636	7.3879	7.1464	6.9777	6.8530	6.7572	6.6810	6.6192	6.5678	6.5245
6	8.8131	7.2599	6.5988	6.2271	5.9875	5.8197	5.6955	5.5996	5.5234	5.4613	5.4098	5.3662
7	8.0727	6.5415	5.8898	5.5226	5.2852	5.1186	4.9949	4.8993	4.8232	4.7611	4.7095	4.6658
8	7.5709	6.0595	5.4160	5.0526	4.8173	4.6517	4.5285	4.4333	4.3572	4.2951	4.2434	4.1997
9	7.2093	5.7147	5.0781	4.7181	4.4844	4.3197	4.1970	4.1020	4.0260	3.9639	3.9121	3.8682
10	6.9367	5.4564	4.8256	4.4683	4.2361	4.0721	3.9498	3.8549	3.7790	3.7168	3.6649	3.6210
11	6.7241	5.2559	4.6300	4.2751	4.0440	3.8806	3.7586	3.6638	3.5879	3.5257	3.4737	3.4296
12	6.5538	5.0959	4.4742	4.1212	3.8911	3.7283	3.6065	3.5118	3.4358	3.3735	3.3215	3.2773
13	6.4143	4.9653	4.3472	3.9959	3.7667	3.6043	3.4827	3.3880	3.3120	3.2497	3.1975	3.1532
14	6.2979	4.8567	4.2417	3.8919	3.6634	3.5014	3.3799	3.2853	3.2093	3.1469	3.0946	3.0502
15	6.1995	4.7650	4.1528	3.8043	3.5764	3.4147	3.2934	3.1987	3.1227	3.0602	3.0078	2.9633
16	6.1151	4.6867	4.0768	3.7294	3.5021	3.3406	3.2194	3.1248	3.0488	2.9862	2.9337	2.8891
17	6.0420	4.6189	4.0112	3.6648	3.4379	3.2767	3.1556	3.0610	2.9849	2.9222	2.8696	2.8249
18	5.9781	4.5597	3.9539	3.6083	3.3820	3.2209	3.0999	3.0053	2.9291	2.8664	2.8137	2.7689
19	5.9216	4.5075	3.9034	3.5587	3.3327	3.1718	3.0509	2.9563	2.8801	2.8172	2.7645	2.7196
20	5.8715	4.4612	3.8587	3.5147	3.2891	3.1283	3.0074	2.9128	2.8365	2.7737	2.7209	2.6758
21	5.8266	4.4199	3.8188	3.4754	3.2501	3.0895	2.9686	2.8740	2.7977	2.7348	2.6819	2.6368
22	5.7863	4.3828	3.7829	3.4401	3.2151	3.0546	2.9338	2.8392	2.7628	2.6998	2.6469	2.6017
23	5.7498	4.3492	3.7505	3.4083	3.1835	3.0232	2.9023	2.8077	2.7313	2.6682	2.6152	2.5699
24	5.7166	4.3187	3.7211	3.3794	3.1548	2.9946	2.8738	2.7791	2.7027	2.6396	2.5865	2.5411
25	5.6864	4.2909	3.6943	3.3530	3.1287	2.9685	2.8478	2.7531	2.6766	2.6135	2.5603	2.5149
26	5.6586	4.2655	3.6697	3.3289	3.1048	2.9447	2.8240	2.7293	2.6528	2.5896	2.5363	2.4909
27	5.6331	4.2421	3.6472	3.3067	3.0828	2.9228	2.8021	2.7074	2.6309	2.5676	2.5143	2.4688
28	5.6096	4.2205	3.6264	3.2863	3.0626	2.9027	2.7820	2.6872	2.6106	2.5473	2.4940	2.4484
29	5.5878	4.2006	3.6072	3.2674	3.0438	2.8840	2.7633	2.6686	2.5919	2.5286	2.4752	2.4295
30	5.5675	4.1821	3.5893	3.2499	3.0265	2.8667	2.7460	2.6513	2.5746	2.5112	2.4578	2.4120
40	5.4239	4.0510	3.4633	3.1261	2.9037	2.7444	2.6238	2.5289	2.4519	2.3882	2.3343	2.2882
60	5.2856	3.9253	3.3425	3.0077	2.7863	2.6274	2.5068	2.4117	2.3344	2.2702	2.2159	2.1692
∞	5.0391	3.7025	3.1292	2.7986	2.5792	2.4208	2.3002	2.2045	2.1264	2.0611	2.0056	1.9577



 $f_{0.025}(v_1, v_2)$

						ı	· '1					
v_2	14	16	18	20	22	24	26	28	30	40	60	∞
1	982.55	986.91	990.35	993.08	995.35	997.27	998.84	1000.2	1001.4	1005.6	1009.8	1017.8
2	39.427	39.436	39.442	39.448	39.452	39.457	39.459	39.462	39.465	39.473	39.481	39.497
3	14.277	14.232	14.196	14.167	14.144	14.124	14.107	14.093	14.081	14.036	13.992	13.908
4	8.6837	8.6326	8.5923	8.5599	8.5332	8.5108	8.4918	8.4755	8.4613	8.4111	8.3604	8.2636
5	6.4556	6.4032	6.3619	6.3285	6.3011	6.2780	6.2585	6.2416	6.2269	6.1751	6.1225	6.0218
6	5.2968	5.2439	5.2021	5.1684	5.1406	5.1172	5.0973	5.0802	5.0652	5.0125	4.9589	4.8558
7	4.5961	4.5428	4.5008	4.4668	4.4386	4.4150	4.3949	4.3775	4.3624	4.3089	4.2544	4.1492
8	4.1297	4.0761	4.0338	3.9994	3.9711	3.9472	3.9269	3.9093	3.8940	3.8398	3.7844	3.6772
9	3.7980	3.7441	3.7015	3.6669	3.6383	3.6142	3.5936	3.5759	3.5604	3.5055	3.4493	3.3400
10	3.5504	3.4963	3.4534	3.4185	3.3897	3.3654	3.3446	3.3267	3.3110	3.2554	3.1984	3.0871
11	3.3588	3.3044	3.2612	3.2261	3.1970	3.1725	3.1516	3.1334	3.1176	3.0613	3.0035	2.8902
12	3.2062	3.1515	3.1081	3.0728	3.0435	3.0187	2.9976	2.9793	2.9633	2.9063	2.8478	2.7325
13	3.0819	3.0269	2.9832	2.9477	2.9181	2.8932	2.8719	2.8534	2.8373	2.7797	2.7204	2.6032
14	2.9786	2.9234	2.8795	2.8437	2.8139	2.7888	2.7673	2.7487	2.7324	2.6742	2.6142	2.4951
15	2.8915	2.8360	2.7919	2.7559	2.7260	2.7006	2.6790	2.6602	2.6437	2.5850	2.5242	2.4034
16	2.8170	2.7614	2.7170	2.6808	2.6507	2.6252	2.6033	2.5844	2.5678	2.5085	2.4471	2.3245
17	2.7526	2.6968	2.6522	2.6158	2.5855	2.5598	2.5378	2.5187	2.5020	2.4422	2.3801	2.2558
18	2.6964	2.6403	2.5956	2.5590	2.5285	2.5027	2.4805	2.4613	2.4445	2.3842	2.3214	2.1954
19	2.6469	2.5907	2.5457	2.5089	2.4783	2.4523	2.4300	2.4107	2.3937	2.3329	2.2696	2.1419
20	2.6030	2.5465	2.5014	2.4645	2.4337	2.4076	2.3851	2.3657	2.3486	2.2873	2.2234	2.0941
21	2.5638	2.5071	2.4618	2.4247	2.3938	2.3675	2.3450	2.3254	2.3082	2.2465	2.1819	2.0511
22	2.5285	2.4717	2.4262	2.3890	2.3579	2.3315	2.3088	2.2891	2.2718	2.2097	2.1446	2.0122
23	2.4966	2.4396	2.3940	2.3566	2.3254	2.2989	2.2761	2.2563	2.2389	2.1763	2.1107	1.9769
24			2.3648				l				ł	
25	2.4413	2.3840	2.3381	2.3005	2.2690	2.2422	2.2192	2.1992	2.1816	2.1183	2.0516	1.9149
26			2.3137				l					
27 -			2.2912				l					
28	2.3743	2.3167	2.2704	2.2324	2.2006	2.1735	2.1502	2.1299	2.1121	2.0477	1.9797	1.8388
29			2.2512					1				
30			2.2334					1				
40			2.1068			İ	l .	i				
60			1.9846				l					!
∞	1.8788	1.8162	1.7651	1.7223	1.6859	1.6544	1.6269	1.6025	1.5808	1.4993	1.4058	1.1320



 $f_{0.01}(v_1, v_2)$

	日田及		*****			ι	' ₁					
v_2	1	2	3	4	5	6	7	8	9	10	11	12
1	4052.2	4999.3	5403.5	5624.3	5764.0	5859.0	5928.3	5981.0	6022.4	6055.9	6083.4	6106.7
2	98.502	99.000	99.164	99.251	99.302	99.331	99.357	99.375	99.390	99.397	99.408	99.419
3	34.116	30.816	29.457	28.710	28.237	27.911	27.671	27.489	27.345	27.228	27.132	27.052
4	21.198	18.000	16.694	15.977	15.522	15.207	14.976	14.799	14.659	14.546	14.452	14.374
5	16.258	13.274	12.060	11.392	10.967	10.672	10.456	10.289	10.158	10.051	9.9626	9.8883
6	13.745	10.925	9.7796	9.1484	8.7459	8.4660	8.2600	8.1017	7.9760	7.8742	7.7896	7.7183
7	12.246	9.5465	8.4513	7.8467	7.4604	7.1914	6.9929	6.8401	6.7188	6.6201	6.5381	6.4691
8	11.259	8.6491	7.5910	7.0061	6.6318	6.3707	6.1776	6.0288	5.9106	5.8143	5.7343	5.6667
9	10.562	8.0215	6.9920	6.4221	6.0569	5.8018	5.6128	5.4671	5.3511	5.2565	5.1779	5.1115
10	10.044	7.5595	6.5523	5.9944	5.6364	5.3858	5.2001	5.0567	4.9424	4.8491	4.7716	4.7058
11	9.6461	7.2057	6.2167	5.6683	5.3160	5.0692	4.8860	4.7445	4.6315	4.5393	4.4624	4.3974
12	9.3303	6.9266	5.9525	5.4119	5.0644	4.8205	4.6395	4.4994	4.3875	4.2961	4.2198	4.1553
13 -	9.0738	6.7009	5.7394	5.2053	4.8616	4.6203	4.4410	4.3021	4.1911	4.1003	4.0245	3.9603
14	8.8617	6.5149	5.5639	5.0354	4.6950	4.4558	4.2779	4.1400	4.0297	3.9394	3.8640	3.8002
15	8.6832	6.3588	5.4170	4.8932	4.5556	4.3183	4.1416	4.0044	3.8948	3.8049	3.7299	3.6662
16	8.5309	6.2263	5.2922	4.7726	4.4374	4.2016	4.0259	3.8896	3.7804	3.6909	3.6162	3.5527
17	8.3998	6.1121	5.1850	4.6689	4.3360	4.1015	3.9267	3.7909	3.6823	3.5931	3.5185	3.4552
18	8.2855	6.0129	5.0919	4.5790	4.2479	4.0146	3.8406	3.7054	3.5971	3.5081	3.4338	3.3706
19	8.1850	5.9259	5.0103	4.5002	4.1708	3.9386	3.7653	3.6305	3.5225	3.4338	3.3596	3.2965
20	8.0960	5.8490	4.9382	4.4307	4.1027	3.8714	3.6987	3.5644	3.4567	3.3682	3.2941	3.2311
21	8.0166	5.7804	4.8740	4.3688	4.0421	3.8117	3.6396	3.5056	3.3982	3.3098	3.2359	3.1729
22	7.9453	5.7190	4.8166	4.3134	3.9880	3.7583	3.5866	3.4530	3.3458	3.2576	3.1837	3.1209
23	7.8811	5.6637	4.7648	4.2635	3.9392	3.7102	3.5390	3.4057	3.2986	3.2106	3.1368	3.0740
24	7.8229	5.6136	4.7181	4.2185	3.8951	3.6667	3.4959	3.3629	3.2560	3.1681	3.0944	3.0316
25										1	3.0558	
26	7.7213	5.5263	4.6365	4.1400	3.8183	3.5911	3.4210	3.2884	3.1818	3.0941	3.0205	2.9578
27	7.6767	5.4881	4.6009	4.1056	3.7847	3.5580	3.3882	3.2558	3.1494	3.0618	2.9882	2.9256
28											2.9585	
29	i e	ĺ									2.9311	
30			1			Į.	Ì				2.9057	
40					1	l					2.7273	
60						l					2.5587	
∞	6.6603	4.6264	3.8012	3.3380	3.0356	2.8200	2.6572	2.5290	2.4250	2.3386	2.2655	2.2025



 $f_{0.01}(v_1, v_2)$

						. 1	, 1					
v_2	14	16	18	20	22	24	26	28	30	40	60	8
1	6143.0	6170.0	6191.4	6208.7	6223.1	6234.3	6244.5	6252.9	6260.4	6286.4	6313.0	6362.8
2	99.426	99.437	99.444	99.448	99.455	99.455	99.462	99.462	99.466	99.477	99.484	99.499
3	26.924	26.826	26.751	26.690	26.639	26.597	26.562	26.531	26.504	26.411	26.316	26.137
4	14.249	14.154	14.079	14.019	13.970	13.929	13.894	13.864	13.838	13.745	13.652	13.475
5	9.7700	9.6802	9.6095	9.5527	9.5058	9.4665	9.4331	9.4044	9.3794	9.2912	9.2020	9.0315
6	7.6050	7.5186	7.4506	7.3958	7.3506	7.3128	7.2805	7.2528	7.2286	7.1432	7.0568	6.8908
7	6.3590	6.2751	6.2089	6.1555	6.1113	6.0743	6.0428	6.0156	5.9920	5.9084	5.8236	5.6601
8	5.5588	5.4765	5.4116	5.3591	5.3157	5.2793	5.2482	5.2214	5.1981	5.1156	5.0316	4.8693
9	5.0052	4.9240	4.8599	4.8080	4.7651	4.7290	4.6982	4.6717	4.6486	4.5667	4.4831	4.3211
10	4.6008	4.5204	4.4569	4.4054	4.3628	4.3269	4.2963	4.2700	4.2469	4.1653	4.0819	3.9196
11	4.2933	4.2135	4.1503	4.0990	4.0566	4.0209	3.9904	3.9641	3.9411	3.8596	3.7761	3.6131
12	4.0517	3.9724	3.9095	3.8584	3.8161	3.7805	3.7501	3.7238	3.7008	3.6192	3.5355	3.3716
13	3.8573	3.7783	3.7156	3.6646	3.6223	3.5868	3.5563	3.5300	3.5070	3.4253	3.3413	3.1763
14	3.6976	3.6187	3.5561	3.5052	3.4630	3.4274	3.3969	3.3706	3.3476	3.2657	3.1813	3.0150
15	3.5639	3.4852	3.4228	3.3719	3.3297	3.2940	3.2636	3.2372	3.2141	3.1319	3.0471	2.8795
16	3.4506	3.3721	3.3096	3.2587	3.2165	3.1808	3.1503	3.1238	3.1007	3.0182	2.9330	2.7641
17	3.3533	3.2748	3.2124	3.1615	3.1192	3.0835	3.0529	3.0264	3.0032	2.9204	2.8348	2.6644
18	3.2689	3.1905	3.1280	3.0771	3.0348	2.9990	2.9683	2.9418	2.9185	2.8354	2.7493	2.5775
19									l			2.5009
20	3.1296	3.0512	2.9887	2.9377	2.8953	2.8594	2.8286	2.8019	2.7785	2.6947	2.6077	2.4329
21	3.0715	2.9931	2.9306	2.8795	2.8370	2.8010	2.7702	2.7434	2.7200	2.6359	2.5484	2.3722
22	3.0195	2.9411	2.8786	2.8274	2.7849	2.7488	2.7179	2.6910	2.6675	2.5831	2.4951	2.3175
23	ł										ļ	2.2680
24											l	2.2229
25									İ		l	2.1818
26										į .	l	2.1440
27										i .	l	2.1092
28								,	!			2.0769
29												2.0471
30									l			2.0192
40	{						Ī					1.8189
60								ĺ	j		l	1.6169
∞	2.0994	2.0180	1.9519	1.8967	1.8500	1.8096	1.7745	1.7435	1.7158	1.6127	1.4953	1.1586



附表七:常態分配下之容差因子 (tolerance factors)

 $\gamma = 0.01$

 $\gamma = 0.05$

		$1-\alpha$		
n	0.9	0.95	0.99	
2	160.193	188.491	242.300	
3	18.930	22.401	29.055	
4	9.398	11.150	14.527	
5	6.612	7.855	10.260	
6	5.337	6.345	8.301	
7	4.613	5.488	7.187	
8	4.147	4.936	6.468	
9	3.822	4.550	5.966	
10	3.582	4.265	5.594	
11	3.397	4.045	5.308	
12	3.250	3.870	5.079	
13	3.130	3.727	4.893	
14	3.029	3.608	4.737	
15	2.945	3.507	4.605	
16	2.872	3.421	4.492	
17	2.808	3.345	4.393	
18	2.753	3.279	4.307	
19	2.703	3.221	4.230	
20	2.659	3.168	4.161	
25	2.494	2.972	3.904	
30	2.385	2.841	3.733	
35	2.306	2.748	3.611	
40	2.247	2.677	3.518	
45	2.200	2.621	3.444	
50	2.162	2.576	3.385	
55	2.130	2.538	3.335	
60	2.103	2.506	3.293	
65	2.080	2.478	3.257	
70	2.060	2.454	3.225	

		$1-\alpha$	
n	0.9	0.95	0.99
2	32.019	37.674	48.430
3	8.380	9.916	12.861
4	5.369	6.370	8.299
5	4.275	5.079	6.634
6	3.712	4.414	5.775
7	3.369	4.007	5.248
8	3.136	3.732	4.891
9	2.967	3.532	4.631
10	2.839	3.379	4.433
11	2.737	3.259	4.277
12	2.655	3.162	4.150
13	2.587	3.081	4.044
14	2.529	3.012	3.955
15	2.480	2.954	3.878
16	2.437	2.903	3.812
17	2.400	2.858	3.754
18	2.366	2.819	3.702
19	2.337	2.784	3.656
20	2.310	2.752	3.615
25	2.208	2.631	3.457
30	2.140	2.549	3.350
35	2.090	2.490	3.272
40	2.052	2.445	3.213
45	2.021	2.408	3.165
50	1.996	2.379	3.126
55	1.976	2.354	3.094
60	1.958	2.333	2.066
65	1.943	2.315	3.042
70	1.929	2.299	3.021



常態分配下之容差因子 (tolerance factors)(續)

 $\gamma = 0.01$

 $\gamma = 0.05$

	,	1-α	
n	0.9	0.95	0.99
75	2.042	2.433	3.297
80	2.026	2.414	3.273
85	2.012	2.397	3.215
90	1.999	2.382	3.130
95	1.987	2.368	3.112
100	1.977	2.355	3.096
150	1.905	2.270	2.983
200	1.865	2.222	2.921
250	1.839	2.191	2.880
300	1.820	2.169	2.850
400	1.794	2.138	2.809
500	1.777	2.117	2.783
600	1.764	2.102	2.763
700	1.755	2.091	2.748
800	1.747	2.082	2.736
900	1.741	2.075	2.726
1000	1.736	2.068	2.718
∞ ,	1.645	1.960	2.576

		$1-\alpha$	
n	0.9	0.95	0.99
75	1.917	2.285	3.002
80	1.907	2.272	2.986
85	1.897	2.261	2.971
90	1.889	2.251	2.958
95	1.881	2.241	2.945
100	1.874	2.233	2.934
150	1.825	2.175	2.859
200	1.798	2.143	2.816
250	1.780	2.121	2.788
300	1.767	2.106	2.767
400	1.749	2.084	2.739
500	1.737	2.070	2.721
600	1.729	2.060	2.707
700	1.722	2.052	2.697
800	1.717	2.046	2.688
900	1.712	2.040	2.682
1000	1.709	2.036	2.676
∞	1.645	1.960	2.576



附表八:W-符號等級檢定之臨界值

 $W_a(n)$

	單尾 α=0.05	單尾 α=0.025	阜尾 α=0.01	單尾 α=0.005
n	雙尾 α=0.10	雙尾 α=0.05	雙尾 α=0.02	雙尾 α=0.01
5	1			
6	2	1		
7	4	2	0	
8	6	. 4	2	0
9	8	6	3	2
10	11	8	5	3
11	14	11	7	5
12	17	14	10	7
13	21	17	13	10
14	26	21	16	13
15	30	25	20	16
16	36	30	24	19
17	41	35	28	23
18	47	40	33	28
19	54	46	38	32
20	60	52	43	37
21	68	59	49	43
22	75	66	56	49
23	83	73	62	55
24	92	81	69	61
25	101	90	77	68
26	110	98	85	76
27	120	107	93	84
28	130	117	102	92
29	141	127	111	100
30	152	137	120	109
31	163	148	130	118
32	.175	159	141	128
33	188	171	151	138
34	201	183	162	149
35	214	195	174	160

來源:F. Wilcoxon and R. A. Wilcox, "Some Rapid Approximate Statistical Procedure", 1964, p28.



附表九:連檢定之*P*值

 $P(R \leq r)$

					r			"
(n_1, n_2)	2	3	4	5	6	7	8	9
(2, 3)	0.200	0.500	0.900	1.000				
(2, 4)	0.133	0.400	0.800	1.000				
(2, 5)	0.095	0.333	0.714	1.000				
(2, 6)	0.071	0.286	0.643	1.000				
(2,7)	0.056	0.250	0.583	1.000				
(2, 8)	0.044	0.222	0.533	1.000			,	
(2,9)	0.036	0.200	0.491	1.000				
(2, 10)	0.030	0.182	0.455	1.000				
(3,3)	0.100	0.300	0.700	0.900	1.000			
(3, 4)	0.057	0.200	0.543	0.800	0.971	1.000		
(3, 5)	0.036	0.143	0.429	0.714	0.929	1.000		
(3, 6)	0.024	0.107	0.345	0.643	0.881	1.000		
(3, 7)	0.017	0.083	0.283	0.583	0.833	1.000		
(3, 8)	0.012	0.067	0.236	0.533	0.788	1.000		
(3, 9)	0.009	0.055	0.200	0.491	0.745	1.000		
(3, 10)	0.007	0.045	0.171	0.455	0.706	1.000		
(4, 4)	0.029	0.114	0.371	0.629	0.886	0.971	1.000	
(4, 5)	0.016	0.071	0.262	0.500	0.786	0.929	0.992	1.000
(4, 6)	0.010	0.048	0.190	0.405	0.690	0.881	0.976	1.000
(4, 7)	0.006	0.033	0.142	0.333	0.606	0.833	0.954	1.000
(4, 8)	0.004	0.024	0.109	0.279	0.533	0.788	0.929	1.000
(4, 9)	0.003	0.018	0.085	0.236	0.471	0.745	0.902	1.000
(4, 10)	0.002	0.014	0.068	0.203	0.419	0.706	0.874	1.000
(5, 5)	0.008	0.040	0.167	0.357	0.643	0.833	0.960	0.992
(5, 6)	0.004	0.024	0.110	0.262	0.522	0.738	0.911	0.976
(5, 7)	0.003	0.015	0.076	0.197	0.424	0.652	0.854	0.955
(5, 8)	0.002	0.010	0.054	0.152	0.347	0.576	0.793	0.929
(5, 9)	0.001	0.007	0.039	0.119	0.287	0.510	0.734	0.902
(5, 10)	0.001	0.005	0.029	0.095	0.239	0.455	0.678	0.874
(6, 6)	0.002	0.013	0.067	0.175	0.392	0.608	0.825	0.933
(6, 7)	0.001	0.008	0.043	0.121	0.296	0.500	0.733	0.879
(6, 8)	0.001	0.005	0.028	0.086	0.226	0.413	0.646	0.821
(6, 9)	0.000	0.003	0.019	0.063	0.175	0.343	0.566	0.762
(6, 10)	0.000	0.002	0.013	0.047	0.137	0.288	0.497	0.706
(7, 7)	0.001	0.004	0.025	0.078	0.209	0.383	0.617	0.791
(7, 8)	0.000	0.002	0.015	0.051	0.149	0.296	0.514	0.704
(7, 9)	0.000	0.001	0.010	0.035	0.108	0.231	0.427	0.622
(7, 10)	0.000	0.001	0.006	0.024	0.080	0.182	0.355	0.549



連檢定之 Р值(續)

 $P(R \leq r)$

					r			
(n_1, n_2)	10	11	12	13	14	15	16	17
(2, 3)								
(2, 4)								
(2, 5)								
(2, 6)								
(2, 7)								
(2, 8)								
(2, 9)						·		
(2, 10)								
(3, 3)								
(3, 4)								
(3, 5)								
(3, 6)								
(3, 7)								
(3, 8)								
(3, 9)								
(3, 10)								
(4, 4)								
(4, 5)								
(4, 6)								
(4, 7)								
(4, 8)								
(4, 9)								
(4, 10)								
(5,5)	1.000							
(5, 6)	0.998	1.000						
(5,7)	0.992	1.000						
(5, 8)	0.984	1.000						
(5, 9)	0.972	1.000						
(5, 10)	0.958	1.000						
(6, 6)	0.987	0.998	1.000					
(6, 7)	0.966	0.992	0.999	1.000				
(6, 8)	0.937	0.984	0.998	1.000				
(6, 9)	0.902	0.972	0.994	1.000				
(6, 10)	0.864	0.958	0.990	1.000				
(7, 7)	0.922	0.975	0.996	0.999	1.000)		
(7, 8)	0.867	0.949	0.988	0.998	1.000	1.000		
(7, 9)	0.806	0.916	0.975	0.994	0.999	1.000		
(7, 10)	0.743	0.879	0.957	0.990	0.998	1.000		

連檢定之 P 值(續)

 $P(R \le r)$

		r											
(n_1, n_2)	2	3	4	5	6	7	8	9	10				
(8, 8)	0.000	0.001	0.009	0.032	0.100	0.214	0.405	0.595	0.786				
(8, 9)	0.000	0.001	0.005	0.020	0.069	0.157	0.319	0.500	0.702				
(8, 10)	0.000	0.000	0.003	0.013	0.048	0.117	0.251	0.419	0.621				
(9, 9)	0.000	0.000	0.003	0.012	0.044	0.109	0.238	0.399	0.601				
(9, 10)	0.000	0.000	0.002	0.008	0.029	0.077	0.179	0.319	0.510				
(10, 10)	0.000	0.000	0.001	0.004	0.019	0.051	0.128	0.242	0.414				

		r									
(n_1, n_2)	11	12	13	14	15	16	17	18	19	20	
(8, 8)	0.900	0.968	0.991	0.999	1.000	1.000					
(8, 9)	0.843	0.939	0.980	0.996	0.999	1.000	1.000				
(8, 10)	0.782	0.903	0.964	0.990	0.998	1.000	1.000				
(9, 9)	0.762	0.891	0.956	0.988	0.997	1.000	1.000	1.000			
(9, 10)	0.681	0.834	0.923	0.974	0.992	0.999	1.000	1.000	1.000		
(10, 10)	0.586	0.758	0.872	0.949	0.981	0.996	0.999	1.000	1.000	1.000	

來源:C. Eisenhart and F. Swed, "Tables for Testing Randomness of Grouping in a Sequence of Alternatives," Ann. Math. Stat., Vol. 14, 1943.