

# Exact distribution of Bartels Statistic

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## 1 Exact null distribution of Bartels Statistic

Bartels Rank Test (of randomness) is the nonparametric version of von Neumann ratio test. Let  $R_i = \text{rank}(X_i)$ ,  $i = 1, \dots, n$ , denote the rank of the  $i$ -th observation from the sample. Then the test statistic is given by

$$RVN = \frac{\sum_{i=1}^{n-1} (R_i - R_{i+1})^2}{\sum_{i=1}^n (R_i - (n+1)/2)^2}. \quad (1)$$

Note that if there are no ties, the denominator is equal to  $n(n^2 - 1)/12$  and the statistic  $RVN$  in (1) is equivalent to the numerator

$$NM = \sum_{i=1}^{n-1} (R_i - R_{i+1})^2.$$

The exact distribution of  $NM$ ,  $4 \leq n \leq 10$ , under the null hypothesis (null distribution) is given in [1]. Here we present in Table 1 the exact null distribution (left-tail probabilities) of Bartels Randomness statistic for samples of size  $n = 5, \dots, 17$ . Further details can be found in [2, 3, 4]

Table 1: Exact null distribution of MN, for  $n = 5, \dots, 17$

$n$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$
5	4	0.016667	13	0.200000	20	0.516667	25	0.783333	33	0.966667
	7	0.050000	15	0.366667	21	0.550000	26	0.833333	35	1.000000
	10	0.133333	18	0.400000	22	0.616667	27	0.866667		
	12	0.166667	19	0.466667	23	0.683333	30	0.933333		
6	5	0.002778	22	0.166667	32	0.444444	43	0.758333	53	0.925000
	8	0.008333	23	0.200000	34	0.477778	44	0.775000	54	0.930556
	11	0.025000	24	0.216667	35	0.533333	45	0.800000	55	0.963889
	13	0.030556	25	0.219444	36	0.538889	46	0.827778	56	0.969444
	14	0.047222	26	0.252778	37	0.566667	47	0.844444	59	0.980556
	16	0.075000	27	0.280556	38	0.588889	48	0.850000	60	0.986111
	17	0.080556	28	0.302778	39	0.622222	49	0.863889	62	0.991667
	19	0.130556	29	0.350000	40	0.661111	50	0.886111	63	0.997222

Table 1: Exact null distribution of MN, for  $n = 5, \dots, 17$  (continued)

$n$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$
	20	0.136111	30	0.355556	41	0.691667	51	0.902778	65	1.000000
	21	0.161111	31	0.411111	42	0.713889	52	0.913889		
7	6	0.000397	32	0.115476	51	0.409921	70	0.767857	89	0.964683
	9	0.001190	33	0.130556	52	0.439683	71	0.792460	90	0.968254
	12	0.003968	34	0.130952	53	0.456349	72	0.803571	91	0.974603
	14	0.004762	35	0.150000	54	0.467063	73	0.813095	92	0.979365
	15	0.007937	36	0.165476	55	0.493254	74	0.824206	93	0.980159
	17	0.011905	37	0.170238	56	0.510714	75	0.844048	94	0.983333
	18	0.015079	38	0.182540	57	0.531349	76	0.855952	95	0.988889
	20	0.026190	39	0.201587	58	0.542063	77	0.862302	96	0.989683
	21	0.027778	40	0.215873	59	0.573016	78	0.870238	97	0.991270
	22	0.030952	41	0.238095	60	0.587698	79	0.888492	98	0.992857
	23	0.040476	42	0.246032	61	0.600397	80	0.901190	99	0.994444
	24	0.044444	43	0.261111	62	0.624206	81	0.909921	100	0.996032
	25	0.056349	44	0.284524	63	0.640873	82	0.914683	101	0.996825
	26	0.057937	45	0.298810	64	0.661508	83	0.927381	103	0.999206
	27	0.068254	46	0.305952	65	0.689286	84	0.932540	105	1.000000
	28	0.074206	47	0.344841	66	0.701587	85	0.939683		
	29	0.081349	48	0.357540	67	0.730159	86	0.946429		
	30	0.092460	49	0.373413	68	0.746429	87	0.953571		
	31	0.098810	50	0.389286	69	0.756746	88	0.957540		
8	7	0.000050	44	0.072321	74	0.368948	104	0.769097	134	0.971429
	10	0.000149	45	0.081250	75	0.382589	105	0.780109	135	0.975099
	13	0.000546	46	0.085119	76	0.396776	106	0.788046	136	0.979067
	15	0.000645	47	0.090724	77	0.413938	107	0.800496	137	0.981796
	16	0.001141	48	0.097768	78	0.424752	108	0.812103	138	0.982688
	18	0.001637	49	0.104911	79	0.440724	109	0.822123	139	0.984722
	19	0.002282	50	0.109673	80	0.452034	110	0.829266	140	0.986508
	21	0.003919	51	0.120585	81	0.470437	111	0.841419	141	0.988690
	22	0.004415	52	0.126637	82	0.480952	112	0.848562	142	0.989484
	23	0.004861	53	0.137649	83	0.494444	113	0.856994	143	0.991567
	24	0.007341	54	0.142312	84	0.506746	114	0.864435	144	0.992163
	25	0.007937	55	0.151935	85	0.520833	115	0.873165	145	0.993304
	26	0.009524	56	0.164831	86	0.529266	116	0.880506	146	0.994296
	27	0.011111	57	0.174603	87	0.545982	117	0.890030	147	0.994841
	28	0.012599	58	0.181052	88	0.562351	118	0.892609	148	0.995734
	29	0.016220	59	0.190079	89	0.579018	119	0.900347	149	0.996974
	30	0.017113	60	0.201389	90	0.590129	120	0.908383	150	0.997073
	31	0.020635	61	0.214831	91	0.604911	121	0.914782	151	0.998065
	32	0.022123	62	0.220387	92	0.620288	122	0.919742	152	0.998363
	33	0.026389	63	0.235169	93	0.635714	123	0.926389	153	0.998859
	34	0.029563	64	0.244792	94	0.644544	124	0.931647	154	0.998958

Table 1: Exact null distribution of MN, for  $n = 5, \dots, 17$  (continued)

$n$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$
	35	0.030655	65	0.255308	95	0.662351	125	0.938145	155	0.999256
	36	0.035417	66	0.267212	96	0.673661	126	0.941419	156	0.999554
	37	0.040724	67	0.277579	97	0.684921	127	0.946974	157	0.999653
	38	0.041915	68	0.288591	98	0.693948	128	0.951935	158	0.999752
	39	0.048065	69	0.306647	99	0.708036	129	0.955804	159	0.999950
	40	0.052927	70	0.311706	100	0.719841	130	0.958284	161	1.000000
	41	0.057887	71	0.329911	101	0.733978	131	0.963492		
	42	0.062351	72	0.346478	102	0.741022	132	0.966468		
	43	0.066964	73	0.358929	103	0.755208	133	0.969246		
9	8	0.000006	59	0.048622	103	0.335086	147	0.763988	191	0.977712
	11	0.000017	60	0.051549	104	0.344494	148	0.772547	192	0.979266
	14	0.000066	61	0.055782	105	0.356222	149	0.781300	193	0.981272
	16	0.000077	62	0.059590	106	0.364087	150	0.787340	194	0.982352
	17	0.000143	63	0.062103	107	0.373666	151	0.795839	195	0.983918
	19	0.000198	64	0.066358	108	0.382843	152	0.803913	196	0.985185
	20	0.000303	65	0.071340	109	0.395530	153	0.812555	197	0.986717
	22	0.000513	66	0.074096	110	0.403208	154	0.817532	198	0.987450
	23	0.000601	67	0.079056	111	0.412952	155	0.825590	199	0.988564
	24	0.000656	68	0.082633	112	0.423391	156	0.832727	200	0.989572
	25	0.001020	69	0.087494	113	0.435306	157	0.840906	201	0.990873
	26	0.001124	70	0.092593	114	0.442543	158	0.845905	202	0.991490
	27	0.001312	71	0.096065	115	0.454029	159	0.852420	203	0.992372
	28	0.001764	72	0.100959	116	0.463784	160	0.858802	204	0.993215
	29	0.001951	73	0.108201	117	0.475876	161	0.865063	205	0.994097
	30	0.002541	74	0.111800	118	0.485284	162	0.869781	206	0.994659
	31	0.002805	75	0.118138	119	0.495403	163	0.876240	207	0.995420
	32	0.003301	76	0.123760	120	0.506476	164	0.881388	208	0.995839
	33	0.004018	77	0.130583	121	0.519042	165	0.888288	209	0.996500
	34	0.004525	78	0.135714	122	0.526361	166	0.891705	210	0.996825
	35	0.005473	79	0.141402	123	0.536767	167	0.897051	211	0.997222
	36	0.005787	80	0.147751	124	0.547332	168	0.902205	212	0.997564
	37	0.006944	81	0.155489	125	0.559336	169	0.907650	213	0.997939
	38	0.007865	82	0.161365	126	0.566799	170	0.911420	214	0.998104
	39	0.008284	83	0.168530	127	0.577425	171	0.916049	215	0.998468
	40	0.009640	84	0.174570	128	0.586761	172	0.920552	216	0.998754
	41	0.010940	85	0.184491	129	0.598821	173	0.925623	217	0.998964
	42	0.011905	86	0.190355	130	0.607595	174	0.928819	218	0.999063
	43	0.013547	87	0.196219	131	0.618045	175	0.933383	219	0.999328
	44	0.014694	88	0.204426	132	0.626813	176	0.936932	220	0.999427
	45	0.016424	89	0.213222	133	0.638983	177	0.941011	221	0.999603
	46	0.018204	90	0.219483	134	0.646114	178	0.943943	222	0.999636
	47	0.019505	91	0.227882	135	0.655462	179	0.947250	223	0.999735

Table 1: Exact null distribution of MN, for  $n = 5, \dots, 17$  (continued)

$n$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$
	48	0.021059	92	0.235196	136	0.666397	180	0.950138	224	0.999802
	49	0.023650	93	0.245877	137	0.677431	181	0.953720	225	0.999857
	50	0.025463	94	0.253131	138	0.684843	182	0.955511	226	0.999879
	51	0.027293	95	0.260935	139	0.695492	183	0.958873	227	0.999934
	52	0.029541	96	0.269048	140	0.704448	184	0.962285	229	0.999989
	53	0.032165	97	0.281283	141	0.714600	185	0.965283	231	1.000000
	54	0.034215	98	0.288316	142	0.721996	186	0.966826		
	55	0.036872	99	0.296991	143	0.730186	187	0.969296		
	56	0.039142	100	0.306090	144	0.738509	188	0.971489		
	57	0.043177	101	0.317201	145	0.748804	189	0.973815		
	58	0.045470	102	0.325430	146	0.754674	190	0.975463		
10	9	0.000001	78	0.034316	140	0.313720	202	0.772827	264	0.983356
	12	0.000002	79	0.036462	141	0.321678	203	0.778921	265	0.984700
	15	0.000007	80	0.038019	142	0.328325	204	0.784340	266	0.985506
	17	0.000008	81	0.040493	143	0.336310	205	0.791401	267	0.986459
	18	0.000016	82	0.042536	144	0.342222	206	0.796777	268	0.987305
	20	0.000021	83	0.044782	145	0.351563	207	0.802444	269	0.988307
	21	0.000036	84	0.046642	146	0.358199	208	0.807580	270	0.988940
	23	0.000060	85	0.049333	147	0.365392	209	0.814718	271	0.989726
	24	0.000073	86	0.051723	148	0.372427	210	0.819167	272	0.990322
	25	0.000079	87	0.054271	149	0.381301	211	0.824824	273	0.991205
	26	0.000124	88	0.056429	150	0.387594	212	0.829721	274	0.991835
	27	0.000139	89	0.060098	151	0.395724	213	0.835472	275	0.992455
	28	0.000159	90	0.062383	152	0.402526	214	0.840131	276	0.992908
	29	0.000229	91	0.065158	153	0.411446	215	0.845002	277	0.993602
	30	0.000254	92	0.067943	154	0.419001	216	0.849315	278	0.993991
	31	0.000325	93	0.071149	155	0.426780	217	0.855317	279	0.994452
	32	0.000389	94	0.074109	156	0.433397	218	0.859221	280	0.994883
	33	0.000449	95	0.077528	157	0.442857	219	0.863903	281	0.995452
	34	0.000577	96	0.079954	158	0.449731	220	0.868372	282	0.995772
	35	0.000652	97	0.084073	159	0.457407	221	0.873665	283	0.996163
	36	0.000777	98	0.087349	160	0.464426	222	0.877227	284	0.996473
	37	0.000896	99	0.090612	161	0.474366	223	0.881683	285	0.996887
	38	0.001037	100	0.093805	162	0.480859	224	0.885325	286	0.997151
	39	0.001267	101	0.098489	163	0.488934	225	0.890019	287	0.997428
	40	0.001335	102	0.101723	164	0.496188	226	0.893704	288	0.997625
	41	0.001632	103	0.105993	165	0.505154	227	0.897654	289	0.997954
	42	0.001829	104	0.109400	166	0.512576	228	0.901048	290	0.998102
	43	0.002022	105	0.114262	167	0.520964	229	0.905616	291	0.998348
	44	0.002321	106	0.118337	168	0.527428	230	0.908631	292	0.998496
	45	0.002587	107	0.122644	169	0.537469	231	0.912095	293	0.998683
	46	0.002896	108	0.126420	170	0.544200	232	0.915450	294	0.998805

Table 1: Exact null distribution of MN, for  $n = 5, \dots, 17$  (continued)

$n$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$
	47	0.003331	109	0.132049	171	0.551782	233	0.919457	295	0.998969
	48	0.003583	110	0.136252	172	0.559318	234	0.922176	296	0.999097
	49	0.004063	111	0.140933	173	0.568333	235	0.925336	297	0.999247
	50	0.004548	112	0.144840	174	0.575213	236	0.928095	298	0.999313
	51	0.004987	113	0.151054	175	0.583117	237	0.931618	299	0.999432
	52	0.005370	114	0.155415	176	0.590021	238	0.934196	300	0.999490
	53	0.006010	115	0.160235	177	0.598720	239	0.937050	301	0.999595
	54	0.006551	116	0.165091	178	0.605548	240	0.939478	302	0.999633
	55	0.007169	117	0.170753	179	0.613370	241	0.942752	303	0.999692
	56	0.007744	118	0.175616	180	0.620095	242	0.945000	304	0.999724
	57	0.008478	119	0.181485	181	0.629175	243	0.947414	305	0.999786
	58	0.009167	120	0.185785	182	0.635596	244	0.949644	306	0.999825
	59	0.009982	121	0.193292	183	0.643002	245	0.952487	307	0.999859
	60	0.010618	122	0.198539	184	0.649753	246	0.954443	308	0.999877
	61	0.011722	123	0.203875	185	0.658699	247	0.956676	309	0.999923
	62	0.012544	124	0.209182	186	0.665109	248	0.958694	310	0.999934
	63	0.013606	125	0.216286	187	0.672840	249	0.961166	311	0.999953
	64	0.014296	126	0.221709	188	0.679593	250	0.962845	312	0.999960
	65	0.015704	127	0.228259	189	0.687732	251	0.964723	313	0.999974
	66	0.016835	128	0.233694	190	0.693925	252	0.966368	314	0.999980
	67	0.017785	129	0.241370	191	0.701047	253	0.968528	315	0.999985
	68	0.018994	130	0.247021	192	0.707086	254	0.969988	316	0.999991
	69	0.020389	131	0.253631	193	0.715652	255	0.971626	317	0.999995
	70	0.021580	132	0.259254	194	0.721696	256	0.972989	318	0.999996
	71	0.023286	133	0.267062	195	0.728108	257	0.974807	319	0.999999
	72	0.024207	134	0.273236	196	0.734333	258	0.975959	321	1.000000
	73	0.026035	135	0.279635	197	0.741724	259	0.977369		
	74	0.027762	136	0.285437	198	0.747277	260	0.978546		
	75	0.029035	137	0.294112	199	0.753979	261	0.980076		
	76	0.030641	138	0.299973	200	0.759773	262	0.981098		
	77	0.032849	139	0.307090	201	0.767469	263	0.982324		
11	10	0.000000	100	0.023688	183	0.286200	266	0.766024	349	0.984751
	13	0.000000	101	0.024923	184	0.290720	267	0.770883	350	0.985431
	16	0.000001	102	0.026086	185	0.297015	268	0.775137	351	0.986172
	18	0.000001	103	0.027278	186	0.302182	269	0.780868	352	0.986777
	19	0.000002	104	0.028358	187	0.307787	270	0.785135	353	0.987603
	21	0.000002	105	0.029736	188	0.312565	271	0.789823	354	0.988195
	22	0.000004	106	0.030973	189	0.318809	272	0.793862	355	0.988851
	24	0.000006	107	0.032504	190	0.324316	273	0.799053	356	0.989365
	25	0.000008	108	0.033672	191	0.330239	274	0.803197	357	0.990028
	26	0.000009	109	0.035195	192	0.335162	275	0.807742	358	0.990515
	27	0.000013	110	0.036674	193	0.341455	276	0.811472	359	0.991061

Table 1: Exact null distribution of MN, for  $n = 5, \dots, 17$  (continued)

$n$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$
	28	0.000015	111	0.038266	194	0.347067	277	0.816415	360	0.991493
	29	0.000017	112	0.039644	195	0.353094	278	0.820442	361	0.992085
	30	0.000026	113	0.041399	196	0.357939	279	0.824694	362	0.992468
	31	0.000029	114	0.043044	197	0.364840	280	0.828372	363	0.992912
	32	0.000037	115	0.044868	198	0.370251	281	0.833141	364	0.993268
	33	0.000046	116	0.046296	199	0.376256	282	0.836792	365	0.993751
	34	0.000053	117	0.048345	200	0.381547	283	0.840837	366	0.994100
	35	0.000069	118	0.050089	201	0.388145	284	0.844284	367	0.994490
	36	0.000081	119	0.052084	202	0.393912	285	0.848702	368	0.994780
	37	0.000094	120	0.053819	203	0.400427	286	0.852203	369	0.995172
	38	0.000117	121	0.055782	204	0.405458	287	0.856126	370	0.995450
	39	0.000134	122	0.057868	205	0.412374	288	0.859378	371	0.995769
	40	0.000165	123	0.060093	206	0.418184	289	0.863508	372	0.996003
	41	0.000182	124	0.061780	207	0.424433	290	0.866875	373	0.996338
	42	0.000220	125	0.064378	208	0.429696	291	0.870460	374	0.996553
	43	0.000261	126	0.066547	209	0.436527	292	0.873469	375	0.996807
	44	0.000284	127	0.068887	210	0.442371	293	0.877532	376	0.997006
	45	0.000341	128	0.070949	211	0.448594	294	0.880509	377	0.997255
	46	0.000381	129	0.073539	212	0.454048	295	0.883878	378	0.997421
	47	0.000435	130	0.075985	213	0.461085	296	0.886712	379	0.997638
	48	0.000501	131	0.078675	214	0.466883	297	0.890234	380	0.997787
	49	0.000550	132	0.080808	215	0.473326	298	0.893112	381	0.998000
	50	0.000630	133	0.083725	216	0.478583	299	0.896251	382	0.998138
	51	0.000722	134	0.086348	217	0.485441	300	0.898894	383	0.998300
	52	0.000791	135	0.089280	218	0.491446	301	0.902366	384	0.998403
	53	0.000889	136	0.091603	219	0.497729	302	0.905020	385	0.998566
	54	0.001000	137	0.094786	220	0.502935	303	0.907881	386	0.998677
	55	0.001112	138	0.097650	221	0.510399	304	0.910283	387	0.998794
	56	0.001216	139	0.100664	222	0.516202	305	0.913412	388	0.998886
	57	0.001349	140	0.103227	223	0.522500	306	0.915835	389	0.999023
	58	0.001486	141	0.106706	224	0.527992	307	0.918509	390	0.999095
	59	0.001646	142	0.109684	225	0.534985	308	0.920722	391	0.999185
	60	0.001798	143	0.113031	226	0.540805	309	0.923647	392	0.999250
	61	0.001964	144	0.115847	227	0.547304	310	0.925883	393	0.999338
	62	0.002152	145	0.119355	228	0.552527	311	0.928319	394	0.999395
	63	0.002365	146	0.122748	229	0.559632	312	0.930404	395	0.999464
	64	0.002546	147	0.126417	230	0.565421	313	0.933062	396	0.999502
	65	0.002780	148	0.129252	231	0.571474	314	0.935142	397	0.999574
	66	0.003021	149	0.133338	232	0.576733	315	0.937322	398	0.999615
	67	0.003307	150	0.136812	233	0.583563	316	0.939160	399	0.999659
	68	0.003507	151	0.140512	234	0.589354	317	0.941679	400	0.999693
	69	0.003844	152	0.143811	235	0.595562	318	0.943490	401	0.999737

Table 1: Exact null distribution of MN, for  $n = 5, \dots, 17$  (continued)

$n$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$
	70	0.004145	153	0.147914	236	0.600810	319	0.945474	402	0.999764
	71	0.004456	154	0.151497	237	0.607646	320	0.947198	403	0.999802
	72	0.004793	155	0.155764	238	0.613152	321	0.949325	404	0.999821
	73	0.005117	156	0.159050	239	0.619290	322	0.951029	405	0.999854
	74	0.005499	157	0.163514	240	0.624493	323	0.952891	406	0.999868
	75	0.005969	158	0.167616	241	0.631165	324	0.954383	407	0.999891
	76	0.006262	159	0.171887	242	0.636691	325	0.956375	408	0.999903
	77	0.006751	160	0.175378	243	0.642706	326	0.957879	409	0.999923
	78	0.007223	161	0.180101	244	0.647681	327	0.959522	410	0.999931
	79	0.007664	162	0.184275	245	0.654481	328	0.960896	411	0.999944
	80	0.008147	163	0.188818	246	0.659834	329	0.962672	412	0.999952
	81	0.008687	164	0.192523	247	0.665761	330	0.963961	413	0.999963
	82	0.009214	165	0.197560	248	0.670844	331	0.965460	414	0.999969
	83	0.009854	166	0.201776	249	0.677234	332	0.966719	415	0.999976
	84	0.010332	167	0.206583	250	0.682504	333	0.968253	416	0.999979
	85	0.011015	168	0.210655	251	0.688316	334	0.969488	417	0.999987
	86	0.011664	169	0.215695	252	0.693045	335	0.970836	418	0.999988
	87	0.012385	170	0.220423	253	0.699291	336	0.971870	419	0.999992
	88	0.012967	171	0.225355	254	0.704411	337	0.973259	420	0.999993
	89	0.013732	172	0.229266	255	0.709866	338	0.974311	421	0.999995
	90	0.014524	173	0.235029	256	0.714609	339	0.975433	422	0.999996
	91	0.015337	174	0.239747	257	0.720763	340	0.976389	423	0.999998
	92	0.016036	175	0.244864	258	0.725628	341	0.977630	424	0.999998
	93	0.017031	176	0.249194	259	0.730925	342	0.978496	425	0.999999
	94	0.017854	177	0.254853	260	0.735516	343	0.979506	427	1.000000
	95	0.018838	178	0.259794	261	0.741316	344	0.980364	429	1.000000
	96	0.019684	179	0.265250	262	0.746074	345	0.981443		
	97	0.020658	180	0.269647	263	0.751301	346	0.982246		
	98	0.021690	181	0.275528	264	0.755540	347	0.983139		
	99	0.022819	182	0.280662	265	0.761304	348	0.983821		
12	11	0.000000	127	0.017385	236	0.269132	345	0.771389	454	0.987881
	14	0.000000	128	0.017963	237	0.273672	346	0.775031	455	0.988420
	17	0.000000	129	0.018741	238	0.277725	347	0.779130	456	0.988825
	19	0.000000	130	0.019421	239	0.282318	348	0.782415	457	0.989347
	20	0.000000	131	0.020279	240	0.285977	349	0.786461	458	0.989769
	22	0.000000	132	0.020952	241	0.290691	350	0.790004	459	0.990243
	23	0.000000	133	0.021778	242	0.294705	351	0.793908	460	0.990599
	25	0.000001	134	0.022554	243	0.299549	352	0.797040	461	0.991059
	26	0.000001	135	0.023487	244	0.303362	353	0.801009	462	0.991422
	27	0.000001	136	0.024243	245	0.308041	354	0.804384	463	0.991838
	28	0.000001	137	0.025181	246	0.312312	355	0.808166	464	0.992147
	29	0.000002	138	0.026037	247	0.317111	356	0.811199	465	0.992540

Table 1: Exact null distribution of MN, for  $n = 5, \dots, 17$  (continued)

$n$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$
	30	0.000002	139	0.027106	248	0.320934	357	0.815006	466	0.992865
	31	0.000003	140	0.027911	249	0.325856	358	0.818266	467	0.993234
	32	0.000003	141	0.028959	250	0.330137	359	0.821855	468	0.993497
	33	0.000004	142	0.029927	251	0.335140	360	0.824749	469	0.993840
	34	0.000005	143	0.031050	252	0.339114	361	0.828388	470	0.994114
	35	0.000006	144	0.031958	253	0.344052	362	0.831466	471	0.994423
	36	0.000007	145	0.033129	254	0.348453	363	0.834962	472	0.994650
	37	0.000009	146	0.034156	255	0.353482	364	0.837703	473	0.994949
	38	0.000010	147	0.035438	256	0.357540	365	0.841138	474	0.995177
	39	0.000013	148	0.036459	257	0.362619	366	0.844159	475	0.995442
	40	0.000015	149	0.037686	258	0.367053	367	0.847434	476	0.995642
	41	0.000019	150	0.038863	259	0.372228	368	0.850071	477	0.995897
	42	0.000022	151	0.040258	260	0.376258	369	0.853380	478	0.996095
	43	0.000026	152	0.041324	261	0.381474	370	0.856180	479	0.996322
	44	0.000031	153	0.042743	262	0.386018	371	0.859351	480	0.996483
	45	0.000035	154	0.043994	263	0.391166	372	0.861882	481	0.996697
	46	0.000042	155	0.045499	264	0.395316	373	0.865010	482	0.996862
	47	0.000049	156	0.046715	265	0.400564	374	0.867700	483	0.997052
	48	0.000055	157	0.048196	266	0.405086	375	0.870673	484	0.997185
	49	0.000066	158	0.049568	267	0.410387	376	0.873066	485	0.997369
	50	0.000072	159	0.051228	268	0.414601	377	0.876042	486	0.997510
	51	0.000085	160	0.052518	269	0.419806	378	0.878596	487	0.997670
	52	0.000097	161	0.054181	270	0.424497	379	0.881428	488	0.997782
	53	0.000108	162	0.055660	271	0.429781	380	0.883681	489	0.997932
	54	0.000123	163	0.057468	272	0.433934	381	0.886536	490	0.998043
	55	0.000141	164	0.058872	273	0.439272	382	0.888929	491	0.998179
	56	0.000157	165	0.060651	274	0.443901	383	0.891602	492	0.998272
	57	0.000177	166	0.062300	275	0.449219	384	0.893717	493	0.998395
	58	0.000197	167	0.064185	276	0.453547	385	0.896359	494	0.998488
	59	0.000223	168	0.065703	277	0.458838	386	0.898615	495	0.998593
	60	0.000246	169	0.067666	278	0.463524	387	0.901139	496	0.998667
	61	0.000275	170	0.069361	279	0.468871	388	0.903150	497	0.998770
	62	0.000302	171	0.071489	280	0.473125	389	0.905643	498	0.998845
	63	0.000338	172	0.073137	281	0.478527	390	0.907786	499	0.998933
	64	0.000372	173	0.075148	282	0.483213	391	0.910135	500	0.998993
	65	0.000409	174	0.077067	283	0.488651	392	0.911995	501	0.999076
	66	0.000448	175	0.079277	284	0.492931	393	0.914331	502	0.999134
	67	0.000498	176	0.080999	285	0.498367	394	0.916328	503	0.999205
	68	0.000540	177	0.083255	286	0.503073	395	0.918545	504	0.999251
	69	0.000591	178	0.085243	287	0.508360	396	0.920289	505	0.999316
	70	0.000644	179	0.087635	288	0.512685	397	0.922471	506	0.999362
	71	0.000712	180	0.089529	289	0.518107	398	0.924349	507	0.999419



Table 1: Exact null distribution of MN, for  $n = 5, \dots, 17$  (continued)

$n$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$
	72	0.000762	181	0.091900	290	0.522750	399	0.926396	508	0.999456
	73	0.000839	182	0.094024	291	0.528186	400	0.928035	509	0.999506
	74	0.000901	183	0.096567	292	0.532429	401	0.930108	510	0.999542
	75	0.000986	184	0.098576	293	0.537726	402	0.931829	511	0.999584
	76	0.001067	185	0.101107	294	0.542469	403	0.933745	512	0.999612
	77	0.001143	186	0.103390	295	0.547756	404	0.935267	513	0.999652
	78	0.001233	187	0.106102	296	0.551974	405	0.937183	514	0.999677
	79	0.001347	188	0.108205	297	0.557300	406	0.938797	515	0.999713
	80	0.001429	189	0.110932	298	0.561938	407	0.940563	516	0.999731
	81	0.001548	190	0.113368	299	0.567221	408	0.941964	517	0.999759
	82	0.001654	191	0.116186	300	0.571489	409	0.943728	518	0.999779
	83	0.001785	192	0.118428	301	0.576767	410	0.945221	519	0.999803
	84	0.001904	193	0.121333	302	0.581400	411	0.946875	520	0.999819
	85	0.002035	194	0.123846	303	0.586627	412	0.948171	521	0.999842
	86	0.002169	195	0.126877	304	0.590825	413	0.949791	522	0.999855
	87	0.002338	196	0.129284	305	0.596118	414	0.951168	523	0.999873
	88	0.002472	197	0.132213	306	0.600668	415	0.952672	524	0.999884
	89	0.002645	198	0.134981	307	0.605868	416	0.953852	525	0.999899
	90	0.002801	199	0.138158	308	0.609998	417	0.955343	526	0.999909
	91	0.003012	200	0.140603	309	0.615237	418	0.956589	527	0.999921
	92	0.003174	201	0.143846	310	0.619785	419	0.957998	528	0.999927
	93	0.003376	202	0.146658	311	0.624861	420	0.959094	529	0.999939
	94	0.003579	203	0.150006	312	0.628940	421	0.960451	530	0.999945
	95	0.003812	204	0.152694	313	0.634104	422	0.961610	531	0.999953
	96	0.004009	205	0.155999	314	0.638498	423	0.962883	532	0.999957
	97	0.004269	206	0.159001	315	0.643574	424	0.963886	533	0.999964
	98	0.004491	207	0.162501	316	0.647614	425	0.965163	534	0.999969
	99	0.004788	208	0.165257	317	0.652590	426	0.966198	535	0.999974
	100	0.005024	209	0.168787	318	0.657003	427	0.967365	536	0.999977
	101	0.005299	210	0.171888	319	0.661884	428	0.968266	537	0.999981
	102	0.005579	211	0.175592	320	0.665801	429	0.969401	538	0.999983
	103	0.005918	212	0.178461	321	0.670774	430	0.970355	539	0.999987
	104	0.006179	213	0.182141	322	0.675062	431	0.971404	540	0.999989
	105	0.006526	214	0.185425	323	0.679924	432	0.972228	541	0.999991
	106	0.006848	215	0.189169	324	0.683811	433	0.973269	542	0.999992
	107	0.007228	216	0.192204	325	0.688610	434	0.974127	543	0.999994
	108	0.007552	217	0.196070	326	0.692825	435	0.975091	544	0.999995
	109	0.007942	218	0.199401	327	0.697526	436	0.975817	545	0.999996
	110	0.008301	219	0.203418	328	0.701352	437	0.976738	546	0.999997
	111	0.008767	220	0.206549	329	0.706145	438	0.977515	547	0.999998
	112	0.009122	221	0.210443	330	0.710227	439	0.978369	548	0.999998
	113	0.009581	222	0.214028	331	0.714868	440	0.979028	549	0.999999

Table 1: Exact null distribution of MN, for  $n = 5, \dots, 17$  (continued)

$n$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$
	114	0.010001	223	0.218114	332	0.718539	441	0.979873	550	0.999999
	115	0.010525	224	0.221330	333	0.723181	442	0.980559	551	0.999999
	116	0.010947	225	0.225497	334	0.727207	443	0.981337	552	0.999999
	117	0.011452	226	0.229148	335	0.731658	444	0.981935	553	1.000000
	118	0.011949	227	0.233412	336	0.735268	445	0.982683	554	1.000000
	119	0.012534	228	0.236833	337	0.739784	446	0.983308	555	1.000000
	120	0.012997	229	0.241049	338	0.743613	447	0.983993	556	1.000000
	121	0.013618	230	0.244828	339	0.748018	448	0.984513	557	1.000000
	122	0.014133	231	0.249233	340	0.751497	449	0.985194	558	1.000000
	123	0.014821	232	0.252703	341	0.755797	450	0.985734	559	1.000000
	124	0.015372	233	0.257142	342	0.759593	451	0.986340	561	1.000000
	125	0.015995	234	0.261011	343	0.763778	452	0.986805		
	126	0.016640	235	0.265551	344	0.767134	453	0.987396		
13	12	0.000000	159	0.012931	299	0.256819	439	0.779244	579	0.990736
	15	0.000000	160	0.013346	300	0.259836	440	0.781944	580	0.991016
	18	0.000000	161	0.013804	301	0.263355	441	0.785157	581	0.991356
	20	0.000000	162	0.014238	302	0.266502	442	0.788047	582	0.991642
	21	0.000000	163	0.014764	303	0.270259	443	0.791300	583	0.991972
	23	0.000000	164	0.015212	304	0.273351	444	0.793946	584	0.992222
	24	0.000000	165	0.015726	305	0.276906	445	0.797088	585	0.992530
	26	0.000000	166	0.016204	306	0.280163	446	0.799851	586	0.992785
	27	0.000000	167	0.016785	307	0.284000	447	0.803024	587	0.993080
	28	0.000000	168	0.017277	308	0.287135	448	0.805599	588	0.993302
	29	0.000000	169	0.017846	309	0.290784	449	0.808620	589	0.993574
	30	0.000000	170	0.018376	310	0.294119	450	0.811305	590	0.993798
	31	0.000000	171	0.018995	311	0.298006	451	0.814364	591	0.994057
	32	0.000000	172	0.019549	312	0.301224	452	0.816833	592	0.994255
	33	0.000000	173	0.020170	313	0.304985	453	0.819772	593	0.994499
	34	0.000000	174	0.020732	314	0.308363	454	0.822378	594	0.994697
	35	0.000000	175	0.021445	315	0.312328	455	0.825344	595	0.994928
	36	0.000001	176	0.022034	316	0.315622	456	0.827729	596	0.995100
	37	0.000001	177	0.022701	317	0.319405	457	0.830570	597	0.995314
	38	0.000001	178	0.023347	318	0.322853	458	0.833058	598	0.995491
	39	0.000001	179	0.024092	319	0.326938	459	0.835907	599	0.995695
	40	0.000001	180	0.024736	320	0.330234	460	0.838219	600	0.995846
	41	0.000002	181	0.025487	321	0.334085	461	0.840923	601	0.996035
	42	0.000002	182	0.026166	322	0.337633	462	0.843333	602	0.996186
	43	0.000002	183	0.026992	323	0.341708	463	0.846094	603	0.996366
	44	0.000003	184	0.027703	324	0.345090	464	0.848293	604	0.996499
	45	0.000003	185	0.028506	325	0.349090	465	0.850913	605	0.996661
	46	0.000004	186	0.029244	326	0.352616	466	0.853238	606	0.996793
	47	0.000004	187	0.030145	327	0.356798	467	0.855858	607	0.996949

Table 1: Exact null distribution of MN, for  $n = 5, \dots, 17$  (continued)

$n$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$
	48	0.000005	188	0.030909	328	0.360231	468	0.857999	608	0.997063
	49	0.000006	189	0.031774	329	0.364194	469	0.860527	609	0.997206
	50	0.000007	190	0.032588	330	0.367814	470	0.862734	610	0.997320
	51	0.000008	191	0.033561	331	0.372039	471	0.865273	611	0.997457
	52	0.000010	192	0.034376	332	0.375491	472	0.867312	612	0.997557
	53	0.000012	193	0.035326	333	0.379533	473	0.869718	613	0.997680
	54	0.000013	194	0.036200	334	0.383210	474	0.871852	614	0.997778
	55	0.000015	195	0.037243	335	0.387468	475	0.874273	615	0.997895
	56	0.000017	196	0.038141	336	0.390952	476	0.876216	616	0.997979
	57	0.000019	197	0.039161	337	0.395065	477	0.878527	617	0.998085
	58	0.000022	198	0.040083	338	0.398768	478	0.880569	618	0.998170
	59	0.000025	199	0.041230	339	0.403054	479	0.882882	619	0.998269
	60	0.000028	200	0.042185	340	0.406618	480	0.884742	620	0.998342
	61	0.000032	201	0.043258	341	0.410718	481	0.886972	621	0.998434
	62	0.000036	202	0.044291	342	0.414433	482	0.888904	622	0.998505
	63	0.000040	203	0.045486	343	0.418817	483	0.891116	623	0.998590
	64	0.000045	204	0.046505	344	0.422355	484	0.892890	624	0.998651
	65	0.000051	205	0.047704	345	0.426505	485	0.894986	625	0.998729
	66	0.000056	206	0.048769	346	0.430292	486	0.896835	626	0.998789
	67	0.000063	207	0.050073	347	0.434635	487	0.898941	627	0.998862
	68	0.000070	208	0.051187	348	0.438226	488	0.900619	628	0.998912
	69	0.000077	209	0.052430	349	0.442451	489	0.902626	629	0.998977
	70	0.000085	210	0.053595	350	0.446207	490	0.904389	630	0.999029
	71	0.000094	211	0.054989	351	0.450638	491	0.906378	631	0.999090
	72	0.000103	212	0.056160	352	0.454252	492	0.907980	632	0.999131
	73	0.000113	213	0.057503	353	0.458440	493	0.909884	633	0.999186
	74	0.000125	214	0.058747	354	0.462233	494	0.911555	634	0.999227
	75	0.000137	215	0.060237	355	0.466665	495	0.913452	635	0.999278
	76	0.000149	216	0.061470	356	0.470259	496	0.914968	636	0.999313
	77	0.000165	217	0.062920	357	0.474475	497	0.916772	637	0.999359
	78	0.000177	218	0.064240	358	0.478304	498	0.918352	638	0.999393
	79	0.000195	219	0.065797	359	0.482716	499	0.920149	639	0.999436
	80	0.000213	220	0.067147	360	0.486325	500	0.921583	640	0.999464
	81	0.000229	221	0.068669	361	0.490578	501	0.923290	641	0.999501
	82	0.000249	222	0.070055	362	0.494376	502	0.924786	642	0.999529
	83	0.000271	223	0.071765	363	0.498781	503	0.926475	643	0.999563
	84	0.000292	224	0.073158	364	0.502442	504	0.927830	644	0.999586
	85	0.000317	225	0.074763	365	0.506657	505	0.929453	645	0.999617
	86	0.000340	226	0.076271	366	0.510463	506	0.930853	646	0.999640
	87	0.000368	227	0.078022	367	0.514921	507	0.932463	647	0.999668
	88	0.000396	228	0.079511	368	0.518508	508	0.933744	648	0.999686
	89	0.000426	229	0.081250	369	0.522741	509	0.935259	649	0.999710

Table 1: Exact null distribution of MN, for  $n = 5, \dots, 17$  (continued)

$n$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$
	90	0.000456	230	0.082809	370	0.526599	510	0.936587	650	0.999728
	91	0.000492	231	0.084688	371	0.530974	511	0.938097	651	0.999750
	92	0.000527	232	0.086276	372	0.534580	512	0.939289	652	0.999765
	93	0.000565	233	0.088070	373	0.538821	513	0.940713	653	0.999785
	94	0.000601	234	0.089743	374	0.542597	514	0.941959	654	0.999798
	95	0.000649	235	0.091737	375	0.547011	515	0.943373	655	0.999816
	96	0.000690	236	0.093386	376	0.550608	516	0.944497	656	0.999827
	97	0.000737	237	0.095297	377	0.554827	517	0.945835	657	0.999843
	98	0.000784	238	0.097057	378	0.558612	518	0.946993	658	0.999853
	99	0.000838	239	0.099145	379	0.562988	519	0.948315	659	0.999867
100	0.000891	240	0.100892	380	0.566545	520	0.949378	660	0.999876	
101	0.000950	241	0.102916	381	0.570731	521	0.950633	661	0.999887	
102	0.001003	242	0.104759	382	0.574510	522	0.951721	662	0.999896	
103	0.001074	243	0.106935	383	0.578831	523	0.952960	663	0.999906	
104	0.001137	244	0.108786	384	0.582358	524	0.953938	664	0.999912	
105	0.001204	245	0.110893	385	0.586551	525	0.955117	665	0.999922	
106	0.001274	246	0.112805	386	0.590259	526	0.956137	666	0.999928	
107	0.001356	247	0.115164	387	0.594549	527	0.957290	667	0.999935	
108	0.001428	248	0.117067	388	0.598082	528	0.958201	668	0.999940	
109	0.001514	249	0.119263	389	0.602172	529	0.959294	669	0.999947	
110	0.001594	250	0.121325	390	0.605896	530	0.960240	670	0.999951	
111	0.001690	251	0.123701	391	0.610190	531	0.961317	671	0.999957	
112	0.001781	252	0.125710	392	0.613640	532	0.962171	672	0.999960	
113	0.001878	253	0.128051	393	0.617724	533	0.963187	673	0.999965	
114	0.001972	254	0.130142	394	0.621408	534	0.964065	674	0.999968	
115	0.002089	255	0.132678	395	0.625597	535	0.965069	675	0.999972	
116	0.002191	256	0.134788	396	0.629039	536	0.965848	676	0.999974	
117	0.002309	257	0.137197	397	0.633098	537	0.966791	677	0.999978	
118	0.002420	258	0.139414	398	0.636688	538	0.967604	678	0.999980	
119	0.002557	259	0.142049	399	0.640855	539	0.968520	679	0.999983	
120	0.002676	260	0.144252	400	0.644264	540	0.969252	680	0.999984	
121	0.002811	261	0.146759	401	0.648236	541	0.970124	681	0.999987	
122	0.002945	262	0.149084	402	0.651818	542	0.970871	682	0.999988	
123	0.003097	263	0.151828	403	0.655952	543	0.971725	683	0.999990	
124	0.003239	264	0.154080	404	0.659272	544	0.972394	684	0.999991	
125	0.003401	265	0.156737	405	0.663214	545	0.973199	685	0.999992	
126	0.003543	266	0.159133	406	0.666734	546	0.973892	686	0.999993	
127	0.003731	267	0.161963	407	0.670761	547	0.974679	687	0.999994	
128	0.003892	268	0.164351	408	0.674039	548	0.975295	688	0.999995	
129	0.004066	269	0.167069	409	0.677918	549	0.976040	689	0.999996	
130	0.004246	270	0.169552	410	0.681367	550	0.976674	690	0.999996	
131	0.004449	271	0.172544	411	0.685327	551	0.977394	691	0.999997	

Table 1: Exact null distribution of MN, for  $n = 5, \dots, 17$  (continued)

$n$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$
	132	0.004631	272	0.174980	412	0.688575	552	0.977961	692	0.999997
	133	0.004843	273	0.177816	413	0.692349	553	0.978641	693	0.999998
	134	0.005034	274	0.180434	414	0.695741	554	0.979218	694	0.999998
	135	0.005274	275	0.183472	415	0.699659	555	0.979882	695	0.999999
	136	0.005484	276	0.185994	416	0.702817	556	0.980399	696	0.999999
	137	0.005718	277	0.188961	417	0.706551	557	0.981019	697	0.999999
	138	0.005940	278	0.191610	418	0.709890	558	0.981550	698	0.999999
	139	0.006209	279	0.194773	419	0.713683	559	0.982159	699	0.999999
	140	0.006448	280	0.197416	420	0.716793	560	0.982628	700	0.999999
	141	0.006711	281	0.200420	421	0.720458	561	0.983194	701	1.000000
	142	0.006963	282	0.203188	422	0.723708	562	0.983675	702	1.000000
	143	0.007272	283	0.206463	423	0.727445	563	0.984226	703	1.000000
	144	0.007532	284	0.209149	424	0.730480	564	0.984655	704	1.000000
	145	0.007838	285	0.212281	425	0.734048	565	0.985171	705	1.000000
	146	0.008122	286	0.215165	426	0.737239	566	0.985609	706	1.000000
	147	0.008457	287	0.218535	427	0.740898	567	0.986110	707	1.000000
	148	0.008759	288	0.221301	428	0.743851	568	0.986496	708	1.000000
	149	0.009096	289	0.224551	429	0.747365	569	0.986963	709	1.000000
	150	0.009406	290	0.227483	430	0.750490	570	0.987358	710	1.000000
	151	0.009797	291	0.230924	431	0.754033	571	0.987811	711	1.000000
	152	0.010130	292	0.233831	432	0.756908	572	0.988161	713	1.000000
	153	0.010497	293	0.237135	433	0.760326	573	0.988587	715	1.000000
	154	0.010857	294	0.240134	434	0.763343	574	0.988943		
	155	0.011280	295	0.243749	435	0.766798	575	0.989352		
	156	0.011646	296	0.246658	436	0.769621	576	0.989666		
	157	0.012075	297	0.250059	437	0.772924	577	0.990048		
	158	0.012460	298	0.253194	438	0.775869	578	0.990367		
14	13	0.000000	196	0.009656	372	0.243979	548	0.784790	724	0.992642
	16	0.000000	197	0.009960	373	0.246826	549	0.787410	725	0.992875
	19	0.000000	198	0.010223	374	0.249313	550	0.789720	726	0.993070
	21	0.000000	199	0.010549	375	0.252279	551	0.792422	727	0.993304
	22	0.000000	200	0.010836	376	0.254819	552	0.794671	728	0.993487
	24	0.000000	201	0.011163	377	0.257704	553	0.797231	729	0.993698
	25	0.000000	202	0.011449	378	0.260227	554	0.799477	730	0.993876
	27	0.000000	203	0.011811	379	0.263291	555	0.802100	731	0.994087
	28	0.000000	204	0.012120	380	0.265861	556	0.804300	732	0.994252
	29	0.000000	205	0.012477	381	0.268804	557	0.806793	733	0.994444
	30	0.000000	206	0.012795	382	0.271398	558	0.808971	734	0.994604
	31	0.000000	207	0.013178	383	0.274507	559	0.811545	735	0.994795
	32	0.000000	208	0.013518	384	0.277131	560	0.813678	736	0.994944
	33	0.000000	209	0.013910	385	0.280133	561	0.816087	737	0.995117
	34	0.000000	210	0.014246	386	0.282775	562	0.818218	738	0.995261

Table 1: Exact null distribution of MN, for  $n = 5, \dots, 17$  (continued)

$n$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$
	35	0.000000	211	0.014672	387	0.285931	563	0.820709	739	0.995434
	36	0.000000	212	0.015039	388	0.288602	564	0.822774	740	0.995568
	37	0.000000	213	0.015460	389	0.291675	565	0.825132	741	0.995725
	38	0.000000	214	0.015832	390	0.294340	566	0.827193	742	0.995855
	39	0.000000	215	0.016290	391	0.297566	567	0.829604	743	0.996009
	40	0.000000	216	0.016687	392	0.300293	568	0.831620	744	0.996129
	41	0.000000	217	0.017143	393	0.303378	569	0.833898	745	0.996270
	42	0.000000	218	0.017544	394	0.306114	570	0.835893	746	0.996385
	43	0.000000	219	0.018040	395	0.309398	571	0.838245	747	0.996524
	44	0.000000	220	0.018467	396	0.312140	572	0.840192	748	0.996632
	45	0.000000	221	0.018967	397	0.315310	573	0.842400	749	0.996758
	46	0.000000	222	0.019397	398	0.318080	574	0.844347	750	0.996860
	47	0.000000	223	0.019928	399	0.321383	575	0.846616	751	0.996985
	48	0.000000	224	0.020397	400	0.324196	576	0.848499	752	0.997080
	49	0.000001	225	0.020925	401	0.327397	577	0.850639	753	0.997192
	50	0.000001	226	0.021390	402	0.330190	578	0.852516	754	0.997284
	51	0.000001	227	0.021972	403	0.333573	579	0.854708	755	0.997395
	52	0.000001	228	0.022463	404	0.336412	580	0.856534	756	0.997480
	53	0.000001	229	0.023038	405	0.339646	581	0.858606	757	0.997580
	54	0.000001	230	0.023543	406	0.342506	582	0.860416	758	0.997661
	55	0.000001	231	0.024155	407	0.345914	583	0.862544	759	0.997759
	56	0.000002	232	0.024692	408	0.348781	584	0.864306	760	0.997834
	57	0.000002	233	0.025310	409	0.352068	585	0.866297	761	0.997922
	58	0.000002	234	0.025844	410	0.354955	586	0.868054	762	0.997993
	59	0.000002	235	0.026511	411	0.358400	587	0.870103	763	0.998080
	60	0.000003	236	0.027085	412	0.361311	588	0.871795	764	0.998146
	61	0.000003	237	0.027741	413	0.364646	589	0.873734	765	0.998224
	62	0.000004	238	0.028320	414	0.367553	590	0.875422	766	0.998287
	63	0.000004	239	0.029032	415	0.371042	591	0.877392	767	0.998364
	64	0.000005	240	0.029643	416	0.373993	592	0.879034	768	0.998422
	65	0.000005	241	0.030347	417	0.377329	593	0.880886	769	0.998491
	66	0.000006	242	0.030966	418	0.380282	594	0.882508	770	0.998545
	67	0.000007	243	0.031726	419	0.383814	595	0.884413	771	0.998613
	68	0.000008	244	0.032380	420	0.386757	596	0.885983	772	0.998663
	69	0.000009	245	0.033138	421	0.390166	597	0.887769	773	0.998723
	70	0.000010	246	0.033795	422	0.393144	598	0.889338	774	0.998771
	71	0.000011	247	0.034602	423	0.396675	599	0.891164	775	0.998830
	72	0.000012	248	0.035306	424	0.399681	600	0.892674	776	0.998873
	73	0.000013	249	0.036103	425	0.403091	601	0.894395	777	0.998925
	74	0.000015	250	0.036802	426	0.406078	602	0.895896	778	0.998967
	75	0.000016	251	0.037677	427	0.409672	603	0.897647	779	0.999018
	76	0.000018	252	0.038411	428	0.412677	604	0.899102	780	0.999056

Table 1: Exact null distribution of MN, for  $n = 5, \dots, 17$  (continued)

$n$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$
	77	0.000020	253	0.039267	429	0.416114	605	0.900748	781	0.999102
	78	0.000022	254	0.040021	430	0.419140	606	0.902186	782	0.999137
	79	0.000024	255	0.040929	431	0.422740	607	0.903874	783	0.999182
	80	0.000026	256	0.041722	432	0.425767	608	0.905266	784	0.999214
	81	0.000029	257	0.042629	433	0.429228	609	0.906839	785	0.999253
	82	0.000032	258	0.043416	434	0.432270	610	0.908224	786	0.999284
	83	0.000035	259	0.044399	435	0.435878	611	0.909838	787	0.999322
	84	0.000038	260	0.045234	436	0.438929	612	0.911165	788	0.999350
	85	0.000042	261	0.046195	437	0.442413	613	0.912683	789	0.999383
	86	0.000045	262	0.047038	438	0.445456	614	0.914001	790	0.999410
	87	0.000050	263	0.048071	439	0.449104	615	0.915541	791	0.999442
	88	0.000054	264	0.048959	440	0.452173	616	0.916819	792	0.999466
	89	0.000059	265	0.049972	441	0.455647	617	0.918259	793	0.999495
	90	0.000063	266	0.050868	442	0.458722	618	0.919519	794	0.999517
	91	0.000069	267	0.051959	443	0.462375	619	0.920999	795	0.999545
	92	0.000074	268	0.052891	444	0.465431	620	0.922212	796	0.999565
	93	0.000081	269	0.053975	445	0.468949	621	0.923590	797	0.999589
	94	0.000087	270	0.054913	446	0.472026	622	0.924796	798	0.999608
	95	0.000094	271	0.056068	447	0.475669	623	0.926200	799	0.999631
	96	0.000101	272	0.057065	448	0.478760	624	0.927358	800	0.999648
	97	0.000109	273	0.058191	449	0.482265	625	0.928676	801	0.999668
	98	0.000116	274	0.059185	450	0.485335	626	0.929819	802	0.999684
	99	0.000126	275	0.060413	451	0.489019	627	0.931156	803	0.999704
	100	0.000134	276	0.061448	452	0.492090	628	0.932262	804	0.999718
	101	0.000145	277	0.062649	453	0.495592	629	0.933512	805	0.999735
	102	0.000154	278	0.063702	454	0.498688	630	0.934602	806	0.999748
	103	0.000166	279	0.064976	455	0.502352	631	0.935880	807	0.999765
	104	0.000177	280	0.066077	456	0.505425	632	0.936926	808	0.999776
	105	0.000190	281	0.067341	457	0.508939	633	0.938109	809	0.999790
	106	0.000201	282	0.068435	458	0.512022	634	0.939150	810	0.999801
	107	0.000216	283	0.069793	459	0.515674	635	0.940362	811	0.999814
	108	0.000230	284	0.070945	460	0.518755	636	0.941354	812	0.999824
	109	0.000246	285	0.072262	461	0.522270	637	0.942490	813	0.999836
	110	0.000260	286	0.073424	462	0.525340	638	0.943472	814	0.999845
	111	0.000278	287	0.074842	463	0.529000	639	0.944617	815	0.999856
	112	0.000295	288	0.076048	464	0.532074	640	0.945563	816	0.999863
	113	0.000314	289	0.077437	465	0.535551	641	0.946633	817	0.999873
	114	0.000332	290	0.078655	466	0.538634	642	0.947561	818	0.999880
	115	0.000353	291	0.080139	467	0.542285	643	0.948652	819	0.999889
	116	0.000374	292	0.081403	468	0.545335	644	0.949541	820	0.999895
	117	0.000397	293	0.082866	469	0.548846	645	0.950555	821	0.999903
	118	0.000418	294	0.084136	470	0.551913	646	0.951438	822	0.999908

Table 1: Exact null distribution of MN, for  $n = 5, \dots, 17$  (continued)

$n$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$
	119	0.000445	295	0.085688	471	0.555528	647	0.952466	823	0.999916
	120	0.000469	296	0.087025	472	0.558592	648	0.953307	824	0.999921
	121	0.000497	297	0.088534	473	0.562059	649	0.954266	825	0.999927
	122	0.000522	298	0.089868	474	0.565102	650	0.955098	826	0.999931
	123	0.000554	299	0.091509	475	0.568731	651	0.956068	827	0.999937
	124	0.000582	300	0.092882	476	0.571756	652	0.956864	828	0.999941
	125	0.000616	301	0.094482	477	0.575206	653	0.957768	829	0.999946
	126	0.000647	302	0.095880	478	0.578252	654	0.958549	830	0.999949
	127	0.000683	303	0.097564	479	0.581845	655	0.959468	831	0.999954
	128	0.000718	304	0.099020	480	0.584853	656	0.960217	832	0.999957
	129	0.000757	305	0.100680	481	0.588290	657	0.961064	833	0.999960
	130	0.000792	306	0.102124	482	0.591306	658	0.961803	834	0.999963
	131	0.000837	307	0.103907	483	0.594864	659	0.962665	835	0.999967
	132	0.000876	308	0.105413	484	0.597858	660	0.963366	836	0.999969
	133	0.000922	309	0.107140	485	0.601274	661	0.964171	837	0.999972
	134	0.000965	310	0.108658	486	0.604257	662	0.964863	838	0.999974
	135	0.001015	311	0.110507	487	0.607801	663	0.965673	839	0.999976
	136	0.001062	312	0.112071	488	0.610774	664	0.966337	840	0.999978
	137	0.001116	313	0.113868	489	0.614133	665	0.967088	841	0.999980
	138	0.001163	314	0.115446	490	0.617113	666	0.967737	842	0.999982
	139	0.001223	315	0.117361	491	0.620625	667	0.968500	843	0.999984
	140	0.001277	316	0.118990	492	0.623550	668	0.969117	844	0.999985
	141	0.001339	317	0.120871	493	0.626912	669	0.969822	845	0.999986
	142	0.001394	318	0.122501	494	0.629855	670	0.970431	846	0.999988
	143	0.001463	319	0.124494	495	0.633316	671	0.971143	847	0.999989
	144	0.001525	320	0.126197	496	0.636242	672	0.971720	848	0.999990
	145	0.001596	321	0.128125	497	0.639548	673	0.972381	849	0.999991
	146	0.001660	322	0.129829	498	0.642451	674	0.972949	850	0.999992
	147	0.001740	323	0.131908	499	0.645900	675	0.973615	851	0.999993
	148	0.001809	324	0.133648	500	0.648776	676	0.974157	852	0.999993
	149	0.001893	325	0.135666	501	0.652047	677	0.974773	853	0.999994
	150	0.001965	326	0.137440	502	0.654932	678	0.975302	854	0.999995
	151	0.002054	327	0.139567	503	0.658325	679	0.975927	855	0.999995
	152	0.002136	328	0.141396	504	0.661163	680	0.976430	856	0.999996
	153	0.002229	329	0.143485	505	0.664398	681	0.977002	857	0.999996
	154	0.002310	330	0.145299	506	0.667241	682	0.977498	858	0.999997
	155	0.002415	331	0.147528	507	0.670588	683	0.978076	859	0.999997
	156	0.002506	332	0.149407	508	0.673393	684	0.978544	860	0.999998
	157	0.002611	333	0.151558	509	0.676588	685	0.979080	861	0.999998
	158	0.002705	334	0.153454	510	0.679379	686	0.979539	862	0.999998
	159	0.002820	335	0.155746	511	0.682689	687	0.980078	863	0.999998
	160	0.002923	336	0.157685	512	0.685455	688	0.980514	864	0.999999



Table 1: Exact null distribution of MN, for  $n = 5, \dots, 17$  (continued)

$n$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$
	161	0.003044	337	0.159912	513	0.688580	689	0.981011	865	0.999999
	162	0.003147	338	0.161867	514	0.691350	690	0.981435	866	0.999999
	163	0.003278	339	0.164231	515	0.694604	691	0.981937	867	0.999999
	164	0.003395	340	0.166233	516	0.697314	692	0.982340	868	0.999999
	165	0.003528	341	0.168543	517	0.700420	693	0.982801	869	0.999999
	166	0.003646	342	0.170545	518	0.703137	694	0.983197	870	0.999999
	167	0.003793	343	0.172983	519	0.706324	695	0.983659	871	1.000000
	168	0.003923	344	0.175060	520	0.709012	696	0.984031	872	1.000000
	169	0.004072	345	0.177408	521	0.712045	697	0.984459	873	1.000000
	170	0.004204	346	0.179486	522	0.714711	698	0.984821	874	1.000000
	171	0.004369	347	0.182008	523	0.717871	699	0.985249	875	1.000000
	172	0.004513	348	0.184120	524	0.720496	700	0.985593	876	1.000000
	173	0.004682	349	0.186570	525	0.723480	701	0.985986	877	1.000000
	174	0.004829	350	0.188714	526	0.726117	702	0.986322	878	1.000000
	175	0.005009	351	0.191279	527	0.729201	703	0.986720	879	1.000000
	176	0.005173	352	0.193478	528	0.731778	704	0.987035	880	1.000000
	177	0.005357	353	0.195981	529	0.734716	705	0.987396	881	1.000000
	178	0.005518	354	0.198169	530	0.737290	706	0.987706	882	1.000000
	179	0.005725	355	0.200838	531	0.740313	707	0.988070	883	1.000000
	180	0.005901	356	0.203084	532	0.742846	708	0.988360	884	1.000000
	181	0.006107	357	0.205651	533	0.745726	709	0.988695	885	1.000000
	182	0.006290	358	0.207912	534	0.748246	710	0.988978	886	1.000000
	183	0.006511	359	0.210638	535	0.751221	711	0.989311	887	1.000000
	184	0.006709	360	0.212938	536	0.753699	712	0.989579	888	1.000000
	185	0.006937	361	0.215579	537	0.756497	713	0.989885	889	1.000000
	186	0.007135	362	0.217895	538	0.758974	714	0.990144	890	1.000000
	187	0.007384	363	0.220684	539	0.761875	715	0.990451	891	1.000000
	188	0.007601	364	0.223047	540	0.764284	716	0.990694	892	1.000000
	189	0.007851	365	0.225763	541	0.767049	717	0.990974	893	1.000000
	190	0.008070	366	0.228126	542	0.769465	718	0.991211	894	1.000000
	191	0.008343	367	0.230991	543	0.772291	719	0.991491	895	1.000000
	192	0.008581	368	0.233415	544	0.774669	720	0.991713	897	1.000000
	193	0.008855	369	0.236161	545	0.777350	721	0.991969		
	194	0.009098	370	0.238589	546	0.779710	722	0.992184		
	195	0.009397	371	0.241524	547	0.782489	723	0.992439		
15	14	0.000000	238	0.007185	455	0.230374	672	0.787061	889	0.993825
	17	0.000000	239	0.007382	456	0.232446	673	0.789251	890	0.993968
	20	0.000000	240	0.007563	457	0.234763	674	0.791164	891	0.994137
	22	0.000000	241	0.007767	458	0.236797	675	0.793391	892	0.994276
	23	0.000000	242	0.007949	459	0.239180	676	0.795315	893	0.994433
	25	0.000000	243	0.008162	460	0.241295	677	0.797457	894	0.994565
	26	0.000000	244	0.008358	461	0.243654	678	0.799327	895	0.994721

Table 1: Exact null distribution of MN, for  $n = 5, \dots, 17$  (continued)

$n$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$
	28	0.000000	245	0.008579	462	0.245726	679	0.801506	896	0.994848
	29	0.000000	246	0.008775	463	0.248153	680	0.803386	897	0.994993
	30	0.000000	247	0.009006	464	0.250304	681	0.805479	898	0.995114
	31	0.000000	248	0.009217	465	0.252711	682	0.807307	899	0.995257
	32	0.000000	249	0.009456	466	0.254816	683	0.809440	900	0.995374
	33	0.000000	250	0.009667	467	0.257290	684	0.811275	901	0.995507
	34	0.000000	251	0.009915	468	0.259480	685	0.813320	902	0.995618
	35	0.000000	252	0.010145	469	0.261919	686	0.815109	903	0.995749
	36	0.000000	253	0.010400	470	0.264066	687	0.817188	904	0.995855
	37	0.000000	254	0.010628	471	0.266582	688	0.818981	905	0.995977
	38	0.000000	255	0.010897	472	0.268804	689	0.820980	906	0.996078
	39	0.000000	256	0.011141	473	0.271295	690	0.822723	907	0.996198
	40	0.000000	257	0.011419	474	0.273473	691	0.824754	908	0.996295
	41	0.000000	258	0.011665	475	0.276027	692	0.826503	909	0.996406
	42	0.000000	259	0.011951	476	0.278292	693	0.828449	910	0.996499
	43	0.000000	260	0.012216	477	0.280812	694	0.830150	911	0.996609
	44	0.000000	261	0.012512	478	0.283026	695	0.832132	912	0.996697
	45	0.000000	262	0.012775	479	0.285625	696	0.833835	913	0.996798
	46	0.000000	263	0.013085	480	0.287919	697	0.835734	914	0.996882
	47	0.000000	264	0.013367	481	0.290481	698	0.837392	915	0.996982
	48	0.000000	265	0.013686	482	0.292729	699	0.839320	916	0.997062
	49	0.000000	266	0.013968	483	0.295363	700	0.840981	917	0.997155
	50	0.000000	267	0.014299	484	0.297691	701	0.842830	918	0.997230
	51	0.000000	268	0.014602	485	0.300290	702	0.844443	919	0.997321
	52	0.000000	269	0.014942	486	0.302569	703	0.846322	920	0.997394
	53	0.000000	270	0.015245	487	0.305239	704	0.847937	921	0.997478
	54	0.000000	271	0.015599	488	0.307598	705	0.849736	922	0.997547
	55	0.000000	272	0.015923	489	0.310233	706	0.851304	923	0.997629
	56	0.000000	273	0.016289	490	0.312541	707	0.853133	924	0.997695
	57	0.000000	274	0.016611	491	0.315248	708	0.854702	925	0.997771
	58	0.000000	275	0.016990	492	0.317640	709	0.856450	926	0.997833
	59	0.000000	276	0.017336	493	0.320302	710	0.857976	927	0.997907
	60	0.000000	277	0.017724	494	0.322643	711	0.859749	928	0.997967
	61	0.000000	278	0.018069	495	0.325386	712	0.861274	929	0.998036
	62	0.000000	279	0.018475	496	0.327801	713	0.862975	930	0.998091
	63	0.000000	280	0.018842	497	0.330505	714	0.864454	931	0.998159
	64	0.000000	281	0.019258	498	0.332870	715	0.866180	932	0.998212
	65	0.000000	282	0.019626	499	0.335639	716	0.867661	933	0.998274
	66	0.000001	283	0.020055	500	0.338087	717	0.869307	934	0.998324
	67	0.000001	284	0.020449	501	0.340811	718	0.870744	935	0.998385
	68	0.000001	285	0.020891	502	0.343203	719	0.872419	936	0.998433
	69	0.000001	286	0.021281	503	0.346010	720	0.873853	937	0.998488

Table 1: Exact null distribution of MN, for  $n = 5, \dots, 17$  (continued)

$n$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$
	70	0.000001	287	0.021741	504	0.348478	721	0.875453	938	0.998533
	71	0.000001	288	0.022158	505	0.351238	722	0.876846	939	0.998587
	72	0.000001	289	0.022627	506	0.353656	723	0.878466	940	0.998630
	73	0.000001	290	0.023043	507	0.356486	724	0.879856	941	0.998680
	74	0.000001	291	0.023530	508	0.358981	725	0.881406	942	0.998720
	75	0.000002	292	0.023974	509	0.361763	726	0.882753	943	0.998769
	76	0.000002	293	0.024472	510	0.364206	727	0.884324	944	0.998807
	77	0.000002	294	0.024913	511	0.367064	728	0.885671	945	0.998852
	78	0.000002	295	0.025430	512	0.369580	729	0.887170	946	0.998887
	79	0.000003	296	0.025899	513	0.372391	730	0.888476	947	0.998931
	80	0.000003	297	0.026430	514	0.374850	731	0.889998	948	0.998965
	81	0.000003	298	0.026896	515	0.377734	732	0.891299	949	0.999004
	82	0.000004	299	0.027444	516	0.380275	733	0.892748	950	0.999036
	83	0.000004	300	0.027944	517	0.383101	734	0.894011	951	0.999075
	84	0.000004	301	0.028502	518	0.385587	735	0.895479	952	0.999105
	85	0.000005	302	0.028997	519	0.388493	736	0.896736	953	0.999140
	86	0.000005	303	0.029579	520	0.391047	737	0.898141	954	0.999168
	87	0.000006	304	0.030104	521	0.393904	738	0.899357	955	0.999203
	88	0.000006	305	0.030698	522	0.396405	739	0.900777	956	0.999229
	89	0.000007	306	0.031221	523	0.399330	740	0.901992	957	0.999260
	90	0.000008	307	0.031833	524	0.401908	741	0.903343	958	0.999285
	91	0.000008	308	0.032391	525	0.404776	742	0.904520	959	0.999315
	92	0.000009	309	0.033016	526	0.407291	743	0.905891	960	0.999339
	93	0.000010	310	0.033568	527	0.410243	744	0.907059	961	0.999366
	94	0.000011	311	0.034218	528	0.412830	745	0.908367	962	0.999388
	95	0.000012	312	0.034805	529	0.415718	746	0.909501	963	0.999415
	96	0.000013	313	0.035465	530	0.418250	747	0.910820	964	0.999435
	97	0.000014	314	0.036047	531	0.421212	748	0.911949	965	0.999459
	98	0.000015	315	0.036732	532	0.423815	749	0.913207	966	0.999478
	99	0.000016	316	0.037351	533	0.426716	750	0.914299	967	0.999502
	100	0.000018	317	0.038046	534	0.429261	751	0.915572	968	0.999520
	101	0.000019	318	0.038660	535	0.432241	752	0.916658	969	0.999541
	102	0.000021	319	0.039380	536	0.434856	753	0.917868	970	0.999558
	103	0.000022	320	0.040031	537	0.437773	754	0.918919	971	0.999578
	104	0.000024	321	0.040765	538	0.440326	755	0.920145	972	0.999594
	105	0.000026	322	0.041409	539	0.443319	756	0.921187	973	0.999612
	106	0.000028	323	0.042167	540	0.445946	757	0.922352	974	0.999627
	107	0.000030	324	0.042854	541	0.448866	758	0.923364	975	0.999645
	108	0.000032	325	0.043621	542	0.451434	759	0.924540	976	0.999658
	109	0.000034	326	0.044300	543	0.454435	760	0.925544	977	0.999674
	110	0.000037	327	0.045098	544	0.457065	761	0.926665	978	0.999687
	111	0.000040	328	0.045816	545	0.460005	762	0.927635	979	0.999702

Table 1: Exact null distribution of MN, for  $n = 5, \dots, 17$  (continued)

$n$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$
	112	0.000042	329	0.046626	546	0.462576	763	0.928766	980	0.999714
	113	0.000045	330	0.047340	547	0.465584	764	0.929729	981	0.999728
	114	0.000048	331	0.048173	548	0.468229	765	0.930803	982	0.999738
	115	0.000052	332	0.048931	549	0.471166	766	0.931734	983	0.999752
	116	0.000055	333	0.049778	550	0.473746	767	0.932821	984	0.999762
	117	0.000059	334	0.050524	551	0.476767	768	0.933743	985	0.999774
	118	0.000063	335	0.051403	552	0.479407	769	0.934774	986	0.999783
	119	0.000067	336	0.052194	553	0.482354	770	0.935668	987	0.999794
	120	0.000071	337	0.053083	554	0.484938	771	0.936707	988	0.999803
	121	0.000076	338	0.053866	555	0.487957	772	0.937592	989	0.999813
	122	0.000080	339	0.054785	556	0.490603	773	0.938579	990	0.999821
	123	0.000085	340	0.055614	557	0.493551	774	0.939433	991	0.999831
	124	0.000091	341	0.056542	558	0.496135	775	0.940430	992	0.999838
	125	0.000096	342	0.057363	559	0.499155	776	0.941277	993	0.999847
	126	0.000102	343	0.058324	560	0.501801	777	0.942222	994	0.999853
	127	0.000108	344	0.059190	561	0.504752	778	0.943040	995	0.999862
	128	0.000114	345	0.060165	562	0.507334	779	0.943994	996	0.999868
	129	0.000121	346	0.061019	563	0.510357	780	0.944803	997	0.999875
	130	0.000128	347	0.062025	564	0.513000	781	0.945706	998	0.999881
	131	0.000135	348	0.062932	565	0.515943	782	0.946488	999	0.999888
	132	0.000143	349	0.063944	566	0.518528	783	0.947398	1000	0.999893
	133	0.000152	350	0.064839	567	0.521544	784	0.948171	1001	0.999899
	134	0.000159	351	0.065890	568	0.524183	785	0.949036	1002	0.999904
	135	0.000169	352	0.066832	569	0.527130	786	0.949781	1003	0.999910
	136	0.000177	353	0.067895	570	0.529709	787	0.950651	1004	0.999914
	137	0.000188	354	0.068827	571	0.532720	788	0.951389	1005	0.999919
	138	0.000197	355	0.069920	572	0.535359	789	0.952211	1006	0.999923
	139	0.000208	356	0.070908	573	0.538290	790	0.952924	1007	0.999928
	140	0.000219	357	0.072011	574	0.540863	791	0.953754	1008	0.999931
	141	0.000230	358	0.072982	575	0.543874	792	0.954456	1009	0.999936
	142	0.000242	359	0.074126	576	0.546498	793	0.955242	1010	0.999939
	143	0.000254	360	0.075151	577	0.549427	794	0.955920	1011	0.999943
	144	0.000267	361	0.076301	578	0.551995	795	0.956709	1012	0.999946
	145	0.000281	362	0.077314	579	0.554991	796	0.957379	1013	0.999949
	146	0.000294	363	0.078502	580	0.557613	797	0.958127	1014	0.999952
	147	0.000309	364	0.079570	581	0.560530	798	0.958771	1015	0.999955
	148	0.000324	365	0.080766	582	0.563087	799	0.959523	1016	0.999958
	149	0.000340	366	0.081819	583	0.566072	800	0.960159	1017	0.999961
	150	0.000355	367	0.083054	584	0.568680	801	0.960869	1018	0.999963
	151	0.000373	368	0.084163	585	0.571586	802	0.961482	1019	0.999965
	152	0.000390	369	0.085410	586	0.574128	803	0.962198	1020	0.999967
	153	0.000409	370	0.086502	587	0.577105	804	0.962801	1021	0.999970

Table 1: Exact null distribution of MN, for  $n = 5, \dots, 17$  (continued)

$n$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$
	154	0.000427	371	0.087787	588	0.579698	805	0.963477	1022	0.999971
	155	0.000447	372	0.088941	589	0.582583	806	0.964060	1023	0.999974
	156	0.000467	373	0.090228	590	0.585119	807	0.964738	1024	0.999975
	157	0.000489	374	0.091364	591	0.588074	808	0.965311	1025	0.999977
	158	0.000509	375	0.092701	592	0.590651	809	0.965953	1026	0.999978
	159	0.000533	376	0.093893	593	0.593528	810	0.966504	1027	0.999980
	160	0.000555	377	0.095236	594	0.596043	811	0.967148	1028	0.999981
	161	0.000581	378	0.096414	595	0.598983	812	0.967692	1029	0.999983
	162	0.000605	379	0.097792	596	0.601547	813	0.968298	1030	0.999984
	163	0.000631	380	0.099034	597	0.604396	814	0.968821	1031	0.999985
	164	0.000657	381	0.100420	598	0.606898	815	0.969432	1032	0.999986
	165	0.000687	382	0.101639	599	0.609820	816	0.969945	1033	0.999987
	166	0.000713	383	0.103075	600	0.612365	817	0.970521	1034	0.999988
	167	0.000744	384	0.104356	601	0.615199	818	0.971016	1035	0.999989
	168	0.000774	385	0.105795	602	0.617682	819	0.971593	1036	0.999990
	169	0.000807	386	0.107057	603	0.620579	820	0.972078	1037	0.999991
	170	0.000838	387	0.108540	604	0.623102	821	0.972623	1038	0.999991
	171	0.000873	388	0.109869	605	0.625913	822	0.973089	1039	0.999992
	172	0.000906	389	0.111354	606	0.628375	823	0.973636	1040	0.999993
	173	0.000944	390	0.112663	607	0.631250	824	0.974094	1041	0.999993
	174	0.000979	391	0.114196	608	0.633754	825	0.974608	1042	0.999994
	175	0.001019	392	0.115567	609	0.636541	826	0.975049	1043	0.999994
	176	0.001056	393	0.117107	610	0.638982	827	0.975564	1044	0.999995
	177	0.001100	394	0.118454	611	0.641832	828	0.975996	1045	0.999995
	178	0.001138	395	0.120040	612	0.644313	829	0.976480	1046	0.999996
	179	0.001183	396	0.121459	613	0.647070	830	0.976896	1047	0.999996
	180	0.001227	397	0.123041	614	0.649490	831	0.977381	1048	0.999996
	181	0.001274	398	0.124436	615	0.652312	832	0.977788	1049	0.999997
	182	0.001318	399	0.126075	616	0.654764	833	0.978246	1050	0.999997
	183	0.001369	400	0.127534	617	0.657501	834	0.978636	1051	0.999997
	184	0.001417	401	0.129175	618	0.659892	835	0.979094	1052	0.999998
	185	0.001471	402	0.130613	619	0.662682	836	0.979478	1053	0.999998
	186	0.001520	403	0.132297	620	0.665111	837	0.979906	1054	0.999998
	187	0.001577	404	0.133807	621	0.667808	838	0.980274	1055	0.999998
	188	0.001631	405	0.135493	622	0.670176	839	0.980705	1056	0.999998
	189	0.001692	406	0.136973	623	0.672940	840	0.981064	1057	0.999999
	190	0.001746	407	0.138716	624	0.675336	841	0.981468	1058	0.999999
	191	0.001810	408	0.140267	625	0.678009	842	0.981813	1059	0.999999
	192	0.001870	409	0.142004	626	0.680349	843	0.982217	1060	0.999999
	193	0.001938	410	0.143531	627	0.683074	844	0.982554	1061	0.999999
	194	0.001998	411	0.145321	628	0.685444	845	0.982933	1062	0.999999
	195	0.002069	412	0.146919	629	0.688082	846	0.983256	1063	0.999999

Table 1: Exact null distribution of MN, for  $n = 5, \dots, 17$  (continued)

$n$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$
	196	0.002136	413	0.148706	630	0.690393	847	0.983635	1064	0.999999
	197	0.002211	414	0.150276	631	0.693086	848	0.983951	1065	0.999999
	198	0.002279	415	0.152120	632	0.695424	849	0.984306	1066	1.000000
	199	0.002358	416	0.153761	633	0.698028	850	0.984609	1067	1.000000
	200	0.002431	417	0.155602	634	0.700305	851	0.984964	1068	1.000000
	201	0.002515	418	0.157213	635	0.702965	852	0.985259	1069	1.000000
	202	0.002590	419	0.159108	636	0.705271	853	0.985592	1070	1.000000
	203	0.002677	420	0.160800	637	0.707836	854	0.985875	1071	1.000000
	204	0.002759	421	0.162682	638	0.710087	855	0.986206	1072	1.000000
	205	0.002851	422	0.164342	639	0.712706	856	0.986482	1073	1.000000
	206	0.002933	423	0.166289	640	0.714978	857	0.986794	1074	1.000000
	207	0.003030	424	0.168017	641	0.717513	858	0.987057	1075	1.000000
	208	0.003120	425	0.169959	642	0.719725	859	0.987367	1076	1.000000
	209	0.003221	426	0.171660	643	0.722306	860	0.987624	1077	1.000000
	210	0.003313	427	0.173653	644	0.724547	861	0.987914	1078	1.000000
	211	0.003418	428	0.175434	645	0.727035	862	0.988160	1079	1.000000
	212	0.003518	429	0.177418	646	0.729216	863	0.988449	1080	1.000000
	213	0.003629	430	0.179162	647	0.731761	864	0.988688	1081	1.000000
	214	0.003729	431	0.181213	648	0.733959	865	0.988959	1082	1.000000
	215	0.003846	432	0.183032	649	0.736411	866	0.989188	1083	1.000000
	216	0.003955	433	0.185069	650	0.738556	867	0.989456	1084	1.000000
	217	0.004077	434	0.186857	651	0.741053	868	0.989679	1085	1.000000
	218	0.004187	435	0.188954	652	0.743218	869	0.989931	1086	1.000000
	219	0.004315	436	0.190818	653	0.745629	870	0.990143	1087	1.000000
	220	0.004434	437	0.192902	654	0.747736	871	0.990394	1088	1.000000
	221	0.004568	438	0.194733	655	0.750194	872	0.990601	1089	1.000000
	222	0.004688	439	0.196878	656	0.752321	873	0.990834	1090	1.000000
	223	0.004828	440	0.198785	657	0.754687	874	0.991031	1091	1.000000
	224	0.004957	441	0.200920	658	0.756757	875	0.991263	1092	1.000000
	225	0.005105	442	0.202789	659	0.759172	876	0.991454	1093	1.000000
	226	0.005235	443	0.204985	660	0.761259	877	0.991671	1094	1.000000
	227	0.005388	444	0.206937	661	0.763579	878	0.991854	1095	1.000000
	228	0.005530	445	0.209114	662	0.765614	879	0.992069	1096	1.000000
	229	0.005689	446	0.211027	663	0.767982	880	0.992246	1097	1.000000
	230	0.005831	447	0.213273	664	0.770028	881	0.992447	1098	1.000000
	231	0.005999	448	0.215261	665	0.772312	882	0.992615	1099	1.000000
	232	0.006152	449	0.217492	666	0.774303	883	0.992814	1100	1.000000
	233	0.006326	450	0.219446	667	0.776626	884	0.992978	1101	1.000000
	234	0.006481	451	0.221734	668	0.778635	885	0.993163	1103	1.000000
	235	0.006662	452	0.223771	669	0.780865	886	0.993319	1105	1.000000
	236	0.006829	453	0.226040	670	0.782820	887	0.993503		

Table 1: Exact null distribution of MN, for  $n = 5, \dots, 17$  (continued)

$n$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$
	237	0.007018	454	0.228032	671	0.785098	888	0.993653		
16	15	0.000000	287	0.005541	552	0.222137	817	0.795875	1082	0.995321
	18	0.000000	288	0.005660	553	0.224080	818	0.797469	1083	0.995435
	21	0.000000	289	0.005797	554	0.225764	819	0.799301	1084	0.995530
	23	0.000000	290	0.005916	555	0.227719	820	0.800916	1085	0.995639
	24	0.000000	291	0.006056	556	0.229457	821	0.802724	1086	0.995729
	26	0.000000	292	0.006183	557	0.231434	822	0.804287	1087	0.995834
	27	0.000000	293	0.006330	558	0.233147	823	0.806084	1088	0.995923
	29	0.000000	294	0.006458	559	0.235135	824	0.807668	1089	0.996024
	30	0.000000	295	0.006608	560	0.236901	825	0.809440	1090	0.996107
	31	0.000000	296	0.006744	561	0.238912	826	0.810973	1091	0.996205
	32	0.000000	297	0.006901	562	0.240653	827	0.812734	1092	0.996287
	33	0.000000	298	0.007039	563	0.242669	828	0.814288	1093	0.996381
	34	0.000000	299	0.007199	564	0.244468	829	0.816024	1094	0.996458
	35	0.000000	300	0.007344	565	0.246510	830	0.817525	1095	0.996548
	36	0.000000	301	0.007514	566	0.248275	831	0.819253	1096	0.996625
	37	0.000000	302	0.007660	567	0.250329	832	0.820774	1097	0.996711
	38	0.000000	303	0.007832	568	0.252153	833	0.822473	1098	0.996782
	39	0.000000	304	0.007988	569	0.254223	834	0.823945	1099	0.996866
	40	0.000000	305	0.008167	570	0.256020	835	0.825635	1100	0.996936
	41	0.000000	306	0.008325	571	0.258101	836	0.827123	1101	0.997016
	42	0.000000	307	0.008508	572	0.259950	837	0.828789	1102	0.997082
	43	0.000000	308	0.008674	573	0.262056	838	0.830227	1103	0.997159
	44	0.000000	309	0.008867	574	0.263876	839	0.831883	1104	0.997224
	45	0.000000	310	0.009034	575	0.265986	840	0.833341	1105	0.997298
	46	0.000000	311	0.009230	576	0.267867	841	0.834968	1106	0.997358
	47	0.000000	312	0.009407	577	0.269998	842	0.836377	1107	0.997430
	48	0.000000	313	0.009612	578	0.271844	843	0.837995	1108	0.997489
	49	0.000000	314	0.009791	579	0.273986	844	0.839419	1109	0.997557
	50	0.000000	315	0.009999	580	0.275888	845	0.841012	1110	0.997613
	51	0.000000	316	0.010188	581	0.278049	846	0.842388	1111	0.997679
	52	0.000000	317	0.010406	582	0.279922	847	0.843971	1112	0.997733
	53	0.000000	318	0.010596	583	0.282092	848	0.845363	1113	0.997796
	54	0.000000	319	0.010819	584	0.284021	849	0.846919	1114	0.997847
	55	0.000000	320	0.011019	585	0.286211	850	0.848264	1115	0.997907
	56	0.000000	321	0.011251	586	0.288108	851	0.849808	1116	0.997958
	57	0.000000	322	0.011454	587	0.290302	852	0.851169	1117	0.998015
	58	0.000000	323	0.011690	588	0.292257	853	0.852688	1118	0.998062
	59	0.000000	324	0.011903	589	0.294474	854	0.854000	1119	0.998117
	60	0.000000	325	0.012150	590	0.296390	855	0.855511	1120	0.998163
	61	0.000000	326	0.012365	591	0.298619	856	0.856838	1121	0.998216
	62	0.000000	327	0.012616	592	0.300596	857	0.858320	1122	0.998259

Table 1: Exact null distribution of MN, for  $n = 5, \dots, 17$  (continued)

$n$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$
	63	0.000000	328	0.012842	593	0.302836	858	0.859602	1123	0.998310
	64	0.000000	329	0.013104	594	0.304781	859	0.861073	1124	0.998352
	65	0.000000	330	0.013332	595	0.307029	860	0.862368	1125	0.998400
	66	0.000000	331	0.013598	596	0.309028	861	0.863815	1126	0.998439
	67	0.000000	332	0.013837	597	0.311299	862	0.865064	1127	0.998485
	68	0.000000	333	0.014116	598	0.313261	863	0.866500	1128	0.998524
	69	0.000000	334	0.014358	599	0.315537	864	0.867763	1129	0.998568
	70	0.000000	335	0.014639	600	0.317561	865	0.869172	1130	0.998604
	71	0.000000	336	0.014894	601	0.319851	866	0.870390	1131	0.998646
	72	0.000000	337	0.015188	602	0.321836	867	0.871789	1132	0.998681
	73	0.000000	338	0.015443	603	0.324137	868	0.873018	1133	0.998721
	74	0.000000	339	0.015742	604	0.326179	869	0.874391	1134	0.998753
	75	0.000000	340	0.016011	605	0.328494	870	0.875577	1135	0.998792
	76	0.000000	341	0.016323	606	0.330500	871	0.876941	1136	0.998824
	77	0.000000	342	0.016593	607	0.332824	872	0.878138	1137	0.998860
	78	0.000000	343	0.016909	608	0.334885	873	0.879475	1138	0.998890
	79	0.000000	344	0.017193	609	0.337225	874	0.880629	1139	0.998925
	80	0.000000	345	0.017522	610	0.339250	875	0.881955	1140	0.998954
	81	0.000000	346	0.017809	611	0.341592	876	0.883120	1141	0.998987
	82	0.000000	347	0.018142	612	0.343675	877	0.884421	1142	0.999014
	83	0.000000	348	0.018442	613	0.346034	878	0.885543	1143	0.999045
	84	0.000000	349	0.018790	614	0.348075	879	0.886834	1144	0.999071
	85	0.000000	350	0.019091	615	0.350444	880	0.887967	1145	0.999102
	86	0.000001	351	0.019444	616	0.352545	881	0.889232	1146	0.999126
	87	0.000001	352	0.019761	617	0.354922	882	0.890324	1147	0.999155
	88	0.000001	353	0.020126	618	0.356985	883	0.891577	1148	0.999178
	89	0.000001	354	0.020446	619	0.359369	884	0.892678	1149	0.999205
	90	0.000001	355	0.020817	620	0.361485	885	0.893908	1150	0.999227
	91	0.000001	356	0.021150	621	0.363887	886	0.894968	1151	0.999253
	92	0.000001	357	0.021537	622	0.365962	887	0.896187	1152	0.999274
	93	0.000001	358	0.021872	623	0.368366	888	0.897256	1153	0.999299
	94	0.000001	359	0.022263	624	0.370503	889	0.898449	1154	0.999319
	95	0.000001	360	0.022615	625	0.372917	890	0.899479	1155	0.999342
	96	0.000001	361	0.023022	626	0.375009	891	0.900661	1156	0.999361
	97	0.000002	362	0.023374	627	0.377432	892	0.901699	1157	0.999383
	98	0.000002	363	0.023786	628	0.379582	893	0.902857	1158	0.999401
	99	0.000002	364	0.024156	629	0.382014	894	0.903856	1159	0.999422
	100	0.000002	365	0.024583	630	0.384122	895	0.905004	1160	0.999439
	101	0.000002	366	0.024955	631	0.386561	896	0.906011	1161	0.999459
	102	0.000002	367	0.025388	632	0.388724	897	0.907134	1162	0.999475
	103	0.000003	368	0.025777	633	0.391173	898	0.908102	1163	0.999494
	104	0.000003	369	0.026226	634	0.393294	899	0.909215	1164	0.999509



Table 1: Exact null distribution of MN, for  $n = 5, \dots, 17$  (continued)

$n$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$
	105	0.000003	370	0.026616	635	0.395744	900	0.910190	1165	0.999527
	106	0.000003	371	0.027070	636	0.397924	901	0.911279	1166	0.999541
	107	0.000004	372	0.027479	637	0.400386	902	0.912216	1167	0.999558
	108	0.000004	373	0.027952	638	0.402517	903	0.913296	1168	0.999571
	109	0.000004	374	0.028360	639	0.404988	904	0.914240	1169	0.999587
	110	0.000005	375	0.028838	640	0.407177	905	0.915295	1170	0.999600
	111	0.000005	376	0.029267	641	0.409650	906	0.916203	1171	0.999615
	112	0.000005	377	0.029760	642	0.411797	907	0.917247	1172	0.999627
	113	0.000006	378	0.030190	643	0.414275	908	0.918161	1173	0.999641
	114	0.000006	379	0.030691	644	0.416473	909	0.919182	1174	0.999652
	115	0.000007	380	0.031139	645	0.418963	910	0.920061	1175	0.999666
	116	0.000007	381	0.031659	646	0.421116	911	0.921072	1176	0.999677
	117	0.000008	382	0.032108	647	0.423607	912	0.921956	1177	0.999689
	118	0.000008	383	0.032632	648	0.425820	913	0.922943	1178	0.999699
	119	0.000009	384	0.033104	649	0.428315	914	0.923793	1179	0.999711
	120	0.000009	385	0.033646	650	0.430479	915	0.924770	1180	0.999721
	121	0.000010	386	0.034117	651	0.432982	916	0.925625	1181	0.999732
	122	0.000011	387	0.034666	652	0.435199	917	0.926580	1182	0.999740
	123	0.000012	388	0.035159	653	0.437706	918	0.927401	1183	0.999751
	124	0.000012	389	0.035726	654	0.439878	919	0.928345	1184	0.999759
	125	0.000013	390	0.036219	655	0.442389	920	0.929171	1185	0.999769
	126	0.000014	391	0.036794	656	0.444615	921	0.930093	1186	0.999777
	127	0.000015	392	0.037309	657	0.447131	922	0.930885	1187	0.999786
	128	0.000016	393	0.037902	658	0.449310	923	0.931797	1188	0.999794
	129	0.000017	394	0.038418	659	0.451825	924	0.932594	1189	0.999802
	130	0.000018	395	0.039016	660	0.454061	925	0.933484	1190	0.999809
	131	0.000019	396	0.039555	661	0.456582	926	0.934249	1191	0.999817
	132	0.000020	397	0.040176	662	0.458764	927	0.935129	1192	0.999824
	133	0.000022	398	0.040712	663	0.461291	928	0.935898	1193	0.999831
	134	0.000023	399	0.041340	664	0.463529	929	0.936756	1194	0.999837
	135	0.000024	400	0.041903	665	0.466053	930	0.937494	1195	0.999845
	136	0.000026	401	0.042548	666	0.468246	931	0.938342	1196	0.999850
	137	0.000028	402	0.043110	667	0.470773	932	0.939083	1197	0.999857
	138	0.000029	403	0.043764	668	0.473014	933	0.939910	1198	0.999862
	139	0.000031	404	0.044349	669	0.475547	934	0.940621	1199	0.999868
	140	0.000033	405	0.045025	670	0.477738	935	0.941438	1200	0.999873
	141	0.000035	406	0.045610	671	0.480271	936	0.942152	1201	0.999879
	142	0.000037	407	0.046290	672	0.482518	937	0.942949	1202	0.999883
	143	0.000039	408	0.046902	673	0.485049	938	0.943633	1203	0.999889
	144	0.000041	409	0.047605	674	0.487244	939	0.944420	1204	0.999893
	145	0.000043	410	0.048213	675	0.489780	940	0.945107	1205	0.999898
	146	0.000045	411	0.048925	676	0.492025	941	0.945874	1206	0.999902

Table 1: Exact null distribution of MN, for  $n = 5, \dots, 17$  (continued)

$n$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$
	147	0.000048	412	0.049561	677	0.494559	942	0.946533	1207	0.999907
	148	0.000050	413	0.050292	678	0.496756	943	0.947290	1208	0.999910
	149	0.000053	414	0.050927	679	0.499292	944	0.947951	1209	0.999915
	150	0.000056	415	0.051667	680	0.501539	945	0.948689	1210	0.999918
	151	0.000059	416	0.052328	681	0.504074	946	0.949322	1211	0.999922
	152	0.000062	417	0.053090	682	0.506270	947	0.950050	1212	0.999925
	153	0.000066	418	0.053750	683	0.508803	948	0.950685	1213	0.999929
	154	0.000069	419	0.054518	684	0.511051	949	0.951394	1214	0.999932
	155	0.000072	420	0.055206	685	0.513584	950	0.952001	1215	0.999935
	156	0.000076	421	0.055999	686	0.515776	951	0.952702	1216	0.999938
	157	0.000080	422	0.056683	687	0.518313	952	0.953311	1217	0.999941
	158	0.000084	423	0.057484	688	0.520558	953	0.953992	1218	0.999944
	159	0.000088	424	0.058200	689	0.523086	954	0.954575	1219	0.999947
	160	0.000092	425	0.059020	690	0.525281	955	0.955247	1220	0.999949
	161	0.000097	426	0.059734	691	0.527810	956	0.955832	1221	0.999952
	162	0.000101	427	0.060563	692	0.530051	957	0.956485	1222	0.999954
	163	0.000106	428	0.061304	693	0.532580	958	0.957045	1223	0.999956
	164	0.000111	429	0.062160	694	0.534767	959	0.957690	1224	0.999958
	165	0.000117	430	0.062898	695	0.537293	960	0.958251	1225	0.999960
	166	0.000122	431	0.063759	696	0.539533	961	0.958877	1226	0.999962
	167	0.000128	432	0.064531	697	0.542052	962	0.959413	1227	0.999964
	168	0.000133	433	0.065416	698	0.544236	963	0.960031	1228	0.999966
	169	0.000140	434	0.066182	699	0.546757	964	0.960568	1229	0.999968
	170	0.000146	435	0.067076	700	0.548989	965	0.961168	1230	0.999969
	171	0.000153	436	0.067875	701	0.551502	966	0.961682	1231	0.999971
	172	0.000159	437	0.068792	702	0.553681	967	0.962274	1232	0.999972
	173	0.000167	438	0.069586	703	0.556195	968	0.962788	1233	0.999974
	174	0.000173	439	0.070513	704	0.558420	969	0.963363	1234	0.999975
	175	0.000181	440	0.071340	705	0.560927	970	0.963854	1235	0.999977
	176	0.000189	441	0.072291	706	0.563098	971	0.964421	1236	0.999978
	177	0.000197	442	0.073114	707	0.565601	972	0.964913	1237	0.999979
	178	0.000205	443	0.074071	708	0.567820	973	0.965462	1238	0.999980
	179	0.000214	444	0.074929	709	0.570316	974	0.965932	1239	0.999981
	180	0.000223	445	0.075913	710	0.572477	975	0.966474	1240	0.999982
	181	0.000233	446	0.076763	711	0.574976	976	0.966944	1241	0.999984
	182	0.000242	447	0.077756	712	0.577185	977	0.967470	1242	0.999984
	183	0.000252	448	0.078644	713	0.579668	978	0.967919	1243	0.999985
	184	0.000262	449	0.079658	714	0.581825	979	0.968436	1244	0.999986
	185	0.000273	450	0.080541	715	0.584307	980	0.968885	1245	0.999987
	186	0.000283	451	0.081566	716	0.586505	981	0.969387	1246	0.999988
	187	0.000295	452	0.082481	717	0.588981	982	0.969815	1247	0.999989
	188	0.000306	453	0.083534	718	0.591123	983	0.970309	1248	0.999989

Table 1: Exact null distribution of MN, for  $n = 5, \dots, 17$  (continued)

$n$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$
	189	0.000319	454	0.084444	719	0.593596	984	0.970738	1249	0.999990
	190	0.000331	455	0.085503	720	0.595786	985	0.971216	1250	0.999990
	191	0.000344	456	0.086452	721	0.598245	986	0.971625	1251	0.999991
	192	0.000357	457	0.087536	722	0.600377	987	0.972096	1252	0.999992
	193	0.000372	458	0.088476	723	0.602837	988	0.972504	1253	0.999992
	194	0.000385	459	0.089571	724	0.605013	989	0.972961	1254	0.999993
	195	0.000400	460	0.090549	725	0.607459	990	0.973350	1255	0.999993
	196	0.000414	461	0.091669	726	0.609579	991	0.973800	1256	0.999994
	197	0.000431	462	0.092639	727	0.612023	992	0.974188	1257	0.999994
	198	0.000445	463	0.093770	728	0.614185	993	0.974623	1258	0.999994
	199	0.000463	464	0.094778	729	0.616617	994	0.974994	1259	0.999995
	200	0.000479	465	0.095934	730	0.618724	995	0.975422	1260	0.999995
	201	0.000497	466	0.096935	731	0.621149	996	0.975792	1261	0.999996
	202	0.000514	467	0.098098	732	0.623299	997	0.976206	1262	0.999996
	203	0.000533	468	0.099139	733	0.625713	998	0.976558	1263	0.999996
	204	0.000551	469	0.100332	734	0.627803	999	0.976965	1264	0.999996
	205	0.000572	470	0.101360	735	0.630217	1000	0.977317	1265	0.999997
	206	0.000591	471	0.102563	736	0.632349	1001	0.977711	1266	0.999997
	207	0.000612	472	0.103635	737	0.634744	1002	0.978046	1267	0.999997
	208	0.000633	473	0.104859	738	0.636822	1003	0.978432	1268	0.999997
	209	0.000656	474	0.105924	739	0.639213	1004	0.978767	1269	0.999998
	210	0.000677	475	0.107160	740	0.641327	1005	0.979141	1270	0.999998
	211	0.000701	476	0.108261	741	0.643706	1006	0.979459	1271	0.999998
	212	0.000723	477	0.109527	742	0.645764	1007	0.979826	1272	0.999998
	213	0.000749	478	0.110619	743	0.648138	1008	0.980143	1273	0.999998
	214	0.000773	479	0.111891	744	0.650239	1009	0.980498	1274	0.999998
	215	0.000799	480	0.113028	745	0.652594	1010	0.980800	1275	0.999999
	216	0.000824	481	0.114327	746	0.654636	1011	0.981149	1276	0.999999
	217	0.000853	482	0.115451	747	0.656989	1012	0.981449	1277	0.999999
	218	0.000879	483	0.116760	748	0.659068	1013	0.981786	1278	0.999999
	219	0.000909	484	0.117928	749	0.661404	1014	0.982072	1279	0.999999
	220	0.000937	485	0.119262	750	0.663428	1015	0.982402	1280	0.999999
	221	0.000969	486	0.120419	751	0.665760	1016	0.982687	1281	0.999999
	222	0.000997	487	0.121765	752	0.667820	1017	0.983006	1282	0.999999
	223	0.001031	488	0.122965	753	0.670134	1018	0.983277	1283	0.999999
	224	0.001061	489	0.124338	754	0.672139	1019	0.983590	1284	0.999999
	225	0.001097	490	0.125526	755	0.674445	1020	0.983859	1285	0.999999
	226	0.001128	491	0.126906	756	0.676488	1021	0.984161	1286	0.999999
	227	0.001165	492	0.128139	757	0.678778	1022	0.984417	1287	1.000000
	228	0.001199	493	0.129549	758	0.680760	1023	0.984713	1288	1.000000
	229	0.001238	494	0.130766	759	0.683048	1024	0.984968	1289	1.000000
	230	0.001273	495	0.132187	760	0.685066	1025	0.985253	1290	1.000000

Table 1: Exact null distribution of MN, for  $n = 5, \dots, 17$  (continued)

$n$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$
	231	0.001313	496	0.133453	761	0.687331	1026	0.985495	1291	1.000000
	232	0.001351	497	0.134896	762	0.689296	1027	0.985775	1292	1.000000
	233	0.001394	498	0.136149	763	0.691554	1028	0.986015	1293	1.000000
	234	0.001432	499	0.137604	764	0.693551	1029	0.986285	1294	1.000000
	235	0.001477	500	0.138900	765	0.695793	1030	0.986514	1295	1.000000
	236	0.001517	501	0.140386	766	0.697732	1031	0.986778	1296	1.000000
	237	0.001565	502	0.141668	767	0.699967	1032	0.987005	1297	1.000000
	238	0.001607	503	0.143159	768	0.701943	1033	0.987260	1298	1.000000
	239	0.001656	504	0.144491	769	0.704156	1034	0.987475	1299	1.000000
	240	0.001701	505	0.146009	770	0.706074	1035	0.987724	1300	1.000000
	241	0.001753	506	0.147323	771	0.708282	1036	0.987938	1301	1.000000
	242	0.001799	507	0.148853	772	0.710231	1037	0.988178	1302	1.000000
	243	0.001853	508	0.150216	773	0.712418	1038	0.988381	1303	1.000000
	244	0.001902	509	0.151771	774	0.714313	1039	0.988616	1304	1.000000
	245	0.001959	510	0.153118	775	0.716494	1040	0.988817	1305	1.000000
	246	0.002009	511	0.154685	776	0.718420	1041	0.989043	1306	1.000000
	247	0.002068	512	0.156079	777	0.720580	1042	0.989234	1307	1.000000
	248	0.002121	513	0.157672	778	0.722450	1043	0.989455	1308	1.000000
	249	0.002184	514	0.159051	779	0.724601	1044	0.989644	1309	1.000000
	250	0.002239	515	0.160651	780	0.726503	1045	0.989857	1310	1.000000
	251	0.002302	516	0.162080	781	0.728633	1046	0.990036	1311	1.000000
	252	0.002361	517	0.163709	782	0.730477	1047	0.990244	1312	1.000000
	253	0.002429	518	0.165117	783	0.732602	1048	0.990422	1313	1.000000
	254	0.002489	519	0.166759	784	0.734477	1049	0.990622	1314	1.000000
	255	0.002558	520	0.168219	785	0.736577	1050	0.990790	1315	1.000000
	256	0.002622	521	0.169882	786	0.738398	1051	0.990985	1316	1.000000
	257	0.002696	522	0.171326	787	0.740490	1052	0.991152	1317	1.000000
	258	0.002761	523	0.173000	788	0.742338	1053	0.991340	1318	1.000000
	259	0.002837	524	0.174490	789	0.744410	1054	0.991497	1319	1.000000
	260	0.002905	525	0.176194	790	0.746202	1055	0.991681	1320	1.000000
	261	0.002986	526	0.177666	791	0.748266	1056	0.991837	1321	1.000000
	262	0.003057	527	0.179376	792	0.750088	1057	0.992013	1322	1.000000
	263	0.003139	528	0.180903	793	0.752126	1058	0.992161	1323	1.000000
	264	0.003214	529	0.182639	794	0.753892	1059	0.992332	1324	1.000000
	265	0.003301	530	0.184141	795	0.755925	1060	0.992478	1325	1.000000
	266	0.003377	531	0.185890	796	0.757717	1061	0.992643	1326	1.000000
	267	0.003466	532	0.187445	797	0.759725	1062	0.992782	1327	1.000000
	268	0.003547	533	0.189218	798	0.761464	1063	0.992942	1328	1.000000
	269	0.003642	534	0.190753	799	0.763464	1064	0.993079	1329	1.000000
	270	0.003724	535	0.192536	800	0.765228	1065	0.993233	1330	1.000000
	271	0.003821	536	0.194122	801	0.767204	1066	0.993362	1331	1.000000
	272	0.003909	537	0.195931	802	0.768915	1067	0.993513	1332	1.000000

Table 1: Exact null distribution of MN, for  $n = 5, \dots, 17$  (continued)

$n$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$
	273	0.004010	538	0.197497	803	0.770881	1068	0.993640	1333	1.000000
	274	0.004100	539	0.199312	804	0.772617	1069	0.993785	1334	1.000000
	275	0.004204	540	0.200932	805	0.774560	1070	0.993905	1335	1.000000
	276	0.004298	541	0.202776	806	0.776241	1071	0.994045	1336	1.000000
	277	0.004409	542	0.204368	807	0.778177	1072	0.994164	1337	1.000000
	278	0.004505	543	0.206224	808	0.779883	1073	0.994299	1338	1.000000
	279	0.004617	544	0.207873	809	0.781792	1074	0.994411	1339	1.000000
	280	0.004719	545	0.209747	810	0.783446	1075	0.994542	1340	1.000000
	281	0.004838	546	0.211375	811	0.785346	1076	0.994653	1341	1.000000
	282	0.004942	547	0.213261	812	0.787021	1077	0.994778	1342	1.000000
	283	0.005063	548	0.214937	813	0.788898	1078	0.994883	1343	1.000000
	284	0.005172	549	0.216852	814	0.790521	1079	0.995005	1345	1.000000
	285	0.005300	550	0.218505	815	0.792388	1080	0.995108		
	286	0.005412	551	0.220425	816	0.794035	1081	0.995224		
17	16	0.000000	342	0.004246	661	0.213242	980	0.801883	1299	0.996318
	19	0.000000	343	0.004335	662	0.214671	981	0.803429	1300	0.996386
	22	0.000000	344	0.004416	663	0.216277	982	0.804780	1301	0.996463
	24	0.000000	345	0.004510	664	0.217733	983	0.806300	1302	0.996527
	25	0.000000	346	0.004594	665	0.219373	984	0.807660	1303	0.996602
	27	0.000000	347	0.004689	666	0.220824	985	0.809181	1304	0.996665
	28	0.000000	348	0.004776	667	0.222457	986	0.810508	1305	0.996737
	30	0.000000	349	0.004875	668	0.223932	987	0.812004	1306	0.996798
	31	0.000000	350	0.004965	669	0.225598	988	0.813340	1307	0.996867
	32	0.000000	351	0.005065	670	0.227072	989	0.814833	1308	0.996927
	33	0.000000	352	0.005158	671	0.228726	990	0.816138	1309	0.996994
	34	0.000000	353	0.005264	672	0.230224	991	0.817608	1310	0.997051
	35	0.000000	354	0.005359	673	0.231916	992	0.818921	1311	0.997116
	36	0.000000	355	0.005466	674	0.233408	993	0.820389	1312	0.997171
	37	0.000000	356	0.005565	675	0.235088	994	0.821671	1313	0.997234
	38	0.000000	357	0.005677	676	0.236609	995	0.823113	1314	0.997287
	39	0.000000	358	0.005779	677	0.238322	996	0.824403	1315	0.997348
	40	0.000000	359	0.005892	678	0.239837	997	0.825845	1316	0.997399
	41	0.000000	360	0.005997	679	0.241540	998	0.827102	1317	0.997458
	42	0.000000	361	0.006116	680	0.243080	999	0.828520	1318	0.997507
	43	0.000000	362	0.006224	681	0.244818	1000	0.829786	1319	0.997564
	44	0.000000	363	0.006345	682	0.246354	1001	0.831200	1320	0.997612
	45	0.000000	364	0.006456	683	0.248080	1002	0.832435	1321	0.997667
	46	0.000000	365	0.006582	684	0.249641	1003	0.833827	1322	0.997712
	47	0.000000	366	0.006697	685	0.251403	1004	0.835068	1323	0.997765
	48	0.000000	367	0.006825	686	0.252957	1005	0.836457	1324	0.997810
	49	0.000000	368	0.006943	687	0.254705	1006	0.837669	1325	0.997861
	50	0.000000	369	0.007077	688	0.256288	1007	0.839032	1326	0.997904

Table 1: Exact null distribution of MN, for  $n = 5, \dots, 17$  (continued)

$n$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$
	51	0.000000	370	0.007198	689	0.258071	1008	0.840251	1327	0.997953
	52	0.000000	371	0.007334	690	0.259645	1009	0.841613	1328	0.997994
	53	0.000000	372	0.007458	691	0.261418	1010	0.842800	1329	0.998042
	54	0.000000	373	0.007601	692	0.263019	1011	0.844139	1330	0.998081
	55	0.000000	374	0.007729	693	0.264824	1012	0.845333	1331	0.998127
	56	0.000000	375	0.007872	694	0.266420	1013	0.846667	1332	0.998166
	57	0.000000	376	0.008005	695	0.268211	1014	0.847831	1333	0.998210
	58	0.000000	377	0.008155	696	0.269833	1015	0.849144	1334	0.998246
	59	0.000000	378	0.008290	697	0.271662	1016	0.850313	1335	0.998289
	60	0.000000	379	0.008443	698	0.273274	1017	0.851621	1336	0.998325
	61	0.000000	380	0.008582	699	0.275088	1018	0.852762	1337	0.998366
	62	0.000000	381	0.008741	700	0.276730	1019	0.854046	1338	0.998399
	63	0.000000	382	0.008885	701	0.278577	1020	0.855193	1339	0.998439
	64	0.000000	383	0.009045	702	0.280209	1021	0.856474	1340	0.998472
	65	0.000000	384	0.009193	703	0.282045	1022	0.857591	1341	0.998510
	66	0.000000	385	0.009361	704	0.283703	1023	0.858849	1342	0.998541
	67	0.000000	386	0.009512	705	0.285573	1024	0.859972	1343	0.998578
	68	0.000000	387	0.009682	706	0.287223	1025	0.861225	1344	0.998608
	69	0.000000	388	0.009838	707	0.289078	1026	0.862318	1345	0.998644
	70	0.000000	389	0.010015	708	0.290755	1027	0.863551	1346	0.998673
	71	0.000000	390	0.010175	709	0.292646	1028	0.864648	1347	0.998706
	72	0.000000	391	0.010354	710	0.294313	1029	0.865876	1348	0.998735
	73	0.000000	392	0.010518	711	0.296187	1030	0.866945	1349	0.998767
	74	0.000000	393	0.010705	712	0.297883	1031	0.868150	1350	0.998794
	75	0.000000	394	0.010874	713	0.299791	1032	0.869224	1351	0.998825
	76	0.000000	395	0.011063	714	0.301475	1033	0.870425	1352	0.998851
	77	0.000000	396	0.011236	715	0.303372	1034	0.871470	1353	0.998881
	78	0.000000	397	0.011433	716	0.305082	1035	0.872649	1354	0.998906
	79	0.000000	398	0.011610	717	0.307011	1036	0.873700	1355	0.998934
	80	0.000000	399	0.011809	718	0.308713	1037	0.874873	1356	0.998958
	81	0.000000	400	0.011992	719	0.310624	1038	0.875895	1357	0.998986
	82	0.000000	401	0.012199	720	0.312353	1039	0.877048	1358	0.999009
	83	0.000000	402	0.012386	721	0.314301	1040	0.878073	1359	0.999035
	84	0.000000	403	0.012596	722	0.316017	1041	0.879220	1360	0.999057
	85	0.000000	404	0.012787	723	0.317948	1042	0.880219	1361	0.999083
	86	0.000000	405	0.013006	724	0.319694	1043	0.881345	1362	0.999104
	87	0.000000	406	0.013202	725	0.321657	1044	0.882347	1363	0.999128
	88	0.000000	407	0.013422	726	0.323390	1045	0.883468	1364	0.999148
	89	0.000000	408	0.013624	727	0.325339	1046	0.884442	1365	0.999172
	90	0.000000	409	0.013854	728	0.327098	1047	0.885542	1366	0.999191
	91	0.000000	410	0.014060	729	0.329080	1048	0.886521	1367	0.999213
	92	0.000000	411	0.014292	730	0.330829	1049	0.887614	1368	0.999232

Table 1: Exact null distribution of MN, for  $n = 5, \dots, 17$  (continued)

$n$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$
	93	0.000000	412	0.014504	731	0.332793	1050	0.888566	1369	0.999253
	94	0.000000	413	0.014745	732	0.334568	1051	0.889640	1370	0.999271
	95	0.000000	414	0.014962	733	0.336568	1052	0.890595	1371	0.999291
	96	0.000000	415	0.015205	734	0.338328	1053	0.891662	1372	0.999308
	97	0.000000	416	0.015428	735	0.340310	1054	0.892591	1373	0.999328
	98	0.000000	417	0.015681	736	0.342100	1055	0.893638	1374	0.999344
	99	0.000000	418	0.015908	737	0.344113	1056	0.894570	1375	0.999363
	100	0.000000	419	0.016164	738	0.345889	1057	0.895611	1376	0.999378
	101	0.000000	420	0.016397	739	0.347888	1058	0.896516	1377	0.999396
	102	0.000000	421	0.016663	740	0.349689	1059	0.897538	1378	0.999411
	103	0.000000	422	0.016901	741	0.351718	1060	0.898447	1379	0.999428
	104	0.000000	423	0.017169	742	0.353509	1061	0.899461	1380	0.999442
	105	0.000000	424	0.017414	743	0.355518	1062	0.900344	1381	0.999459
	106	0.000000	425	0.017693	744	0.357335	1063	0.901340	1382	0.999472
	107	0.000000	426	0.017942	745	0.359380	1064	0.902225	1383	0.999488
	108	0.000000	427	0.018223	746	0.361180	1065	0.903214	1384	0.999501
	109	0.000000	428	0.018479	747	0.363207	1066	0.904074	1385	0.999516
	110	0.000000	429	0.018771	748	0.365036	1067	0.905044	1386	0.999528
	111	0.000001	430	0.019033	749	0.367093	1068	0.905906	1387	0.999542
	112	0.000001	431	0.019326	750	0.368906	1069	0.906870	1388	0.999554
	113	0.000001	432	0.019595	751	0.370946	1070	0.907707	1389	0.999568
	114	0.000001	433	0.019901	752	0.372786	1071	0.908651	1390	0.999579
	115	0.000001	434	0.020174	753	0.374857	1072	0.909491	1391	0.999592
	116	0.000001	435	0.020481	754	0.376682	1073	0.910429	1392	0.999602
	117	0.000001	436	0.020763	755	0.378733	1074	0.911244	1393	0.999615
	118	0.000001	437	0.021082	756	0.380584	1075	0.912164	1394	0.999625
	119	0.000001	438	0.021368	757	0.382669	1076	0.912980	1395	0.999637
	120	0.000001	439	0.021690	758	0.384503	1077	0.913893	1396	0.999646
	121	0.000001	440	0.021984	759	0.386566	1078	0.914686	1397	0.999657
	122	0.000001	441	0.022317	760	0.388430	1079	0.915580	1398	0.999666
	123	0.000001	442	0.022617	761	0.390523	1080	0.916375	1399	0.999677
	124	0.000001	443	0.022953	762	0.392368	1081	0.917263	1400	0.999686
	125	0.000002	444	0.023259	763	0.394445	1082	0.918033	1401	0.999696
	126	0.000002	445	0.023609	764	0.396315	1083	0.918904	1402	0.999704
	127	0.000002	446	0.023921	765	0.398421	1084	0.919676	1403	0.999714
	128	0.000002	447	0.024271	766	0.400276	1085	0.920539	1404	0.999722
	129	0.000002	448	0.024592	767	0.402360	1086	0.921288	1405	0.999731
	130	0.000002	449	0.024957	768	0.404241	1087	0.922134	1406	0.999738
	131	0.000002	450	0.025282	769	0.406358	1088	0.922884	1407	0.999747
	132	0.000003	451	0.025649	770	0.408219	1089	0.923723	1408	0.999754
	133	0.000003	452	0.025983	771	0.410315	1090	0.924450	1409	0.999763
	134	0.000003	453	0.026363	772	0.412205	1091	0.925272	1410	0.999769

Table 1: Exact null distribution of MN, for  $n = 5, \dots, 17$  (continued)

$n$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$
	135	0.000003	454	0.026703	773	0.414328	1092	0.926000	1411	0.999777
	136	0.000003	455	0.027085	774	0.416199	1093	0.926815	1412	0.999783
	137	0.000004	456	0.027433	775	0.418304	1094	0.927521	1413	0.999791
	138	0.000004	457	0.027830	776	0.420200	1095	0.928319	1414	0.999797
	139	0.000004	458	0.028184	777	0.422334	1096	0.929026	1415	0.999804
	140	0.000004	459	0.028582	778	0.424212	1097	0.929816	1416	0.999810
	141	0.000005	460	0.028946	779	0.426323	1098	0.930502	1417	0.999816
	142	0.000005	461	0.029358	780	0.428228	1099	0.931276	1418	0.999822
	143	0.000005	462	0.029727	781	0.430369	1100	0.931962	1419	0.999828
	144	0.000006	463	0.030142	782	0.432253	1101	0.932729	1420	0.999833
	145	0.000006	464	0.030520	783	0.434372	1102	0.933394	1421	0.999839
	146	0.000006	465	0.030950	784	0.436284	1103	0.934145	1422	0.999844
	147	0.000007	466	0.031334	785	0.438430	1104	0.934810	1423	0.999850
	148	0.000007	467	0.031766	786	0.440319	1105	0.935554	1424	0.999854
	149	0.000007	468	0.032159	787	0.442447	1106	0.936199	1425	0.999859
	150	0.000008	469	0.032607	788	0.444362	1107	0.936927	1426	0.999864
	151	0.000008	470	0.033007	789	0.446515	1108	0.937572	1427	0.999869
	152	0.000009	471	0.033455	790	0.448411	1109	0.938292	1428	0.999873
	153	0.000009	472	0.033865	791	0.450540	1110	0.938917	1429	0.999878
	154	0.000010	473	0.034330	792	0.452462	1111	0.939622	1430	0.999881
	155	0.000010	474	0.034745	793	0.454622	1112	0.940246	1431	0.999886
	156	0.000011	475	0.035213	794	0.456519	1113	0.940945	1432	0.999889
	157	0.000012	476	0.035638	795	0.458656	1114	0.941550	1433	0.999894
	158	0.000012	477	0.036121	796	0.460582	1115	0.942233	1434	0.999897
	159	0.000013	478	0.036554	797	0.462743	1116	0.942837	1435	0.999901
	160	0.000013	479	0.037038	798	0.464646	1117	0.943514	1436	0.999904
	161	0.000014	480	0.037480	799	0.466787	1118	0.944099	1437	0.999908
	162	0.000015	481	0.037983	800	0.468715	1119	0.944760	1438	0.999911
	163	0.000016	482	0.038431	801	0.470881	1120	0.945345	1439	0.999915
	164	0.000017	483	0.038935	802	0.472787	1121	0.945999	1440	0.999917
	165	0.000017	484	0.039394	803	0.474929	1122	0.946565	1441	0.999921
	166	0.000018	485	0.039915	804	0.476860	1123	0.947205	1442	0.999923
	167	0.000019	486	0.040380	805	0.479030	1124	0.947771	1443	0.999926
	168	0.000020	487	0.040904	806	0.480936	1125	0.948404	1444	0.999929
	169	0.000021	488	0.041380	807	0.483082	1126	0.948951	1445	0.999932
	170	0.000022	489	0.041920	808	0.485016	1127	0.949569	1446	0.999934
	171	0.000024	490	0.042403	809	0.487185	1128	0.950116	1447	0.999937
	172	0.000025	491	0.042945	810	0.489094	1129	0.950728	1448	0.999939
	173	0.000026	492	0.043439	811	0.491243	1130	0.951257	1449	0.999942
	174	0.000027	493	0.044001	812	0.493175	1131	0.951855	1450	0.999944
	175	0.000028	494	0.044501	813	0.495347	1132	0.952383	1451	0.999946
	176	0.000030	495	0.045062	814	0.497257	1133	0.952973	1452	0.999948



Table 1: Exact null distribution of MN, for  $n = 5, \dots, 17$  (continued)

$n$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$
	177	0.000031	496	0.045575	815	0.499403	1134	0.953484	1453	0.999950
	178	0.000033	497	0.046156	816	0.501338	1135	0.954062	1454	0.999952
	179	0.000034	498	0.046673	817	0.503511	1136	0.954572	1455	0.999954
	180	0.000036	499	0.047257	818	0.505418	1137	0.955142	1456	0.999956
	181	0.000037	500	0.047787	819	0.507567	1138	0.955635	1457	0.999958
	182	0.000039	501	0.048388	820	0.509501	1139	0.956193	1458	0.999959
	183	0.000041	502	0.048925	821	0.511670	1140	0.956685	1459	0.999961
	184	0.000043	503	0.049528	822	0.513579	1141	0.957236	1460	0.999962
	185	0.000045	504	0.050077	823	0.515726	1142	0.957711	1461	0.999964
	186	0.000047	505	0.050701	824	0.517658	1143	0.958249	1462	0.999965
	187	0.000049	506	0.051255	825	0.519827	1144	0.958723	1463	0.999967
	188	0.000051	507	0.051879	826	0.521734	1145	0.959254	1464	0.999968
	189	0.000053	508	0.052448	827	0.523878	1146	0.959713	1465	0.999970
	190	0.000055	509	0.053092	828	0.525808	1147	0.960231	1466	0.999971
	191	0.000058	510	0.053666	829	0.527976	1148	0.960688	1467	0.999972
	192	0.000060	511	0.054312	830	0.529879	1149	0.961201	1468	0.999973
	193	0.000063	512	0.054899	831	0.532020	1150	0.961642	1469	0.999975
	194	0.000065	513	0.055565	832	0.533949	1151	0.962142	1470	0.999976
	195	0.000068	514	0.056159	833	0.536111	1152	0.962583	1471	0.999977
	196	0.000071	515	0.056826	834	0.538012	1153	0.963076	1472	0.999978
	197	0.000074	516	0.057433	835	0.540152	1154	0.963501	1473	0.999979
	198	0.000077	517	0.058122	836	0.542075	1155	0.963982	1474	0.999980
	199	0.000080	518	0.058735	837	0.544234	1156	0.964407	1475	0.999981
	200	0.000083	519	0.059424	838	0.546132	1157	0.964881	1476	0.999982
	201	0.000087	520	0.060052	839	0.548265	1158	0.965291	1477	0.999982
	202	0.000090	521	0.060763	840	0.550185	1159	0.965754	1478	0.999983
	203	0.000094	522	0.061395	841	0.552340	1160	0.966162	1479	0.999984
	204	0.000097	523	0.062108	842	0.554231	1161	0.966619	1480	0.999985
	205	0.000101	524	0.062755	843	0.556361	1162	0.967013	1481	0.999986
	206	0.000105	525	0.063489	844	0.558277	1163	0.967458	1482	0.999986
	207	0.000109	526	0.064143	845	0.560424	1164	0.967851	1483	0.999987
	208	0.000113	527	0.064877	846	0.562311	1165	0.968290	1484	0.999987
	209	0.000118	528	0.065545	847	0.564435	1166	0.968669	1485	0.999988
	210	0.000122	529	0.066304	848	0.566343	1167	0.969097	1486	0.999989
	211	0.000127	530	0.066977	849	0.568485	1168	0.969474	1487	0.999989
	212	0.000131	531	0.067734	850	0.570367	1169	0.969897	1488	0.999990
	213	0.000137	532	0.068424	851	0.572482	1170	0.970260	1489	0.999990
	214	0.000141	533	0.069205	852	0.574385	1171	0.970672	1490	0.999991
	215	0.000147	534	0.069900	853	0.576520	1172	0.971034	1491	0.999991
	216	0.000152	535	0.070681	854	0.578393	1173	0.971440	1492	0.999992
	217	0.000158	536	0.071391	855	0.580501	1174	0.971789	1493	0.999992
	218	0.000163	537	0.072196	856	0.582398	1175	0.972184	1494	0.999993

Table 1: Exact null distribution of MN, for  $n = 5, \dots, 17$  (continued)

$n$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$
	219	0.000169	538	0.072913	857	0.584523	1176	0.972532	1495	0.999993
	220	0.000175	539	0.073717	858	0.586389	1177	0.972922	1496	0.999993
	221	0.000182	540	0.074448	859	0.588491	1178	0.973256	1497	0.999994
	222	0.000188	541	0.075279	860	0.590377	1179	0.973636	1498	0.999994
	223	0.000195	542	0.076016	861	0.592494	1180	0.973969	1499	0.999994
	224	0.000201	543	0.076844	862	0.594353	1181	0.974343	1500	0.999995
	225	0.000208	544	0.077598	863	0.596442	1182	0.974664	1501	0.999995
	226	0.000215	545	0.078452	864	0.598322	1183	0.975028	1502	0.999995
	227	0.000223	546	0.079210	865	0.600430	1184	0.975348	1503	0.999996
	228	0.000230	547	0.080065	866	0.602278	1185	0.975706	1504	0.999996
	229	0.000238	548	0.080840	867	0.604360	1186	0.976014	1505	0.999996
	230	0.000246	549	0.081718	868	0.606231	1187	0.976362	1506	0.999996
	231	0.000254	550	0.082500	869	0.608325	1188	0.976669	1507	0.999996
	232	0.000263	551	0.083377	870	0.610166	1189	0.977012	1508	0.999997
	233	0.000272	552	0.084174	871	0.612236	1190	0.977306	1509	0.999997
	234	0.000280	553	0.085079	872	0.614096	1191	0.977641	1510	0.999997
	235	0.000290	554	0.085881	873	0.616181	1192	0.977934	1511	0.999997
	236	0.000299	555	0.086784	874	0.618011	1193	0.978262	1512	0.999997
	237	0.000309	556	0.087605	875	0.620068	1194	0.978545	1513	0.999998
	238	0.000318	557	0.088533	876	0.621918	1195	0.978865	1514	0.999998
	239	0.000329	558	0.089359	877	0.623992	1196	0.979145	1515	0.999998
	240	0.000339	559	0.090287	878	0.625809	1197	0.979459	1516	0.999998
	241	0.000350	560	0.091129	879	0.627855	1198	0.979729	1517	0.999998
	242	0.000361	561	0.092084	880	0.629695	1199	0.980035	1518	0.999998
	243	0.000373	562	0.092932	881	0.631753	1200	0.980303	1519	0.999998
	244	0.000384	563	0.093885	882	0.633560	1201	0.980604	1520	0.999998
	245	0.000396	564	0.094751	883	0.635595	1202	0.980862	1521	0.999999
	246	0.000408	565	0.095732	884	0.637420	1203	0.981154	1522	0.999999
	247	0.000421	566	0.096602	885	0.639466	1204	0.981410	1523	0.999999
	248	0.000433	567	0.097580	886	0.641262	1205	0.981698	1524	0.999999
	249	0.000447	568	0.098470	887	0.643280	1206	0.981944	1525	0.999999
	250	0.000460	569	0.099476	888	0.645094	1207	0.982224	1526	0.999999
	251	0.000474	570	0.100369	889	0.647127	1208	0.982468	1527	0.999999
	252	0.000488	571	0.101375	890	0.648907	1209	0.982743	1528	0.999999
	253	0.000503	572	0.102286	891	0.650913	1210	0.982978	1529	0.999999
	254	0.000517	573	0.103318	892	0.652714	1211	0.983244	1530	0.999999
	255	0.000533	574	0.104236	893	0.654729	1212	0.983478	1531	0.999999
	256	0.000548	575	0.105265	894	0.656498	1213	0.983740	1532	0.999999
	257	0.000565	576	0.106200	895	0.658489	1214	0.983964	1533	0.999999
	258	0.000580	577	0.107261	896	0.660275	1215	0.984218	1534	0.999999
	259	0.000598	578	0.108199	897	0.662276	1216	0.984441	1535	0.999999
	260	0.000614	579	0.109256	898	0.664031	1217	0.984691	1536	1.000000

Table 1: Exact null distribution of MN, for  $n = 5, \dots, 17$  (continued)

$n$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$
	261	0.000632	580	0.110216	899	0.666004	1218	0.984904	1537	1.000000
	262	0.000650	581	0.111300	900	0.667776	1219	0.985147	1538	1.000000
	263	0.000669	582	0.112263	901	0.669762	1220	0.985359	1539	1.000000
	264	0.000686	583	0.113347	902	0.671501	1221	0.985597	1540	1.000000
	265	0.000707	584	0.114329	903	0.673458	1222	0.985800	1541	1.000000
	266	0.000725	585	0.115441	904	0.675217	1223	0.986032	1542	1.000000
	267	0.000746	586	0.116428	905	0.677183	1224	0.986233	1543	1.000000
	268	0.000766	587	0.117536	906	0.678907	1225	0.986460	1544	1.000000
	269	0.000788	588	0.118542	907	0.680850	1226	0.986654	1545	1.000000
	270	0.000809	589	0.119682	908	0.682589	1227	0.986874	1546	1.000000
	271	0.000831	590	0.120692	909	0.684540	1228	0.987066	1547	1.000000
	272	0.000853	591	0.121826	910	0.686249	1229	0.987282	1548	1.000000
	273	0.000877	592	0.122858	911	0.688171	1230	0.987466	1549	1.000000
	274	0.000899	593	0.124023	912	0.689897	1231	0.987675	1550	1.000000
	275	0.000924	594	0.125056	913	0.691829	1232	0.987858	1551	1.000000
	276	0.000948	595	0.126220	914	0.693520	1233	0.988063	1552	1.000000
	277	0.000974	596	0.127273	915	0.695426	1234	0.988238	1553	1.000000
	278	0.000998	597	0.128465	916	0.697135	1235	0.988437	1554	1.000000
	279	0.001026	598	0.129524	917	0.699046	1236	0.988610	1555	1.000000
	280	0.001051	599	0.130711	918	0.700723	1237	0.988806	1556	1.000000
	281	0.001080	600	0.131789	919	0.702609	1238	0.988972	1557	1.000000
	282	0.001106	601	0.133010	920	0.704300	1239	0.989161	1558	1.000000
	283	0.001136	602	0.134090	921	0.706193	1240	0.989325	1559	1.000000
	284	0.001163	603	0.135305	922	0.707852	1241	0.989510	1560	1.000000
	285	0.001195	604	0.136409	923	0.709717	1242	0.989668	1561	1.000000
	286	0.001223	605	0.137654	924	0.711391	1243	0.989848	1562	1.000000
	287	0.001256	606	0.138759	925	0.713265	1244	0.990004	1563	1.000000
	288	0.001285	607	0.140002	926	0.714905	1245	0.990179	1564	1.000000
	289	0.001320	608	0.141127	927	0.716751	1246	0.990329	1565	1.000000
	290	0.001351	609	0.142401	928	0.718407	1247	0.990499	1566	1.000000
	291	0.001386	610	0.143530	929	0.720259	1248	0.990647	1567	1.000000
	292	0.001418	611	0.144798	930	0.721881	1249	0.990814	1568	1.000000
	293	0.001455	612	0.145948	931	0.723708	1250	0.990955	1569	1.000000
	294	0.001488	613	0.147250	932	0.725344	1251	0.991116	1570	1.000000
	295	0.001526	614	0.148402	933	0.727175	1252	0.991256	1571	1.000000
	296	0.001561	615	0.149696	934	0.728779	1253	0.991414	1572	1.000000
	297	0.001601	616	0.150872	935	0.730583	1254	0.991548	1573	1.000000
	298	0.001638	617	0.152199	936	0.732201	1255	0.991701	1574	1.000000
	299	0.001679	618	0.153374	937	0.734012	1256	0.991833	1575	1.000000
	300	0.001716	619	0.154698	938	0.735595	1257	0.991983	1576	1.000000
	301	0.001759	620	0.155895	939	0.737379	1258	0.992110	1577	1.000000
	302	0.001799	621	0.157250	940	0.738977	1259	0.992254	1578	1.000000

Table 1: Exact null distribution of MN, for  $n = 5, \dots, 17$  (continued)

$n$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$	$x$	$P(X \leq x)$
	303	0.001843	622	0.158451	941	0.740764	1260	0.992379	1579	1.000000
	304	0.001884	623	0.159798	942	0.742329	1261	0.992521	1580	1.000000
	305	0.001930	624	0.161020	943	0.744091	1262	0.992640	1581	1.000000
	306	0.001973	625	0.162403	944	0.745668	1263	0.992777	1582	1.000000
	307	0.002020	626	0.163625	945	0.747434	1264	0.992895	1583	1.000000
	308	0.002064	627	0.165000	946	0.748979	1265	0.993029	1584	1.000000
	309	0.002114	628	0.166247	947	0.750718	1266	0.993142	1585	1.000000
	310	0.002160	629	0.167655	948	0.752275	1267	0.993271	1586	1.000000
	311	0.002211	630	0.168902	949	0.754018	1268	0.993383	1587	1.000000
	312	0.002259	631	0.170304	950	0.755542	1269	0.993509	1588	1.000000
	313	0.002313	632	0.171573	951	0.757258	1270	0.993615	1589	1.000000
	314	0.002362	633	0.173008	952	0.758796	1271	0.993737	1590	1.000000
	315	0.002417	634	0.174279	953	0.760514	1272	0.993843	1591	1.000000
	316	0.002468	635	0.175706	954	0.762018	1273	0.993961	1592	1.000000
	317	0.002526	636	0.177000	955	0.763712	1274	0.994062	1593	1.000000
	318	0.002579	637	0.178462	956	0.765226	1275	0.994177	1594	1.000000
	319	0.002638	638	0.179755	957	0.766922	1276	0.994276	1595	1.000000
	320	0.002692	639	0.181208	958	0.768405	1277	0.994388	1596	1.000000
	321	0.002755	640	0.182527	959	0.770073	1278	0.994483	1597	1.000000
	322	0.002811	641	0.184014	960	0.771568	1279	0.994591	1598	1.000000
	323	0.002875	642	0.185330	961	0.773240	1280	0.994684	1599	1.000000
	324	0.002933	643	0.186812	962	0.774700	1281	0.994790	1600	1.000000
	325	0.003000	644	0.188151	963	0.776346	1282	0.994879	1601	1.000000
	326	0.003061	645	0.189665	964	0.777818	1283	0.994981	1602	1.000000
	327	0.003129	646	0.191006	965	0.779464	1284	0.995068	1603	1.000000
	328	0.003192	647	0.192510	966	0.780904	1285	0.995168	1604	1.000000
	329	0.003263	648	0.193874	967	0.782526	1286	0.995251	1605	1.000000
	330	0.003328	649	0.195416	968	0.783975	1287	0.995347	1606	1.000000
	331	0.003401	650	0.196777	969	0.785598	1288	0.995430	1607	1.000000
	332	0.003468	651	0.198308	970	0.787016	1289	0.995523	1608	1.000000
	333	0.003545	652	0.199696	971	0.788612	1290	0.995602	1609	1.000000
	334	0.003614	653	0.201261	972	0.790040	1291	0.995692	1610	1.000000
	335	0.003692	654	0.202646	973	0.791637	1292	0.995769	1611	1.000000
	336	0.003764	655	0.204203	974	0.793032	1293	0.995857	1613	1.000000
	337	0.003846	656	0.205612	975	0.794604	1294	0.995930	1615	1.000000
	338	0.003920	657	0.207203	976	0.796010	1295	0.996015		
	339	0.004003	658	0.208611	977	0.797580	1296	0.996087		
	340	0.004080	659	0.210192	978	0.798954	1297	0.996170		
	341	0.004167	660	0.211624	979	0.800501	1298	0.996239		

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