

THREE-DIMENSIONAL MODELS OF PARTITIONS OF BIPARTITE NUMBERS

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Let $P(n, m; k)$ denote the number of partitions of the bipartite number (n, m) into exactly k positive bipartite numbers. Then tables are given for $n \leq m \leq 50$ and k such that for the given n, m the function $P(n, m; k)$ is the largest. The corresponding values of this P and $\ln P$ are also given.

In 1966, M. S. Cheema at the University of Arizona, computed a table giving the number $P(n, m; k)$ of partitions of the bipartite number (n, m) into exactly k positive bipartite numbers, for values of $n, m \leq 50$. By a positive or non-degenerate bipartite number we shall mean the numbers (a, b) with a and b both positive integers. For example, the partitions of $(5, 3)$ into such parts are :

$(5, 3);$
 $(4, 2) + (1, 1), (3, 2) + (2, 1), (2, 2) + (3, 1), (1, 2) + (4, 1);$
 $(3, 1) + (1, 1) + (1, 1), (2, 1) + (2, 1) + (1, 1).$

As in ordinary partitions the order in which the summands are written is immaterial. Thus $(5, 3)$ has one partition with one summand, four partitions with two summands and two with three summands. Since $P(n, m; k) = P(m, n; k)$, there is no loss of generality in assuming that $n \leq m$ and this we do.

As in the case of partitions of unipartite numbers, it was observed that for any given sufficiently large integers n, m the function $P(n, m; k)$, $k = 1, 2, 3, \dots, m$ first increased and then decreased. The conjecture of Auluck-Chowla and Gupta thus appeared to hold even in the case of partitions of multipartite numbers.

Here we give for each $n, m \leq 50$, the value of the least k for which $P(n, m; k)$ is the largest. The tables give also the corresponding value of $P(n, m; k)$, and the natural logarithm of this value.

The values of n, m are arranged so that the values for which $n + m$ is the same are together. Thus we go from $n + m = 2$ to $n + m = 100$.

In 1967, again at Tucson the points (n, m, k) were plotted in three-dimensional space and a model was obtained. The result looked interesting. Two photographs

of this model (Figs. 1 and 2) appear at the end of this paper. More recently in 1970, a model was built with

$$x = n, \quad y = m, \quad z = \ln P(n, m; k)$$

with k such that $P(n, m; k)$ is the largest for the given n, m . The points appear to lie on an elliptic half cone. Two photographs of this model (Figs. 3 and 4) appear at the end of this paper.

Cheema's tables from which all the values are taken, are still unpublished.

TABLE

m	n	k	P	$\ln P$	m	n	k	P	$\ln P$
1	1	1	1	0.0000	11	1	1	1	0.0000
2	1	1	1	0.0000	10	2	2	5	1.6094
3	1	1	1	0.0000	9	3	2	8	2.0794
2	2	1	1	0.0000	8	4	3	12	2.4849
4	1	1	1	0.0000	7	5	3	18	2.8904
3	2	1	1	0.0000	6	6	3	19	2.9445
5	1	1	1	0.0000	12	1	1	1	0.0000
4	2	2	2	0.6931	11	2	2	5	1.6094
3	3	2	2	0.6931	10	3	2	9	2.1972
6	1	1	1	0.0000	9	4	3	16	2.7726
5	2	2	2	0.6931	8	5	3	24	3.1781
4	3	2	3	1.0986	7	6	3	28	3.3322
7	1	1	1	0.0000	13	1	1	1	0.0000
6	2	2	3	1.0986	12	2	2	6	1.7918
5	3	2	4	1.3863	11	3	2	10	2.3026
4	4	2	5	1.6094	10	4	3	20	2.9957
8	1	1	1	0.0000	9	5	3	32	3.4658
7	2	2	3	1.0986	8	6	3	38	3.6376
6	3	2	5	1.6094	7	7	3	42	3.7377
5	4	2	6	1.7918	14	1	1	1	0.0000
9	1	1	1	0.0000	13	2	2	6	1.7918
8	2	2	4	1.3863	12	3	3	12	2.4849
7	3	2	6	1.7918	11	4	3	25	3.2188
6	4	2	8	2.0794	10	5	3	40	3.6888
5	5	2	8	2.0794	9	6	3	51	3.9318
10	1	1	1	0.0000	8	7	3	57	4.0431
9	2	2	4	1.3863	15	1	1	1	0.0000
8	3	2	7	1.9459	14	2	2	7	1.9459
7	4	2	9	2.1972	13	3	3	14	2.6390
6	5	3	12	2.4849	12	4	3	30	3.4012

(contd.)

TABLE (contd.)

m	n	k	P	$\ln P$	m	n	k	P	$\ln P$
11	5	3	50	3.9120	20	1	1	1	0.0000
10	6	3	64	4.1589	19	2	2	9	2.1972
9	7	3	76	4.3307	18	3	3	27	3.2959
8	8	3	78	4.3567	17	4	3	64	4.1589
16	1	1	1	0.0000	16	5	3	112	4.7185
15	2	2	7	1.9459	15	6	4	195	5.2730
14	3	3	16	2.7726	14	7	4	295	5.6870
13	4	3	36	3.5836	13	8	4	391	5.9687
12	5	3	60	4.0944	12	9	4	462	6.1356
11	6	3	80	4.3820	11	10	4	503	6.2206
10	7	3	96	4.5644	21	1	1	1	0.0000
9	8	4	110	4.7005	20	2	2	10	2.3026
17	1	1	1	0.0000	19	3	3	30	3.4012
16	2	2	8	2.0794	18	4	3	72	4.2767
15	3	3	19	2.9445	17	5	3	128	4.8521
14	4	3	42	3.7377	16	6	4	242	5.4890
13	5	3	72	4.2767	15	7	4	369	5.9108
12	6	3	97	4.5747	14	8	4	503	6.2206
11	7	4	132	4.8828	13	9	4	606	6.4069
10	8	4	162	5.0876	12	10	4	683	6.5265
9	9	4	168	5.1240	11	11	4	703	6.5554
18	1	1	1	0.0000	22	1	1	1	0.0000
17	2	2	8	2.0794	21	2	2	10	2.3026
16	3	3	21	3.0445	20	3	3	33	3.4965
15	4	3	49	3.8918	19	4	3	81	4.3945
14	5	3	84	4.4308	18	5	4	147	4.9905
13	6	4	123	4.8122	17	6	4	291	5.6734
12	7	4	177	5.1762	16	7	4	456	6.1225
11	8	4	222	5.4027	15	8	4	628	6.4426
10	9	4	246	5.5054	14	9	4	778	6.6568
19	1	1	1	0.0000	13	10	4	894	6.7957
18	2	2	9	2.1972	12	11	4	953	6.8596
17	3	3	24	3.1781	23	1	1	1	0.0000
16	4	3	56	4.0254	22	2	2	11	2.3979
15	5	3	98	4.5850	21	3	3	37	3.6109
14	6	4	158	5.0626	20	4	3	90	4.4998
13	7	4	231	5.4424	19	5	4	174	5.1591
12	8	4	301	5.7071	18	6	4	351	5.8608
11	9	4	342	5.8348	17	7	4	554	6.3172
10	10	4	363	5.8944	16	8	4	780	6.6593

(contd.)

TABLE (contd.)

<i>m</i>	<i>n</i>	<i>k</i>	<i>P</i>	$\ln P$	<i>m</i>	<i>n</i>	<i>k</i>	<i>P</i>	$\ln P$
15	9	4	978	6.8855	15	12	5	3785	8.2388
14	10	4	1152	7.0493	14	13	5	4036	8.3031
13	11	5	1319	7.1845	27	1	1	1	0.0000
12	12	5	1367	7.2205	26	2	2	13	2.5650
24	1	1	1	0.0000	25	3	3	52	3.9513
23	2	2	11	2.3979	24	4	3	132	4.8828
22	3	3	40	3.6889	23	5	4	314	5.7494
21	4	3	100	4.6052	22	6	4	659	6.4908
20	5	4	204	5.3181	21	7	4	1089	6.9934
19	6	4	414	6.0259	20	8	5	1669	7.4201
18	7	4	666	6.5013	19	9	5	2549	7.8435
17	8	4	946	6.8523	18	10	5	3455	8.1477
16	9	5	1221	7.1075	17	11	5	4343	8.3764
15	10	5	1564	7.3551	16	12	5	5041	8.5254
14	11	5	1837	7.5159	15	13	5	5524	8.6169
13	12	5	1981	7.5914	14	14	5	5674	8.6437
25	1	1	1	0.0000	28	1	1	1	0.0000
24	2	2	12	2.4849	27	2	2	13	2.5650
23	3	3	44	3.7842	26	3	3	56	4.0254
22	4	3	110	4.7005	25	4	3	144	4.9698
21	5	4	237	5.4681	24	5	4	358	5.8806
20	6	4	489	6.1924	23	6	4	754	6.6254
19	7	4	792	6.6746	22	7	4	1263	7.1413
18	8	4	1142	7.0405	21	8	5	2048	7.6246
17	9	5	1588	7.3704	20	9	5	3164	8.0597
16	10	5	2071	7.6358	19	10	5	4364	8.3812
15	11	5	2503	7.8253	18	11	5	5566	8.6245
14	12	5	2771	7.9270	17	12	5	6600	8.7949
13	13	5	2879	7.9653	16	13	5	7370	8.9052
26	1	1	1	0.0000	15	14	5	7779	8.9593
25	2	2	12	2.4849	29	1	1	1	0.0000
24	3	3	48	3.8712	28	2	2	14	2.6391
23	4	3	121	4.7958	27	3	3	61	4.1109
22	5	4	274	5.6132	26	4	3	156	5.0499
21	6	4	567	6.3404	25	5	4	406	6.0064
20	7	4	933	6.8384	24	6	4	864	6.7616
19	8	4	1356	7.2123	23	7	4	1453	7.2815
18	9	5	2023	7.6124	22	8	5	2483	7.8173
17	10	5	2701	7.9015	21	9	5	3892	8.2667
16	11	5	3323	8.1087	20	10	5	5434	8.6004

(contd.)

TABLE (contd.)

m	n	k	P	$\ln P$	m	n	k	P	$\ln P$
19	11	5	7043	8.8598	28	5	4	575	6.3544
18	12	5	8479	9.0454	27	6	4	1242	7.1245
17	13	5	9664	9.1762	26	7	5	2283	7.7333
16	14	5	10400	9.2495	25	8	5	4221	8.3478
15	15	5	10681	9.2762	24	9	5	6812	8.8265
30	1	1	1	0.0000	23	10	5	9856	9.1959
29	2	2	14	2.6391	22	11	5	13222	9.4894
28	3	3	65	4.1744	21	12	6	17028	9.7426
27	4	3	169	5.1299	20	13	6	21348	9.9687
26	5	4	458	6.1269	19	14	6	25149	10.1326
25	6	4	978	6.8855	18	15	6	27953	10.2381
24	7	4	1662	7.4158	17	16	6	29447	10.2904
23	8	5	2989	8.0028	33	1	1	1	0.0000
22	9	5	4729	8.4615	32	2	2	16	2.7726
21	10	5	6697	8.8095	31	3	3	80	4.3820
20	11	5	8783	9.0806	30	4	3	210	5.3471
19	12	5	10745	9.2828	29	5	4	640	6.4615
18	13	5	12432	9.4278	28	6	4	1394	7.2401
17	14	6	13684	9.5237	27	7	5	2663	7.8872
16	15	6	14535	9.5847	26	8	5	4961	8.5094
31	1	1	1	0.0000	25	9	5	8084	8.9977
30	2	2	15	2.7081	24	10	5	11795	9.3758
29	3	3	70	4.2485	23	11	5	15993	9.6798
28	4	3	182	5.2040	22	12	6	21786	9.9892
27	5	4	514	6.2423	21	13	6	27715	10.2298
26	6	4	1108	7.0101	20	14	6	33234	10.4112
25	7	5	1949	7.5751	19	15	6	37609	10.5350
24	8	5	3563	8.1784	18	16	6	40512	10.6092
23	9	5	5704	8.6490	17	17	6	41455	10.6324
22	10	5	8158	9.0068	34	1	1	1	0.0000
21	11	5	10840	9.2911	33	2	2	16	2.7726
20	12	5	13424	9.5045	32	3	3	85	4.4427
19	13	6	16197	9.6927	31	4	3	225	5.4161
18	14	6	18745	9.8389	30	5	4	710	6.5653
17	15	6	20366	9.9217	29	6	4	1550	7.3461
16	16	6	20975	9.9514	28	7	5	3083	8.0337
32	1	1	1	0.0000	27	8	5	5799	8.6655
31	2	2	15	2.7081	26	9	5	9516	9.1607
30	3	3	75	4.3175	25	10	5	14017	9.5482
29	4	3	196	5.2781	24	11	6	19804	9.8934

(contd.)

TABLE (contd.)

m	n	k	P	$\ln P$	m	n	k	P	$\ln P$
23	12	6	27512	10.2223	20	17	6	1 02423	11.5365
22	13	6	35527	10.4780	19	18	6	1 06608	11.5769
21	14	6	43219	10.6741	37	1	1	1	0.0000
20	15	6	49780	10.8153	36	2	2	18	2.8904
19	16	6	54594	10.9076	35	3	3	102	4.6250
18	17	6	57120	10.9528	34	4	4	297	5.6938
35	1	1	1	0.0000	33	5	4	950	6.8565
34	2	2	17	2.8332	32	6	4	2105	7.6520
33	3	3	91	4.5109	31	7	5	4658	8.4464
32	4	4	249	5.5175	30	8	5	8942	9.0985
31	5	4	785	6.6657	29	9	5	14989	9.6153
30	6	4	1725	7.4530	28	10	6	23415	10.0614
29	7	5	3557	8.1767	27	11	6	36438	10.5034
28	8	5	6733	8.8148	26	12	6	52318	10.8651
27	9	5	11140	9.3182	25	13	6	69930	11.1552
26	10	5	16528	9.7129	24	14	6	88376	11.3894
25	11	6	24470	10.1052	23	15	6	1 06025	11.5712
24	12	6	34422	10.4464	22	16	6	1 21725	11.7091
23	13	6	44986	10.7142	21	17	6	1 33887	11.8048
22	14	6	55519	10.9245	20	18	6	1 41760	11.8620
21	15	6	64883	11.0802	19	19	6	1 44371	11.8803
20	16	6	72399	11.1899	38	1	1	1	0.0000
19	17	6	77136	11.2533	37	2	2	18	2.8904
18	18	6	78849	11.2752	36	3	3	108	4.6822
36	1	1	1	0.0000	35	4	4	321	5.7715
35	2	2	17	2.8332	34	5	4	1041	6.9480
34	3	3	96	4.5644	33	6	4	2310	7.7450
33	4	4	270	5.5985	32	7	5	5293	8.5742
32	5	4	865	6.7628	31	8	5	10233	9.2330
31	6	4	1905	7.5523	30	9	5	17244	9.7550
30	7	5	4077	8.3131	29	10	6	27979	10.2392
29	8	5	7782	8.9597	28	11	6	43964	10.6910
28	9	5	12952	9.4689	27	12	6	63676	11.0616
27	10	6	19441	9.8750	26	13	6	85992	11.3620
26	11	6	29984	10.3083	25	14	6	1 09767	11.6067
25	12	6	42604	10.6596	24	15	6	1 33248	11.7996
24	13	6	56372	10.9396	23	16	6	1 54806	11.9499
23	14	6	70402	11.1619	22	17	7	1 72733	12.0592
22	15	6	83459	11.3321	21	18	7	1 88687	12.1480
21	16	6	94485	11.4563	20	19	7	1 97146	12.1914

(contd.)

TABLE (contd.)

m	n	k	P	$\ln P$	m	n	k	P	$\ln P$
39	1	1	1	0.0000	41	1	1	1	0.0000
38	2	2	19	2.9445	40	2	2	20	2.9957
37	3	3	114	4.7362	39	3	3	127	4.8442
36	4	4	351	5.8608	38	4	4	411	6.0186
35	5	4	1137	7.0361	37	5	4	1347	7.2057
34	6	4	2537	7.8387	36	6	5	3045	8.0213
33	7	5	5997	8.6991	35	7	5	7605	8.9366
32	8	5	11653	9.3631	34	8	5	14937	9.6119
31	9	5	19756	9.8914	33	9	6	25632	10.1515
30	10	6	33263	10.4121	32	10	6	46168	10.7400
29	11	6	52672	10.8717	31	11	6	74225	11.2148
28	12	6	76970	11.2511	30	12	6	1 10127	11.6091
27	13	6	1 04854	11.5607	29	13	6	1 52480	11.9348
26	14	6	1 35179	11.8145	28	14	6	1 99952	12.2060
25	15	6	1 65747	12.0179	27	15	7	2 62092	12.4765
24	16	7	1 97618	12.1940	26	16	7	3 27876	12.7005
23	17	7	2 29869	12.3455	25	17	7	3 91603	12.8779
22	18	7	2 55239	12.4498	24	18	7	4 47623	13.0117
21	19	7	2 71739	12.5123	23	19	7	4 91856	13.1060
20	20	7	2 77278	12.5328	22	20	7	5 19822	13.1612
40	1	1	1	0.0000	21	21	7	5 29624	13.1798
39	2	2	19	2.9445	42	1	1	1	0.0000
38	3	3	120	4.7875	41	2	2	20	2.9957
37	4	4	378	5.9349	40	3	3	133	4.8904
36	5	4	1239	7.1220	39	4	4	441	6.0891
35	6	4	2769	7.9263	38	5	4	1461	7.2869
34	7	5	6762	8.8191	37	6	5	3396	8.1304
33	8	5	13222	9.4894	36	7	5	8517	9.0498
32	9	5	22521	10.0221	35	8	5	16821	9.7303
31	10	6	39277	10.5784	34	9	6	29769	10.3013
30	11	6	62717	11.0464	33	10	6	53951	10.8957
29	12	6	92338	11.4332	32	11	6	87370	11.3779
28	13	6	1 26900	11.7512	31	12	6	1 30485	11.7790
27	14	6	1 65006	12.0137	30	13	6	1 82044	12.1117
26	15	7	2 06983	12.2404	29	14	7	2 46577	12.4155
25	16	7	2 55966	12.4529	28	15	7	3 28800	12.7032
24	17	7	3 01785	12.6174	27	16	7	4 15924	12.9382
23	18	7	3 40320	12.7376	26	17	7	5 02469	13.1273
22	19	7	3 68267	12.8166	25	18	7	5 81787	13.2739
21	20	7	3 82896	12.8555	24	19	7	6 47943	13.3815

(contd.)

TABLE (contd.)

<i>m</i>	<i>n</i>	<i>k</i>	<i>P</i>	ln <i>P</i>	<i>m</i>	<i>n</i>	<i>k</i>	<i>P</i>	ln <i>P</i>
23	20	7	6 95332	13.4520	28	17	7	8 03477	13.5967
22	21	7	7 20102	13.4871	27	18	7	9 51254	13.7655
43	1	1	1	0.0000	26	19	7	10 85236	13.8973
42	2	2	21	3.0445	25	20	7	11 95503	13.9947
41	3	3	140	4.9417	24	21	7	12 74096	14.0577
40	4	4	478	6.1696	23	22	7	13 14943	14.0892
39	5	4	1581	7.3658	45	1	1	1	0.0000
38	6	5	3774	8.2360	44	2	2	22	3.0911
37	7	5	9516	9.1607	43	3	3	154	5.0370
36	8	5	18870	9.8454	42	4	4	551	6.3118
35	9	6	34419	10.4464	41	5	4	1841	7.5181
34	10	6	62792	11.0475	40	6	5	4626	8.4395
33	11	6	1 02301	11.5356	39	7	5	11766	9.3734
32	12	6	1 53811	11.9434	38	8	5	23532	10.0660
31	13	6	2 15996	12.2830	37	9	6	45462	10.7245
30	14	7	3 03875	12.6245	36	10	6	83884	11.3371
29	15	7	4 09142	12.9216	35	11	6	1 38280	11.8372
28	16	7	5 22710	13.1667	34	12	6	2 10355	12.2567
27	17	7	6 38403	13.3667	33	13	7	3 11496	12.6491
26	18	7	7 47667	13.5247	32	14	7	4 52071	13.0216
25	19	7	8 43350	13.6452	31	15	7	6 19130	13.3360
24	20	7	9 17326	13.7291	30	16	7	8 05442	13.5991
23	21	7	9 64553	13.7794	29	17	7	10 02741	13.8184
22	22	7	9 80476	13.7958	28	18	7	11 98824	13.9973
44	1	1	1	0.0000	27	19	7	13 82425	14.1391
43	2	2	21	3.0445	26	20	7	15 40279	14.2473
42	3	3	147	4.9905	25	21	7	16 62369	14.3235
41	4	4	511	6.2364	24	22	7	17 38970	14.3687
40	5	4	1708	7.4430	23	23	7	17 65492	14.3837
39	6	5	4185	8.3393	46	1	1	1	0.0000
38	7	5	10593	9.2677	45	2	2	22	3.0911
37	8	5	21108	9.9575	44	3	3	161	5.0814
36	9	6	39638	10.5875	43	4	4	588	6.3768
35	10	6	72707	11.1942	42	5	4	1981	7.5914
34	11	6	1 19215	11.6886	41	6	5	5104	8.5378
33	12	6	1 80287	12.1023	40	7	5	13026	9.4749
32	13	7	2 58259	12.4619	39	8	5	26166	10.1723
31	14	7	3 71902	12.8263	38	9	6	51957	10.8582
30	15	7	5 05075	13.1325	37	10	6	96341	11.4756
29	16	7	6 51457	13.3870	36	11	6	1 59719	11.9811

(contd.)

TABLE (contd.)

m	n	k	P	$\ln P$	m	n	k	P	$\ln P$
35	12	6	2 44225	12.4057	44	5	4	2282	7.7329
34	13	7	3 73492	12.8306	43	6	5	6166	8.7269
33	14	7	5 46187	13.2107	42	7	5	15856	9.6716
32	15	7	7 53722	13.5327	41	8	5	32082	10.3760
31	16	7	9 88686	13.8041	40	9	6	67161	11.1148
30	17	7	12 41335	14.0314	39	10	6	1 25747	11.7416
29	18	7	14 97933	14.2198	38	11	6	2 10535	12.2571
28	19	7	17 44182	14.3718	37	12	7	3 32120	12.7132
27	20	7	19 64227	14.4904	36	13	7	5 28607	13.1779
26	21	7	21 44059	14.5782	35	14	7	7 83639	13.5717
25	22	8	22 89822	14.6441	34	15	7	10 96714	13.9084
24	23	8	23 69154	14.6780	33	16	7	14 59986	14.1939
47	1	1	1	0.0000	32	17	7	18 61768	14.4372
46	2	2	23	3.1355	31	18	7	22 83968	14.6415
45	3	3	169	5.1299	30	19	8	27 62639	14.8318
44	4	4	632	6.4489	29	20	8	32 56216	14.9960
43	5	4	2128	7.6629	28	21	8	37 02785	15.1246
42	6	5	5615	8.6333	27	22	8	40 71152	15.2193
41	7	5	14393	9.5742	26	23	8	43 33506	15.2820
40	8	5	29007	10.2753	25	24	8	44 70037	15.3129
39	9	6	59169	10.9881	49	1	1	1	0.0000
38	10	6	1 10288	11.6108	48	2	2	24	3.1781
37	11	6	1 83721	12.1210	47	3	3	184	5.2150
36	12	6	2 82404	12.5510	46	4	4	720	6.5793
35	13	7	4 45494	13.0069	45	5	4	2443	7.8010
34	14	7	6 55990	13.3939	44	6	5	6754	8.8179
33	15	7	9 11927	13.7233	43	7	5	17436	9.7666
32	16	7	12 05233	14.0018	42	8	5	35386	10.4741
31	17	7	15 25557	14.2381	41	9	6	75989	11.2383
30	18	7	18 56503	14.4345	40	10	6	1 42949	11.8699
29	19	7	21 81655	14.5957	39	11	6	2 40376	12.3900
28	20	8	25 17066	14.7385	38	12	7	3 89840	12.8734
27	21	8	28 28885	14.8554	37	13	7	6 24322	13.3444
26	22	8	30 71874	14.9379	36	14	7	9 31228	13.7442
25	23	8	32 25345	14.9864	35	15	7	13 11775	14.0870
24	24	8	32 78477	15.0028	34	16	7	17 57912	14.3797
48	1	1	1	0.0000	33	17	7	22 57661	14.6300
47	2	2	23	3.1355	32	18	8	28 35665	14.8579
46	3	3	176	5.1705	31	19	8	35 05491	15.0697
45	4	4	672	6.5103	30	20	8	41 73999	15.2444

(contd.)

TABLE (contd.)

<i>m</i>	<i>n</i>	<i>k</i>	<i>P</i>	$\ln P$	<i>m</i>	<i>n</i>	<i>k</i>	<i>P</i>	$\ln P$
29	21	8	47 97591	15.3837	40	12	7	5 30560	13.1817
28	22	8	53 36709	15.4902	39	13	7	8 59222	13.6637
27	23	8	57 51673	15.5650	38	14	7	12 96454	14.0749
26	24	8	60 14439	15.6096	37	15	7	18 47870	14.4296
25	25	8	61 03521	15.6244	36	16	7	25 06971	14.7345
50	1	1	1	0.0000	35	17	8	33 46211	15.0233
49	2	2	24	3.1781	34	18	8	43 84427	15.2934
48	3	3	192	5.2575	33	19	8	55 14419	15.5228
47	4	4	764	6.6386	32	20	8	66 86617	15.7157
46	5	4	2612	7.8680	31	21	8	78 36250	15.8743
45	6	5	7386	8.9074	30	22	8	88 99250	16.0015
44	7	5	19123	9.8584	29	23	8	98 07315	16.0986
43	8	6	39138	10.5748	28	24	8	105 04364	16.1669
42	9	6	85728	11.3590	27	25	8	109 41355	16.2081
41	10	6	1 61920	11.9947	26	26	8	110 91375	16.2212
40	11	6	2 73517	12.5190	50	3	3	208	5.3376
39	12	7	4 55719	13.0295	49	4	4	864	6.7616
38	13	7	7 33944	13.5061	48	5	4	2972	7.9971
37	14	7	11 01339	13.9117	47	6	5	8778	9.0800
36	15	7	15 60690	14.2608	46	7	5	22870	10.0376
35	16	7	21 04911	14.5597	45	8	6	48963	10.7987
34	17	8	27 21826	14.8168	44	9	6	1 08181	11.5918
33	18	8	35 37981	15.0791	43	10	6	2 05967	12.2356
32	19	8	44 13117	15.3001	42	11	6	3 50726	12.7677
31	20	8	53 04017	15.4839	41	12	7	6 15405	13.3300
30	21	8	61 58381	15.6333	40	13	7	10 01715	13.8174
29	22	8	69 23917	15.7505	39	14	7	15 19612	14.2342
28	23	8	75 49543	15.8370	38	15	7	21 77573	14.5939
27	24	8	79 93021	15.8941	37	16	7	29 71157	14.9044
26	25	8	82 22825	15.9225	36	17	8	40 89387	15.2238
50	2	2	25	3.2189	35	18	8	53 98011	15.5015
49	3	3	200	5.2983	34	19	8	68 43020	15.7387
48	4	4	816	6.7044	33	20	8	83 65969	15.9397
47	5	4	2788	7.9332	32	21	8	98 91028	16.1071
46	6	5	8058	8.9945	31	22	8	113 37214	16.2438
45	7	5	20938	9.9495	30	23	8	126 19671	16.3508
44	8	6	43847	10.6885	29	24	8	136 61050	16.4300
43	9	6	96430	11.4765	28	25	8	143 94889	16.4820
42	10	6	1 82917	12.1167	27	26	8	147 74406	16.5082
41	11	6	3 10199	12.6449	50	4	4	920	6.8244

(contd.)

TABLE (contd.)

m	n	k	P	$\ln P$	m	n	k	P	$\ln P$
49	5	4	3164	8.0597	33	22	8	179 64193	16.7037
48	6	5	9542	9.1635	32	23	8	203 58180	16.8290
47	7	5	24942	10.1242	31	24	8	224 64649	16.9273
46	8	6	54582	10.9074	30	25	8	241 63296	17.0001
45	9	6	1 21045	11.7035	29	26	8	253 55839	17.0487
44	10	6	2 31352	12.3518	28	27	8	259 70447	17.0725
43	11	7	3 99189	12.8972	50	6	5	11222	9.3253
42	12	7	7 11194	13.4747	49	7	5	29494	10.2918
41	13	7	11 63443	13.9665	48	8	6	67320	11.1172
40	14	7	17 73761	14.3889	47	9	6	1 50438	11.9210
39	15	7	25 54999	14.7536	46	10	6	2 89534	12.5760
38	16	8	35 74804	15.0895	45	11	7	5 22880	13.1671
37	17	8	49 69308	15.4187	44	12	7	9 40319	13.7539
36	18	8	66 06162	15.7035	43	13	7	15 52436	14.2551
35	19	8	84 36238	15.9480	42	14	7	23 89078	14.6864
34	20	8	103 94420	16.1563	41	15	7	34 74234	15.0609
33	21	8	123 89941	16.3323	40	16	8	51 31817	15.4510
32	22	8	143 26127	16.4779	39	17	8	72 23655	15.7930
31	23	8	160 94616	16.5936	38	18	8	97 28209	16.0905
30	24	8	175 97191	16.6834	37	19	8	125 92564	16.3484
29	25	8	187 40513	16.7462	36	20	8	157 36879	16.5718
28	26	8	194 57877	16.7839	35	21	8	190 40582	16.7620
27	27	8	197 00943	16.7961	34	22	8	223 66407	16.9232
50	5	4	3364	8.1209	33	23	8	255 52830	17.0562
49	6	5	10358	9.2456	32	24	8	284 42103	17.1633
48	7	5	27142	10.2087	31	25	9	312 43528	17.2572
47	8	6	60666	11.0132	30	26	9	334 16810	17.3247
46	9	6	1 35106	11.8137	29	27	9	347 85028	17.3648
45	10	6	2 59105	12.4650	28	28	9	352 49977	17.3780
44	11	7	4 57540	13.0335	50	7	5	31986	10.3732
43	12	7	8 19138	13.6159	49	8	6	74503	11.2185
42	13	7	13 46233	14.1126	48	9	6	1 67138	12.0263
41	14	7	20 62433	14.5392	47	10	6	3 22674	12.6845
40	15	7	29 85199	14.9091	46	11	7	5 95745	13.2975
39	16	8	42 93093	15.2725	45	12	7	10 76124	13.8889
38	17	8	60 06593	15.6085	44	13	7	17 84158	14.3945
37	18	8	80 38070	15.8997	43	14	7	27 57807	14.8300
36	19	8	103 36962	16.1515	42	15	8	40 97442	15.2257
35	20	8	128 29107	16.3674	41	16	8	61 06586	15.6249
34	21	8	154 10796	16.5505	40	17	8	86 46024	15.9726

(contd.)

TABLE (contd.)

<i>m</i>	<i>n</i>	<i>k</i>	<i>P</i>	$\ln P$	<i>m</i>	<i>n</i>	<i>k</i>	<i>P</i>	$\ln P$
39	18	8	117 13111	16.2760	43	16	8	85 39309	15.9602
38	19	8	152 57069	16.5407	42	17	8	122 21081	16.3186
37	20	8	191 90402	16.7698	41	18	8	167 40641	16.6333
36	21	8	233 78883	16.9674	40	19	8	220 57864	16.9093
35	22	8	276 60019	17.1355	39	20	8	280 78670	17.1505
34	23	9	321 07672	17.2847	38	21	9	348 10463	17.3654
33	24	9	366 97477	17.4183	37	22	9	429 79861	17.5763
32	25	9	407 70152	17.5234	36	23	9	514 45871	17.7562
31	26	9	440 76013	17.6015	35	24	9	598 16879	17.9068
30	27	9	464 07627	17.6530	34	25	9	676 73718	18.0301
29	28	9	476 12734	17.6785	33	26	9	745 88455	18.1275
50	8	6	82329	11.3185	32	27	9	801 70744	18.1997
49	9	6	1 85277	12.1297	31	28	9	840 90150	18.2474
48	10	6	3 58862	12.7908	30	29	9	861 11797	18.2711
47	11	7	6 76932	13.4253	50	10	6	4 40865	12.9965
46	12	7	12 27810	14.0208	49	11	7	8 67022	13.6728
45	13	7	20 44096	14.5304	48	12	7	15 84984	14.2761
44	14	7	31 72608	14.9702	47	13	7	26 59030	14.7935
43	15	8	48 29168	15.3901	46	14	7	41 59230	15.2408
42	16	8	72 36060	15.7945	45	15	8	66 33132	15.7076
41	17	8	103 01413	16.1477	44	16	8	100 38939	16.1219
40	18	8	140 35506	16.4574	43	17	8	144 38879	16.4855
39	19	8	183 89795	16.7274	42	18	8	198 80896	16.8052
38	20	8	232 73950	16.9627	41	19	8	263 34751	17.0862
37	21	8	285 36395	17.1668	40	20	8	337 09362	17.3333
36	22	9	343 43297	17.3519	39	21	9	429 88817	17.5765
35	23	9	407 86387	17.5240	38	22	9	534 54791	17.7942
34	24	9	470 29422	17.6663	37	23	9	644 63154	17.9815
33	25	9	527 41887	17.7809	36	24	9	755 40494	18.1401
32	26	9	575 88996	17.8688	35	25	9	861 73794	18.2718
31	27	9	612 87136	17.9311	34	26	9	958 13575	18.3779
30	28	9	636 00631	17.9681	33	27	9	1039 50498	18.4599
29	29	9	643 90786	17.9804	32	28	9	1101 19988	18.5169
50	9	6	2 04965	12.2307	31	29	9	1139 76230	18.5517
49	10	6	3 98137	12.8945	30	30	9	1152 84416	18.5631
48	11	7	7 67055	13.5503	50	11	7	9 77526	13.7927
47	12	7	13 96951	14.1500	49	12	7	17 93701	14.4001
46	13	7	23 34699	14.6635	48	13	7	30 19893	14.9208
45	14	7	36 38210	15.1069	47	14	8	47 92845	15.3826
44	15	8	56 70062	15.5507	46	15	8	77 33016	15.8610

(contd.)

TABLE (contd.)

<i>m</i>	<i>n</i>	<i>k</i>	<i>P</i>	ln <i>P</i>	<i>m</i>	<i>n</i>	<i>k</i>	<i>P</i>	ln <i>P</i>
45	16	8	117 58003	16.2803	45	18	8	325 02641	17.2968
44	17	8	169 92776	16.6481	44	19	9	441 12115	17.6022
43	18	8	235 11639	16.9729	43	20	9	598 81456	17.9078
42	19	8	313 02913	17.2591	42	21	9	784 22836	18.1776
41	20	9	407 99939	17.5242	41	22	9	994 06899	18.4148
40	21	9	527 96704	17.7820	40	23	9	1223 03434	18.6220
39	22	9	660 95032	18.0067	39	24	9	1463 66759	18.8019
38	23	9	802 68295	18.2009	38	25	9	1706 99477	18.9553
37	24	9	947 61464	18.3668	37	26	9	1942 78551	19.0849
36	25	9	1089 44473	18.5063	36	27	9	2160 44911	19.1908
35	26	9	1221 35948	18.6204	35	28	9	2349 53281	19.2751
34	27	9	1336 69646	18.7111	34	29	9	2500 65414	19.3374
33	28	9	1429 29037	18.7776	33	30	9	2606 02789	19.3785
32	29	9	1494 08095	18.8223	32	31	9	2660 15275	19.3990
31	30	9	1527 42059	18.8439	50	14	8	73 54046	15.8107
50	12	7	20 24730	14.5210	49	15	8	120 17808	16.3020
49	13	7	34 20780	15.0454	48	16	8	185 09766	16.7338
48	14	8	55 44504	15.5284	47	17	8	271 02746	17.1150
47	15	8	89 85306	16.0111	46	18	8	380 06569	17.4534
46	16	8	137 23611	16.4344	45	19	9	527 95384	17.7820
45	17	8	199 23705	16.8072	44	20	9	720 55854	18.0930
44	18	8	276 96528	17.1369	43	21	9	948 94970	18.3682
43	19	8	370 52293	17.4277	42	22	9	1209 82636	18.6113
42	20	9	495 43206	17.7183	41	23	9	1497 48319	18.8243
41	21	9	645 06385	17.9824	40	24	9	1803 39984	19.0101
40	22	9	812 70622	18.2133	39	25	9	2117 12687	19.1707
39	23	9	993 60029	18.4143	38	26	9	2426 29585	19.3069
38	24	9	1181 22357	18.5871	37	27	9	2717 92792	19.4205
37	25	9	1368 06273	18.7341	36	28	9	2978 68322	19.5123
36	26	9	1545 65019	18.8564	35	29	9	3196 35221	19.5826
35	27	9	1705 58919	18.9547	34	30	9	3360 11815	19.6326
34	28	9	1839 69559	19.0305	33	31	9	3461 90396	19.6626
33	29	9	1941 06623	19.0839	32	32	9	3496 37130	19.6723
32	30	9	2004 14397	19.1158	50	15	8	138 37094	16.4432
31	31	9	2025 60300	19.1267	49	16	8	213 95494	16.8789
50	13	7	38 64870	15.1675	48	17	8	314 54434	17.2639
49	14	8	63 94505	15.6710	47	18	8	442 88946	17.6063
48	15	8	104 07402	16.1583	46	19	9	629 35332	17.9577
47	16	8	159 63449	16.5857	45	20	9	863 40338	18.2738
46	17	8	232 77315	16.9631	44	21	9	1143 11868	18.5543

(contd.)

TABLE (contd.)

m	n	k	P	$\ln P$	m	n	k	P	$\ln P$
43	22	9	1465 43932	18.8026	39	28	10	6117 54625	20.2320
42	23	9	1824 26798	19.0217	38	29	10	6794 47856	20.3368
41	24	9	2210 12335	19.2137	37	30	10	7382 83716	20.4199
40	25	9	2610 84543	19.3805	36	31	10	7853 16104	20.4816
39	26	9	3011 82766	19.5233	35	32	10	8181 25030	20.5225
38	27	9	3397 17085	19.6436	34	33	10	8349 77854	20.5430
37	28	10	3754 63448	19.7438	50	18	9	720 15964	18.0925
36	29	10	4103 51987	19.8327	49	19	9	1042 65229	18.4628
35	30	10	4383 68116	19.8986	48	20	9	1450 83788	18.7930
34	31	10	4579 69577	19.9424	47	21	9	1949 10021	19.0880
33	32	10	4680 58062	19.9642	46	22	9	2536 61307	19.3516
50	16	8	246 58769	17.0207	45	23	9	3207 46689	19.5861
49	17	8	363 90840	17.4098	44	24	9	3949 53859	19.7944
48	18	9	520 90322	17.7685	43	25	10	4805 86443	19.9905
47	19	9	747 38022	18.1295	42	26	10	5770 04655	20.1734
46	20	9	1030 38620	18.4503	41	27	10	6758 46671	20.3314
45	21	9	1371 15667	18.7362	40	28	10	7733 19503	20.4662
44	22	9	1767 02301	18.9900	39	29	10	8652 69196	20.5786
43	23	9	2211 74314	19.2146	38	30	10	9475 63990	20.6694
42	24	9	2694 80264	19.4121	37	31	10	10162 61566	20.7389
41	25	9	3202 37292	19.5845	36	32	10	10680 02572	20.7892
40	26	9	3717 22402	19.7336	35	33	10	11001 40057	20.8186
39	27	10	4263 93543	19.8709	34	34	10	11110 50987	20.8286
38	28	10	4808 78167	19.9912	50	19	9	1225 23765	18.6236
37	29	10	5299 24547	20.0882	49	20	9	1712 34329	18.9583
36	30	10	5710 83534	20.1631	48	21	9	2310 67289	19.2583
35	31	10	6021 76411	20.2161	47	22	9	3021 03754	19.5263
34	32	10	6215 50709	20.2479	46	23	9	3838 16489	19.7657
33	33	10	6281 22125	20.2583	45	24	10	4777 67980	19.9847
50	17	8	419 76459	17.5527	44	25	10	5923 58890	20.1997
49	18	9	613 49944	17.9321	43	26	10	7155 71497	20.3886
48	19	9	884 29654	18.2977	42	27	10	8435 34605	20.5531
47	20	9	1224 93541	18.6236	41	28	10	9716 68633	20.6946
46	21	9	1637 97002	18.9141	40	29	10	10948 69267	20.8143
45	22	9	2121 50724	19.1730	39	30	10	12078 80230	20.9120
44	23	9	2669 27138	19.4024	38	31	10	13055 81681	20.9901
43	24	9	3269 92871	19.6055	37	32	10	13833 79695	21.0476
42	25	9	3907 79317	19.7837	36	33	10	14374 91850	21.0858
41	26	10	4627 84497	19.9529	35	34	10	14652 44490	21.1052
40	27	10	5384 30075	20.1041	50	20	9	2014 12815	19.1208

(contd.)

TABLE (contd.)

m	n	k	P	$\ln P$	m	n	k	P	$\ln P$
49	21	9	2729 56508	19.4250	40	32	10	28816 32309	21.7818
48	22	9	3584 42957	19.6972	39	33	10	30649 97588	21.8433
47	23	9	4574 70142	19.9413	38	34	10	32022 38841	21.8871
46	24	10	5827 69039	20.1834	37	35	10	32871 47205	21.9133
45	25	10	7266 20126	20.4039	36	36	10	33159 05471	21.9220
44	26	10	8829 11980	20.5988	50	23	10	7923 96657	20.4906
43	27	10	10471 57913	20.7692	49	24	10	10311 65878	20.7539
42	28	10	12139 30628	20.9171	48	25	10	13057 57217	20.9901
41	29	10	13769 93474	21.0432	47	26	10	16122 57618	21.2007
40	30	10	15298 02342	21.1486	46	27	10	19443 23594	21.3880
39	31	10	16657 62671	21.2337	45	28	10	22934 43320	21.5532
38	32	10	17788 01597	21.2993	44	29	10	26491 23141	21.6975
37	33	10	18636 25994	21.3461	43	30	10	29994 80981	21.8216
36	34	10	19162 35495	21.3735	42	31	10	33317 55150	21.9269
35	35	10	19340 48642	21.3828	41	32	10	36331 04524	22.0133
50	21	9	3213 35094	19.5879	40	33	10	38912 78996	22.0820
49	22	9	4237 59702	19.8648	39	34	10	40954 33153	22.1330
48	23	10	5492 16709	20.1240	38	35	10	42367 41738	22.1671
47	24	10	7077 59963	20.3777	37	36	10	43090 01747	22.1840
46	25	10	8872 32031	20.6036	50	24	10	12374 54744	20.9359
45	26	10	10841 03991	20.8041	49	25	10	15744 12988	21.1770
44	27	10	12932 77394	20.9803	48	26	10	19535 19270	21.3931
43	28	10	15083 58259	21.1341	47	27	10	23678 52458	21.5854
42	29	10	17218 59687	21.2667	46	28	10	28077 93079	21.7558
41	30	10	19256 87004	21.3787	45	29	10	32610 94474	21.9053
40	31	10	21115 33083	21.4709	44	30	10	37136 23963	22.0354
39	32	10	22714 54312	21.5435	43	31	10	41498 09397	22.1464
38	33	10	23983 25045	21.5980	42	32	10	45536 91612	22.2393
37	34	10	24863 51678	21.6340	41	33	11	49280 32477	22.3182
36	35	10	25314 25264	21.6519	40	34	11	52585 98094	22.3832
50	22	9	4992 48151	20.0285	39	35	11	55067 51167	22.4293
49	23	10	6609 41327	20.3091	38	36	11	56605 93407	22.4569
48	24	10	8559 97906	20.5678	37	37	11	57127 45966	22.4660
47	25	10	10786 00241	20.7996	50	25	10	18910 52058	21.3604
46	26	10	13249 96355	21.0046	49	26	10	23574 35518	21.5807
45	27	10	15894 39174	21.1864	48	27	10	28713 66631	21.7780
44	28	10	18645 25942	21.3466	47	28	10	34220 68452	21.9535
43	29	10	21413 22272	21.4846	46	29	10	39954 61213	22.1084
42	30	10	24099 89810	21.6029	45	30	10	45748 41758	22.2439
41	31	10	26601 41111	21.7016	44	31	11	51589 69155	22.3640

(contd.)

TABLE (contd.)

<i>m</i>	<i>n</i>	<i>k</i>	<i>P</i>	$\ln P$	<i>m</i>	<i>n</i>	<i>k</i>	<i>P</i>	$\ln P$
43	32	11	57621 29820	22.4745	41	37	11	1 67110 64395	23.5393
42	33	11	63121 57904	22.5657	40	38	11	1 71270 08194	23.5641
41	34	11	67854 96308	22.6380	39	39	11	1 72677 43116	23.5723
40	35	11	71610 92759	22.6919	50	29	11	89964 01156	22.9201
39	36	11	74217 12827	22.7278	49	30	11	1 07023 43673	23.0936
38	37	11	75551 81621	22.7455	48	31	11	1 24793 51862	23.2474
50	26	10	28338 51498	21.7650	47	32	11	1 42758 49550	23.3822
49	27	10	34677 56224	21.9669	46	33	11	1 60341 10730	23.4977
48	28	10	41528 57613	22.1471	45	34	11	1 76928 69550	23.5963
47	29	10	48730 86645	22.3070	44	35	11	1 91908 23012	23.6777
46	30	11	56537 64953	22.4557	43	36	11	2 04698 80515	23.7422
45	31	11	64825 06005	22.5925	42	37	11	2 14787 35529	23.7905
44	32	11	72868 72572	22.7094	41	38	11	2 21758 07346	23.8225
43	33	11	80360 72724	22.8072	40	39	11	2 25318 88801	23.8381
42	34	11	86995 00870	22.8866	50	30	11	1 31223 95582	23.2974
41	35	11	92489 89201	22.9478	49	31	11	1 53801 66152	23.4564
40	36	11	96602 47364	22.9913	48	32	11	1 76885 25312	23.5963
39	37	11	99148 25448	23.0173	47	33	11	1 99779 45500	23.7180
38	38	11	1 00009 78395	23.0259	46	34	11	2 21729 19863	23.8220
50	27	10	41716 69320	22.1517	45	35	11	2 41963 71851	23.9097
49	28	10	50190 10562	22.3365	44	36	11	2 59732 04150	23.9803
48	29	11	59690 32568	22.5098	43	37	11	2 74351 14738	24.0354
47	30	11	70262 85674	22.6730	42	38	11	2 85239 51141	24.0739
46	31	11	81035 29097	22.8156	41	39	11	2 91957 45483	24.0975
45	32	11	91648 55306	22.9386	40	40	11	2 94227 53723	24.1050
44	33	11	1 01718 12393	23.0425	50	31	11	1 88733 10149	23.6609
43	34	11	1 10853 70676	23.1294	49	32	11	2 18174 37366	23.8061
42	35	11	1 18683 88037	23.1975	48	33	11	2 47728 07693	23.9330
41	36	11	1 24877 51159	23.2482	47	34	11	2 76475 44961	24.0429
40	37	11	1 29165 85033	23.2821	46	35	11	3 03456 69181	24.1361
39	38	11	1 31359 03882	23.2989	45	36	11	3 27717 24867	24.2128
50	28	11	60743 86247	22.5274	44	37	11	3 48361 68098	24.2741
49	29	11	73436 67765	22.7171	43	38	11	3 64601 44647	24.3195
48	30	11	86911 38385	22.8856	42	39	11	3 75801 59895	24.3498
47	31	11	1 00799 77609	23.0335	41	40	11	3 81516 38909	24.3648
46	32	11	1 14668 65369	23.1630	50	32	11	2 67929 70697	24.0113
45	33	11	1 28044 87218	23.2728	49	33	11	3 05779 89406	24.1436
44	34	11	1 40435 73996	23.3652	48	34	11	3 43080 17040	24.2588
43	35	11	1 51361 34771	23.4406	47	35	11	3 78650 85881	24.3575
42	36	11	1 60378 14920	23.4983	46	36	11	4 11291 30737	24.4400

(contd.)

TABLE (contd.)

m	n	k	P	$\ln P$	m	n	k	P	$\ln P$
45	37	11	4 39849 25806	24.5070	49	38	12	15 19808 02513	25.7472
44	38	11	4 63274 94153	24.5591	48	39	12	16 34271 94957	25.8195
43	39	11	4 80686 50274	24.5960	47	40	12	17 31398 65020	25.8772
42	40	11	4 91411 93990	24.6180	46	41	12	18 07638 83018	25.9207
41	41	11	4 95035 11401	24.6253	45	42	12	18 60140 24185	25.9491
50	33	11	3 75781 39140	24.3498	44	43	12	18 86904 89685	25.9636
49	34	11	4 23771 19675	24.4700	50	38	12	19 06243 71245	25.9735
48	35	11	4 70190 72381	24.5739	49	39	12	20 61267 50034	26.0517
47	36	11	5 13550 10326	24.6622	48	40	12	21 96496 80540	26.1154
46	37	11	5 52383 95583	24.7350	47	41	12	23 07168 96277	26.1644
45	38	11	5 85323 63336	24.7928	46	42	12	23 89286 38928	26.1994
44	39	12	6 12310 43580	24.8380	45	43	12	24 39815 71859	26.2205
43	40	12	6 32016 81914	24.8696	44	44	12	24 56874 10326	26.2275
42	41	12	6 42083 43329	24.8855	50	39	12	25 87209 32444	26.2790
50	34	11	5 21132 65133	24.6767	49	40	12	27 72326 84247	26.3480
49	35	11	5 81157 95713	24.7858	48	41	12	29 28962 62411	26.4032
48	36	12	6 39007 74226	24.8806	47	42	12	30 51649 99813	26.4443
47	37	12	6 96793 10955	24.9672					
46	38	12	7 47543 63830	25.0375					
45	39	12	7 89300 67841	25.0919					
44	40	12	8 20407 84754	25.1305	46	43	12	31 36006 12637	26.4714
43	41	12	8 39599 06742	25.1536	45	44	12	31 78970 99145	26.4851
42	42	12	8 46086 77119	25.1613	50	40	12	34 82040 12759	26.5761
50	35	12	7 21152 46551	25.0017	49	41	12	36 99276 38527	26.6366
49	36	12	8 04087 32410	25.1104	48	42	12	38 76643 33935	26.6836
48	37	12	8 81936 60398	25.2028	47	43	12	40 08007 11922	26.7168
47	38	12	9 51950 29214	25.2793	46	44	12	40 88749 26650	26.7368
46	39	12	10 11538 88895	25.3403	45	45	12	41 15986 79344	26.7433
45	40	12	10 58422 93657	25.3849	50	41	12	46 49261 21156	26.8651
44	41	12	10 90761 68659	25.4157	49	42	12	48 99300 53717	26.9176
43	42	12	11 07264 07818	25.4299	48	43	12	50 94751 63446	26.9568
50	36	12	10 06992 84765	25.3352	47	44	12	52 28946 82783	26.9827
49	37	12	11 10683 74769	25.4338	46	45	12	52 97237 36923	26.9956
48	38	12	12 05864 76466	25.5156	50	42	12	61 61207 57461	27.1468
47	39	12	12 89160 94716	25.5826	49	43	12	64 42639 20547	27.1915
46	40	12	13 57509 89834	25.6345	48	44	12	66 50737 83245	27.2233
45	41	12	14 08318 37663	25.6707	47	45	12	67 78497 02710	27.2423
44	42	12	14 39624 72183	25.6931	46	46	12	68 21577 33650	27.2487
43	43	12	14 50198 03527	25.7001	50	43	13	81 31992 55584	27.4243
50	37	12	13 92053 32891	25.6593	49	44	13	84 70512 07431	27.4651

(contd.)

TABLE (contd.)

<i>m</i>	<i>n</i>	<i>k</i>	<i>P</i>	ln <i>P</i>	<i>m</i>	<i>n</i>	<i>k</i>	<i>P</i>	ln <i>P</i>
48	45	13	87 03283 50986	27.4921	49	47	13	192 81702 15976	28.2875
47	46	13	88 21844 42988	27.5057	48	48	13	194 03971 15680	28.2938
50	44	13	108 48739 61713	27.7129	50	47	13	247 46550 61454	28.5373
49	45	13	112 14595 34988	27.7457	49	48	13	250 54630 99296	28.5494
48	46	13	114 39473 63489	27.7656	50	48	13	321 76058 44116	28.7999
47	47	13	115 15346 35791	27.7726	49	49	13	323 71338 03249	28.8058
50	45	13	143 73617 95296	27.9936	50	49	13	415 97768 53873	29.0566
49	46	13	147 50885 97315	28.0199	50	50	13	534 85203 96205	29.3080
48	47	13	149 42890 01850	28.0327					
50	46	13	189 19089 12574	28.2688					

