

sult of a systematic approach to new methods and new approximations, should be an indispensable reference work for all those engaged in scientific computation.

J. W. W.

1. CECIL HASTINGS, JR., JEANNE T. HAYWARD & JAMES P. WONG, JR., *Approximations for Digital Computers*, Princeton Univ. Press, Princeton, N. J., 1955. (See *MTAC*, v. 9, 1955, pp. 121–123, RMT 56.)

2. A. FLETCHER, J. C. P. MILLER, L. ROSENHEAD & L. J. COMRIE, *An Index of Mathematical Tables*, second edition, Addison-Wesley Publishing Co., Inc., Reading, Mass., 1962. (See *Math. Comp.*, v. 17, 1963, pp. 302–303, RMT 33.)

3. L. A. LYUSTERNIK, O. A. CHERVONENKIS & A. R. YANPOL'SKII, *Handbook for Computing Elementary Functions*, Pergamon Press, New York, 1965. (See *Math. Comp.*, v. 20, 1966, pp. 452–453, RMT 64.)

4. CHARLES L. LAWSON, *Bibliography of Recent Publications in Approximation Theory with Emphasis on Computer Applications*, Technical Memorandum No. 201, Jet Propulsion Laboratory, Pasadena, Calif., 16 August 1968.

17[2.10].—ARNE P. OLSON, “Gaussian quadratures for $\int_1^\infty \exp(-x)f(x)dx/x^m$ and $\int_1^\infty g(x)dx/x^m$,” tables appearing in the microfiche section of this issue.

Abscissas and weights of N -point Gaussian quadrature formulas for the integrals in the title are given in Table II to 16 significant figures for $N = 2(1)10$, $M = 0(1)10$. Table I contains 24S values of the moments $a_{n,l} = \int_1^\infty \exp(-t)dt/t^{n-l}$ for $n - l = 10(-1) - 19$. As a possible application of Table II, the author mentions the evaluation of the series

$$\sum_{k=0}^{\infty} E_m(t + kh) = \int_1^\infty \frac{\exp(-xt)dx}{[1 - \exp(-hx)]x^m} \quad (E_m \text{ the exponential integral}),$$

which occurs in the calculation of neutron collision rates in infinite slab geometry.

W. G.

18[2.45, 12].—DONALD E. KNUTH, *The Art of Programming*, Vol. I: *Fundamental Algorithms*, Addison-Wesley Publishing Co., Reading, Mass., 1968, xxi + 634 pp., 25 cm. Price \$19.50.

Most people think of mathematics as being a very complicated subject. On the contrary, if we define the complexity of a problem as the amount of information required to describe the problem and its solution, it is apparent that mathematics can deal only with simple problems. Further, if we consider the universe of all problems, almost all of them are too complex for solution by mathematical methods, which rely heavily on abstraction and conceptualization, which themselves reflect the limitations of the brain. Thus, while it is reasonable to expect a mathematical solution to the four-color problem, it is not reasonable to expect a mathematical solution to the problem of language translation, which can be stated only in terms of massive amounts of information from grammars and dictionaries, and whose solution will probably require an algorithm of comparable size. The importance of the computer is that it permits the consideration of such irreducibly complex problems.

It is not surprising therefore, that what looks like the most authoritative work on computer programming is entitled “The Art of Computer Programming”. Programming, which is concerned with algorithms for solving complex problems, is itself a complex problem, and we would be mistaken if we expected it to have a neat

TABLE II

GAUSSIAN QUADRATURE NODES AND WEIGHTS

Table II lists abscissas x_i and weights w_i and $w_i \exp(x_i)$ required for Gaussian quadrature approximations to integrals having the following forms:

$$\int_1^{\infty} \exp(-x) f(x) dx/x^m \approx \sum_{i=1}^n w_i f(x_i)$$

$$\int_1^{\infty} g(x) dx/x^m \approx \sum_{i=1}^n [w_i \exp(x_i)] g(x_i).$$

Entries in Table II are in floating point form, spaced for clarity. For example:

$$1.35816 \quad 89163 \quad 38747 \quad E-01 = 0.1358168916338747.$$

The table proceeds from $m=0$ by 1 to 10. For a given m , abscissas and weights are tabulated from $n=2$ by 1 to 10. Each quadrature set is identified by a title giving values for m and n , (replaced by M and N).

x(i)		w(i)		w(i)*EXP(x(i))							
		N= 2	M= 0								
1.50578	64376	26905	E 00	3.14004	74434	14434	E=01	1.53332	60331	19417	E 00
4.41421	35623	73095	E 00	5.38746	96829	99894	E=02	4.49095	73350	94593	E 00
		N= 3	M= 0								
1.41577	45567	83479	E 00	2.61596	49911	36631	E=01	1.07769	28592	70921	E 00
3.29428	03602	79042	E 00	1.02460	94818	17890	E=01	2.76214	29619	01967	E 00
7.28994	50829	37479	E 00	3.82199	38759	96281	E=03	5.60109	46254	34426	E 00
		N= 4	M= 0								
1.32254	76896	19392	E 00	2.21887	99484	54620	E=01	8.32739	12383	78892	E=01
2.74576	11011	58347	E 00	1.31486	98883	42454	E=01	2.04810	24384	54297	E 00
5.53662	02969	21128	E 00	1.43060	62852	42635	E=02	3.63114	63058	21518	E 00
1.03950	70912	30113	E 01	1.98395	43490	86187	E=04	6.48714	50844	07662	E 00
		N= 5	M= 0								
1.26356	03197	18141	E 00	1.91943	16244	92683	E=01	6.79094	04220	77505	E=01
2.41340	38591	06517	E 00	1.46661	32367	48797	E=01	1.63848	78736	02747	E 00
4.59642	57710	40722	E 00	2.79376	65950	09697	E=02	2.76944	32423	70838	E 00
8.08581	00058	58838	E 00	1.32869	17648	15829	E=03	4.31965	69009	20895	E 00
1.36408	00844	27578	E 01	8.59733	23814	71397	E=06	7.21918	63543	54448	E 00
		N= 6	M= 0								
1.22284	66041	79261	E 00	1.68843	66777	01458	E=01	5.73935	50742	27381	E=01
2.18893	21016	72823	E 00	1.53406	03259	24751	E=01	1.36925	25987	12305	E 00
3.99273	63260	59314	E 00	4.17077	36441	11688	E=02	2.26688	45933	82672	E 00
6.77514	35691	04511	F 00	3.82565	09476	95968	E=03	3.35952	45823	55457	E 00
1.08374	47418	38259	E 01	9.68278	62787	49023	E=05	4.88682	68802	18825	E 00
1.69828	73980	60170	E 01	3.30557	30168	38985	E=07	7.84981	59455	95821	E 00
		N= 7	M= 0								
1.19384	36765	60362	E 00	1.58580	02721	27452	E=01	4.86477	59753	99723	E=01
2.02666	48953	39192	E 00	1.55183	05476	84049	E=01	1.17764	88688	61198	E 00
3.56787	67449	56746	E 00	5.41247	58925	71783	E=02	1.91824	97816	99807	E 00
5.90035	30845	24485	E 00	7.59064	57721	54457	E=03	2.77184	86362	32112	E 00
9.18215	34445	82861	E 00	3.95106	25132	25814	E=04	3.84124	91224	88915	E 00
1.37341	80291	79781	E 01	5.83657	81584	75240	E=06	5.38067	82079	21528	E 00
2.03957	27862	26254	E 01	1.16629	38867	50068	E=08	8.48543	24868	28317	E 00
		N= 8	M= 0								
1.17027	96323	85101	E 00	1.35816	89193	38747	E=01	4.37723	41049	29114	E=01
1.90370	17767	99380	E 00	1.54083	04689	59678	E=01	1.83388	93478	69598	E 00
3.25108	68298	66131	E 00	6.46713	61444	82393	E=02	1.66970	97658	58776	E 00
5.26670	01702	87659	E 00	1.22663	85299	76833	E=02	2.37692	47817	58999	E 00
8.04590	54023	93466	E 00	1.02805	24289	48167	E=03	3.20854	89133	47926	E 00
1.17585	16010	18100	E 01	3.33986	09753	38713	E=05	4.28857	95188	28132	E 00
1.67406	78641	27800	E 01	3.12173	17599	04741	E=07	5.81888	33684	71922	E 00
2.38631	31736	88926	E 01	3.85536	06655	87462	E=10	8.98822	62152	92211	E 00

X(I)	W(I)	W(I)*EXP(X(I))
	N=9 M=0	
1.15232 22277 31808 E 00	1.23654 00021 39910 E-01	3.91431 12431 56399 E-01
1.80722 00227 42256 E 00	1.91277 16932 02598 E-01	9.21805 02052 89631 E-01
3.80513 91558 19347 E 00	7.33137 83465 88102 E-02	1.40012 79099 42915 E 00
4.78347 39733 31233 E 00	1.74597 65307 91007 E-02	2.08677 08075 49261 E 00
7.20495 67778 76613 E 00	2.05998 75083 47849 E-03	2.77292 13897 11970 E 00
1.03729 85251 68758 E 01	1.18295 11373 59632 E-04	3.59162 80680 92268 E 00
1.44662 36911 89289 E 01	2.42510 65349 65998 E-06	4.64876 80021 48207 E 00
1.98335 97788 99170 E 01	1.91226 75248 33696 E-08	6.21227 94197 47138 E 00
2.73748 71890 92738 E 01	1.21864 48992 91038 E-11	9.36321 82377 05812 E 00
	N=10 M=0	
1.13779 34705 40492 E 00	1.13469 14530 19318 E-01	3.94009 73863 69963 E-01
1.72945 45495 83171 E 00	1.47563 77538 03706 E-01	8.31902 30104 35807 E-01
2.80834 29017 48316 E 00	8.82228 39783 84581 E-02	1.33028 85617 49328 E 00
4.48143 36978 54980 E 00	2.28406 98653 33803 E-02	1.86306 39031 11131 E 00
6.55249 61400 63804 E 00	3.49541 27551 10596 E-03	2.49025 55580 83010 E 00
9.33015 27467 64497 E 00	2.77016 30519 89920 E-04	3.18276 41951 35183 E 00
1.28437 85837 98807 E 01	1.03959 91026 44019 E-05	3.93415 26955 61521 E 00
1.72792 57831 37818 E 01	1.56323 52541 58068 E-07	4.99241 48721 93023 E 00
2.29965 85811 98876 E 01	6.76738 87944 42692 E-10	6.57220 24851 38803 E 00
3.09286 97012 27889 E 01	3.64635 74585 37653 E-13	9.78469 58483 74631 E 00

X(I)					W(I)					W(I)=EXP(X(I))
					N= 2	M= 1				
1.40737	37297	34419	E 00		1.93452	58897	56059	E=01	7.90294	42135 68991 E=01
3.68740	41030	13957	E 00		2.59313	45419	91434	E=02	1.03372	46315 56944 E 00
					N= 3	M= 1				
1.29677	12635	07463	E 00		1.67123	92190	25410	E=01	6.11250	50600 10363 E=01
2.79488	07776	20395	E 00		5.08169	08817	23468	E=02	8.31399	08607 36313 E=01
6.32715	26751	11190	F 00		1.44310	35857	44567	E=03	8.87504	98840 76752 E=01
					N= 4	M= 1				
1.23527	71457	44706	E 00		1.46284	52537	53246	E=01	5.03120	98048 29730 E=01
2.36930	58289	74705	E 00		6.74683	61421	16366	E=02	7.21231	08864 41838 E=01
4.80492	96831	67795	E 00		5.57010	72157	72357	E=03	6.79596	23234 40163 E=01
9.28329	29764	30245	E 00		6.09483	83259	68150	E=05	6.55523	24241 90257 E=01
					N= 5	M= 1				
1.19574	49366	78832	E 00		1.29939	62626	73791	E=01	4.29582	95498 63268 E=01
2.11435	96760	65064	E 00		7.77938	86588	71498	E=02	6.44466	29495 12759 E=01
4.08534	08232	97340	E 00		1.12281	72788	40735	E=02	6.16320	34566 93799 E=01
7.19065	84458	66653	E 00		4.20027	71691	13397	E=04	5.57366	97702 52587 E=01
1.24259	94670	47664	E 01		2.22112	21075	45637	E=06	5.53494	95435 09593 E=01
					N= 6	M= 1				
1.16803	79404	08271	E 00		1.16893	18314	98467	E=01	3.79898	73158 29838 E=01
1.94295	67280	59138	E 00		8.39150	49215	49528	E=02	5.89673	04858 94901 E=01
3.49924	16119	68623	E 00		1.73068	82878	76358	E=02	5.72690	76197 29732 E=01
6.02288	57912	80064	E 00		1.24327	02059	72230	E=03	5.13182	20743 90067 E=01
9.82378	09494	92207	E 00		2.54752	66670	02145	E=05	4.78470	71626 16875 E=01
1.56919	89773	05819	E 01		7.36795	72478	16818	E=08	4.81162	38149 99481 E=01
					N= 7	M= 1				
1.14746	72298	81464	E 00		1.06264	86453	18380	E=01	3.34766	08773 05231 E=01
1.81917	62222	77290	E 00		8.73011	76761	63471	E=02	5.38366	82016 87323 E=01
3.14603	28557	61739	E 00		2.31688	58806	49803	E=02	5.38929	13258 28113 E=01
5.25211	39906	98136	E 00		2.53714	38656	48028	E=03	4.84517	22283 86839 E=01
8.30711	71429	33023	E 00		1.07362	61975	24358	E=04	4.38899	15899 83771 E=01
1.24300	92267	03926	E 01		1.33352	35238	53219	E=06	4.87549	21289 36648 E=01
1.90459	61300	23362	E 01		2.28667	52149	81128	E=09	4.27327	04989 03271 E=01
					N= 8	M= 1				
1.13155	12694	46748	F 00		9.74947	99913	61918	E=02	3.82154	94918 91131 E=01
1.72528	75304	55522	E 00		8.89015	74681	68984	E=02	4.99105	44488 98887 E=01
2.88409	57641	08867	E 00		2.85166	82892	94924	E=02	5.18888	91847 53397 E=01
4.69820	72223	20832	E 00		4.21684	05949	39413	E=03	4.82799	25973 67109 E=01
7.27544	51377	41790	E 00		2.86182	58634	82852	E=04	4.13360	41198 92737 E=01
1.07871	45262	65876	E 01		7.79181	16678	28229	E=06	3.77943	95173 81137 E=01
1.55651	08041	76935	E 01		6.26468	89978	57487	E=08	3.68362	87962 88156 E=01
2.24661	75529	31342	E 01		6.74965	88454	99104	E=11	3.88671	79955 18066 E=01

X(I)				W(I)				W(I)*EXP(X(I))			
				N= 9	M= 1						
1.11884	82090	67661	E 00	9.00271	57158	78120	E=02	2.75602	49169	73238	E=01
1.65146	46116	83e51	E 00	8.93268	72830	70970	E=02	4.65504	64887	26422	E=01
2.68144	57288	76182	E 00	3.32447	53675	88448	E=02	4.85579	34280	92647	E=01
4.27824	53516	10862	E 00	6.17025	77890	08168	E=03	4.44960	70268	49366	E=01
6.51706	27875	48625	E 00	5.87640	67210	52026	E=04	3.97590	73325	03357	E=01
9.58425	72685	23660	E 00	2.67536	59280	46333	E=05	3.58946	46293	73114	E=01
1.34171	68072	87408	E 01	4.95901	92721	74801	E=07	3.32964	43907	05118	E=01
1.85998	71798	64190	E 01	2.78671	05850	45048	E=09	3.23790	85651	68894	E=01
2.59382	73169	71206	E 01	1.91526	98724	41632	E=12	3.52434	73399	78178	E=01
				N=10	M= 1						
1.18846	05506	65286	E 00	8.36810	92357	47596	E=02	2.53527	83122	67789	E=01
1.59179	88351	85654	E 08	8.89746	06903	56929	E=02	4.37094	68583	71022	E=01
2.51965	78191	33587	E 00	3.73455	06864	43886	E=02	4.63993	43522	93517	E=01
3.94766	67864	10030	E 00	8.29138	27220	34627	E=03	4.28688	31018	05750	E=01
5.93175	44938	86394	E 00	1.02182	44650	57512	E=03	3.85038	84088	40460	E=01
8.54420	96532	60461	E 00	6.74087	58945	29830	E=05	3.46273	64307	90768	E=01
1.18943	95339	16234	E 01	2.16495	28725	76068	E=06	3.17043	39382	11312	E=01
1.61660	50593	15076	E 01	2.84617	23831	29294	E=08	2.98598	59993	60497	E=01
2.17144	62839	17257	E 01	1.09349	68936	38832	E=10	2.94637	87856	13123	E=01
2.94522	45926	56112	E 01	5.26349	42735	03837	E=14	3.25253	54621	32850	E=01

X(I)	M(I)	N(I)=EXP(X(I))
N# 2 M# 2		
1.29545 16638 72386 E 00	1.33503 70912 90202 E=01	4.87641 70497 17565 E=01
3.09744 92429 05988 E 00	1.49917 97646 90189 E=02	3.31939 41618 88343 E=01
N# 3 M# 2		
1.22027 26464 38485 E 00	1.17879 04224 77738 E=01	3.99387 32264 06893 E=01
2.46216 98710 07976 E 00	2.99653 51795 27850 E=02	3.31030 87370 32972 E=01
5.46372 09746 19782 E 00	6.51112 73286 97837 E=04	1.53645 57541 21140 E=01
N# 4 M# 2		
1.17789 14259 25944 E 00	1.05204 14679 99520 E=01	3.41652 50172 99674 E=01
2.07719 11185 23060 E 00	4.06783 30371 18611 E=02	3.24695 11874 49742 E=01
4.16331 89521 83680 E 00	2.59113 53513 56516 E=03	1.68969 98837 84835 E=01
8.24336 95300 29864 E 00	2.18942 54427 46878 E=05	8.32491 98279 59196 E=02
N# 5 M# 2		
1.15025 73398 67924 E 00	9.50320 17623 19227 E=02	3.00206 68946 13323 E=01
1.88360 83898 90210 E 00	4.79349 33397 94918 E=02	3.15276 75510 88462 E=01
3.49621 16494 28512 E 00	5.37207 69539 52973 E=03	1.77226 88767 84757 E=01
6.36781 72201 86500 E 00	1.55921 89984 81042 E=04	9.08683 76766 54899 E=02
1.12692 69496 21061 E 01	6.57700 97952 88122 E=07	5.13420 18125 32100 E=02
N# 6 M# 2		
1.13063 22322 20918 E 00	8.67429 98884 34762 E=02	2.68696 35066 86347 E=01
1.75546 89324 00779 E 00	9.27640 15003 93233 E=02	3.04691 86350 49070 E=01
3.17842 25250 59972 E 00	8.50580 53982 88579 E=03	1.84781 81910 46834 E=01
5.33957 41002 11582 E 00	4.74884 77403 12262 E=04	9.89773 47898 69153 E=02
8.86718 01905 18771 E 00	7.78500 38290 66192 E=06	5.58365 13368 59553 E=02
1.44433 90655 59791 E 01	1.85123 93219 17018 E=08	3.46854 57579 09970 E=02
N# 7 M# 2		
1.11598 61085 59563 E 00	7.98665 28119 72856 E=02	2.43774 33753 67339 E=01
1.65926 11950 93989 E 00	5.59199 28880 82051 E=02	2.93883 88589 26942 E=01
2.78877 89578 71060 E 00	1.16790 28887 78282 E=02	1.89914 46489 80755 E=01
4.66843 23348 59828 E 00	9.95985 85509 11715 E=04	1.06102 97784 71269 E=01
7.48874 92934 71667 E 00	3.36894 92843 92910 E=05	6.02305 69244 28235 E=02
1.15719 93501 19164 E 01	3.45121 00314 37188 E=07	3.66120 72381 38773 E=02
1.77363 02281 01588 E 01	4.98651 91496 57517 E=10	2.80017 22717 98464 E=02
N# 8 M# 2		
1.10435 23817 55148 E 00	7.48877 21721 93794 E=02	2.23482 29988 15494 E=01
1.58754 82487 75518 E 00	5.79146 57446 72040 E=02	2.83303 49751 49567 E=01
2.57478 04846 77480 E 00	1.47193 52871 62779 E=02	1.93242 06667 42687 E=01
4.18975 80719 30694 E 00	1.69958 63889 69118 E=03	1.18184 29306 53456 E=01
6.55990 15258 18191 E 00	9.21089 77417 33090 E=05	6.30475 57747 55794 E=02
9.86265 29392 64289 E 00	2.06531 05545 28757 E=06	3.96534 62266 68524 E=02
1.44273 87492 41162 E 01	1.40456 93815 83465 E=08	2.58987 00487 43238 E=02
2.10974 25055 85484 E 01	1.38011 18985 91912 E=11	1.89006 18482 22126 E=02

X(I)				M(I)				N(I)*EXP(X(I))			
				N# 9		M# 2					
1.09505	60864	42232	E 00	6.91076	21804	99066	E=02	2.06986	69278	88811	E=01
1.53093	00078	24362	E 00	5.90939	32072	31442	E=02	2.73160	15041	86306	E=01
2.40953	61662	57708	E 00	1.75422	29680	80542	E=02	1.99223	93121	36437	E=01
3.82875	15745	97830	E 00	2.55047	37677	81885	E=03	1.17334	72032	33914	E=01
5.88178	67152	18789	F 00	1.93879	72879	23090	E=04	0.94960	17472	13728	E=02
8.66202	92837	40150	F 00	7.25555	87581	05297	E=06	4.27787	68815	45371	E=02
1.24074	03968	48760	E 01	1.13626	98319	77577	E=07	2.77938	40092	95959	E=02
1.73978	96985	86601	F 01	5.35185	63501	70668	E=10	1.92441	94289	34724	E=02
2.45262	73155	85478	E 01	3.36415	07554	01864	E=13	1.48144	30043	17054	E=02
				N#10		M# 2					
1.08738	60566	68889	E 00	6.48127	00557	69761	E=02	1.92267	90106	36073	E=01
1.48497	20370	80388	E 00	5.96938	95987	41069	E=02	2.63539	11671	22500	E=01
2.27771	06004	02758	F 00	2.01137	31192	82787	E=02	1.96195	83609	80652	E=01
3.54564	57018	05870	E 00	3.91059	43372	93667	E=03	1.21884	42970	26449	E=01
5.36114	32448	69379	F 00	3.45377	63818	62877	E=04	7.35544	82322	71792	E=02
7.80374	81326	46223	E 00	1.86950	79418	34973	E=05	4.57985	85675	26372	E=02
1.09846	50091	38455	E 01	5.06263	50134	36007	E=07	2.98503	57631	63394	E=02
1.90862	67839	77372	E 01	5.74024	06551	41813	E=09	2.04556	35462	11010	E=02
2.04594	12252	52275	E 01	1.93373	56422	05533	E=11	1.48527	47965	68621	E=02
2.80042	07645	89352	E 01	8.22406	33458	64788	E=15	1.19442	63738	04856	E=02

A(I)			W(I)			W(I)*EXP(X(I))			
			N= 2	M= 3					
1.22343	04295	09809	E 00	9.95863	44560	74613 E-02	3.38476	91154	83705 E-01
2.63798	71483	10518	E 00	1.01056	22637	01401 E-02	1.41327	39002	83795 E-01
				N= 3	M= 3				
1.16952	23990	93404	E 00	8.90106	75986	64090 E-02	2.86654	80322	72463 E-01
2.10256	58567	47764	E 00	2.83312	95559	17036 E-02	1.66455	36723	48695 E-01
4.70759	93390	13476	E 00	3.49995	73254	86788 E-04	3.87745	85600	62045 E-02
				N= 4	M= 3				
1.13889	38335	82717	E 00	8.03752	26124	65825 E-02	2.51036	87219	22222 E-01
1.85532	32704	77551	E 00	2.78794	07139	81029 E-02	1.78254	37290	18872 E-01
3.61600	81258	79861	E 00	1.42888	86311	24456 E-03	9.31886	38743	18003 E-02
7.28316	91872	74238	E 00	9.25330	29671	58698 E-06	1.34690	90172	01814 E-02
				N= 5	M= 3				
1.11873	38314	99835	E 00	7.33801	64326	61129 E-02	2.24614	62458	69335 E-01
1.78816	13296	86547	E 00	3.32287	95218	95913 E-02	1.83339	88683	94322 E-01
3.06708	66159	14748	E 00	3.02261	61811	94931 E-03	6.48234	79848	47415 E-02
5.62228	56866	83087	E 00	6.81666	92866	71015 E-05	1.88476	16850	42589 E-02
1.01646	15619	90607	E 01	2.24858	12807	88420 E-07	9.83988	86822	29717 E-03
				N= 6	M= 3				
1.10428	09954	54001	E 00	6.76222	22797	99076 E-02	2.84819	92578	42468 E-01
1.80892	65677	49889	E 00	3.69755	98136	15169 E-02	1.84783	47846	91992 E-01
2.72650	84358	44798	E 00	4.87812	82501	09360 E-03	7.45590	98418	89941 E-02
4.72784	94319	18681	E 00	2.13255	58755	40839 E-04	2.41090	07861	77235 E-02
7.97238	31352	23086	E 00	2.75714	64226	86917 E-06	7.99506	19615	87885 E-03
1.32414	93211	69965	E 01	5.27953	15478	94552 E-09	2.97373	88273	23522 E-03
				N= 7	M= 3				
1.09332	38166	38761	E 00	6.27973	90900	57654 E-02	1.87398	49579	65281 E-01
1.53676	70121	96813	E 00	3.96055	83494	33051 E-02	1.84147	50938	84622 E-01
2.49142	84471	44846	E 00	6.81834	37672	18748 E-03	8.23554	83333	81331 E-02
4.15033	11821	86990	E 00	4.58288	71940	75588 E-04	2.98802	88543	98070 E-02
6.73054	85054	42158	E 00	1.22663	61136	39078 E-05	1.82743	84699	17401 E-02
1.05637	68523	91854	E 01	1.81833	41680	60780 E-07	3.94163	76162	45787 E-03
1.64520	44513	74764	E 01	1.21681	58558	14776 E-10	1.68924	89433	57831 E-03
				N= 8	M= 3				
1.08468	21742	38594	E 00	5.86894	47898	81164 E-02	1.73632	69583	74519 E-01
1.48156	24770	83293	E 00	4.14306	12575	13230 E-02	1.82287	82747	67876 E-01
2.31804	54075	59917	E 00	8.73693	01127	91120 E-03	8.87305	93588	44884 E-02
3.74123	30369	13643	E 00	7.99953	69348	75983 E-04	3.37179	92628	98978 E-02
5.90174	83689	68206	E 00	3.43937	08680	27799 E-05	1.25769	62257	87417 E-02
8.98828	21825	04794	E 00	6.25666	78878	95066 E-07	5.01876	98984	21694 E-03
1.33316	07623	33311	E 01	3.53937	86847	25275 E-09	2.17939	70681	86417 E-03
1.97593	88346	35499	E 01	2.76972	18238	47460 E-12	1.05640	26394	48137 E-03

X(I)	W(I)	W(I)=EXP(X(I))
	N=9 M=3	
1.07766 33112 46120 E 00	5.51436 95531 56445 E-02	1.62001 52284 73275 E-01
1.43775 55552 71106 E 00	4.26714 82044 79008 E-02	1.79699 56706 54142 E-01
2.18419 15268 84839 E 00	1.85741 68781 19884 E-02	9.39392 43551 02895 E-02
3.43406 99456 85397 E 00	1.22620 02445 41862 E-03	3.80153 52886 59854 E-02
5.30477 23826 87308 E 00	7.41397 28909 36052 E-05	1.48643 53349 45606 E-02
7.90893 61067 14715 E 00	2.25140 85207 42820 E-06	6.12719 37606 30423 E-03
1.14396 98289 14852 E 01	2.93406 65040 39667 E-08	2.72689 10379 62461 E-03
1.62381 28815 81478 E 01	1.17507 33153 07449 E-10	1.31437 82058 13883 E-03
2.31400 23208 20467 E 01	6.24394 98502 34168 E-14	6.99912 97556 95861 E-04
	N=10 M=3	
1.07183 11842 63448 E 00	5.20472 92057 28249 E-02	1.52015 72237 49463 E-01
1.40201 88421 76531 E 00	4.34825 94495 97359 E-02	1.76686 95902 16744 E-01
2.07733 23139 46412 E 00	1.22991 77632 65323 E-02	9.81861 05643 35030 E-02
3.19388 64640 16591 E 00	1.72173 28741 42832 E-03	4.19910 25093 39125 E-02
4.84164 28738 44258 E 00	1.35099 89858 86228 E-04	1.71140 89803 69270 E-02
7.11086 32461 89337 E 00	5.93529 47335 55962 E-06	7.27195 12588 99361 E-03
1.01169 45084 75749 E 01	1.33651 52077 24282 E-07	3.38908 04730 21914 E-03
1.40421 90394 61893 E 01	1.28910 38758 42215 E-09	1.61708 82300 14781 E-03
1.92334 84890 46824 E 01	3.75977 41954 62148 E-12	6.47468 09593 64437 E-04
2.65781 31490 68192 E 01	1.39630 61783 63764 E-15	4.87210 34975 17371 E-04

X(I)				N(I)				N(I)*EXP(X(I))			
				N# 2		N# 4					
1.17534	75943	59977	E 00	7.34148	91952	65419	E=02	2.54006	40504	29087	E=01
2.29185	81017	20291	E 00	7.64759	93719	02543	E=03	7.56600	20693	86345	E=02
				N# 3		N# 4					
1.13462	04554	00516	E 00	7.05171	91901	58492	E=02	2.19307	46881	08838	E=01
1.87827	47666	90536	E 00	1.53240	19099	23103	E=02	1.00252	92473	63038	E=01
4.06272	18689	61457	E 00	2.21280	32374	47741	E=04	1.28635	49586	54973	E=02
				N# 4		N# 4					
1.11147	22785	91640	E 00	6.41126	17841	66392	E=02	1.94027	28913	33153	E=01
1.69851	49794	14032	E 00	2.10287	14698	28829	E=02	1.13795	59921	55913	E=01
3.15938	15464	13987	E 00	9.14551	24349	68365	E=04	2.15903	02279	04832	E=02
5.41012	35701	56459	E 00	4.60754	11116	75958	E=06	2.80124	12554	52977	E=03
				N# 5		N# 4					
1.09617	39695	51407	E 00	5.89281	82506	55627	E=02	1.76354	01547	84743	E=01
1.57538	46748	26850	E 00	2.51379	69171	39119	E=02	1.21481	75985	74504	E=01
2.71259	49348	80223	E 00	1.96122	45620	06942	E=03	2.95583	71355	96616	E=02
4.95729	07188	19873	E 00	3.50258	04147	76924	E=05	4.98094	92785	21989	E=03
9.13038	92093	09139	E 00	8.92884	58557	33378	E=08	8.24202	75795	33269	E=04
				N# 6		N# 4					
1.08514	66102	26112	E 00	5.46581	18091	58243	E=02	1.61757	42545	78803	E=01
1.49877	78918	86828	E 00	2.81015	74640	24964	E=02	1.25788	69855	89002	E=01
2.43715	82922	86770	E 00	3.19762	90433	38139	E=03	3.69824	23884	01879	E=02
4.18870	21008	48113	E 00	1.12039	55767	52605	E=04	7.38756	97501	47895	E=03
7.14390	71321	26490	E 00	1.13627	15249	92024	E=06	1.43893	63847	31793	E=03
1.20911	57294	21822	E 01	1.72019	02641	37619	E=09	3.88689	83229	92781	E=04
				N# 7		N# 4					
1.07673	73667	68328	E 00	5.10510	14065	62573	E=02	1.49839	28842	89764	E=01
1.44279	11624	99301	E 00	3.02472	51200	04963	E=02	1.28021	27658	51363	E=01
2.24742	83344	93513	E 00	4.51359	15175	06319	E=03	4.27137	77880	80334	E=02
3.69718	88896	43081	E 00	2.45486	02851	69718	E=04	9.89814	83988	10478	E=03
5.03549	51872	31532	E 00	5.19402	44167	74233	E=06	2.17113	20692	91234	E=03
6.60944	87138	67996	E 00	3.44550	16195	59757	E=08	5.13550	32565	95298	E=04
1.52148	54556	06086	E 01	3.34290	98668	02478	E=11	1.35472	78025	25641	E=04
				N# 8		N# 4					
1.07006	64673	88184	E 00	4.79723	07935	61907	E=02	1.39866	77938	14653	E=01
1.39973	51701	30367	E 00	3.18007	02022	77934	E=02	1.28924	85832	54188	E=01
1.10747	39506	38607	E 00	5.83852	41253	15622	E=03	4.80360	60884	40955	E=02
1.35099	16186	24433	E 00	4.35829	48145	55348	E=04	1.24446	55948	93076	E=02
1.30277	69611	99524	E 00	1.49091	01731	41990	E=05	2.99314	77516	76938	E=03
1.16721	37386	82366	E 00	2.17648	74885	29936	E=07	7.86888	15976	88920	E=04
1.22780	77043	99996	E 01	1.00825	55888	32889	E=09	2.16706	48279	93138	E=04
1.84548	63488	67178	E 01	6.56116	16076	34282	E=13	6.78931	74800	57372	E=05

X(I)	Y(I)	Z(I)=EXP(X(I))
N= 9 M= 4		
1.06461 77176 54900 E 00	4.53017 46773 37280 E-02	1.31362 84578 95575 E-01
1.36539 28411 22292 E 00	3.29180 08417 64261 E-02	1.28948 45069 21143 E-01
1.99928 78556 21254 E 00	7.13031 46364 00589 E-03	5.26487 87959 42113 E-02
3.89192 26648 62672 E 00	6.78777 23147 31618 E-04	1.49462 49164 59977 E-02
4.77490 91255 65084 E 00	3.28332 31573 75002 E-05	3.89072 30204 98679 E-03
7.18740 90335 62879 E 00	8.02421 37661 40923 E-07	1.06134 00976 80660 E-03
1.05168 96767 43181 E 01	8.58390 19151 01067 E-09	3.17040 67160 25327 E-04
1.50992 29647 46191 E 01	2.88063 00682 18869 E-11	1.03991 92234 85215 E-04
2.17816 96710 25207 E 01	1.29854 92675 09922 E-14	3.74221 83098 51709 E-05
N=10 M= 4		
1.06006 59465 86647 E 00	4.29579 38197 62609 E-02	1.24000 72371 73146 E-01
1.33723 87777 92499 E 00	3.37089 85744 99024 E-02	1.28381 10446 33413 E-01
1.91275 40692 49135 E 00	8.36503 93815 63988 E-03	5.66456 45147 68660 E-02
2.88972 24906 81855 E 00	9.67292 97926 52563 E-04	1.73999 72726 35032 E-02
4.37346 24336 71185 E 00	6.18313 55036 80396 E-05	4.84087 21646 26837 E-03
6.46735 46002 07094 E 00	2.16331 59889 15239 E-06	1.39269 81515 75810 E-03
9.29367 09163 09595 E 00	4.08252 66694 43968 E-08	4.35035 03121 91771 E-04
1.38362 38795 53128 E 01	3.24014 93503 69880 E-10	1.48637 40967 69398 E-04
1.88385 84234 51776 E 01	8.07551 89668 86667 E-13	5.51096 98607 15433 E-05
2.51757 36125 15466 E 01	2.58653 94563 62553 E-16	2.22025 25869 03765 E-05

X(I)	W(I)	W(I)*EXP(X(I))
N= 2 M= 5		
1.14201 29392 08461 E 00	6.41871 19090 29518 E=02	2.01102 65382 82335 E=01
2.03681 87875 42191 E 00	6.26711 83714 25221 E=03	4.88084 93349 81844 E=02
N= 3 M= 5		
1.10978 19962 16258 E 00	5.78527 83701 57894 E=02	1.75907 81432 78931 E=01
1.71141 76029 87995 E 00	1.24405 46420 54531 E=02	6.88808 78488 16487 E=02
3.52714 43059 69048 E 00	1.68907 33959 61471 E=04	5.47313 91764 52597 E=03
N= 4 M= 5		
1.09157 38627 37671 E 00	5.27930 18785 43432 E=02	1.57268 23867 91738 E=01
1.56309 05929 38494 E 00	1.69898 42222 82161 E=02	8.11018 88078 08626 E=02
2.78635 79220 72239 E 00	6.68685 82366 53491 E=04	1.88472 95384 78389 E=02
5.63015 32851 54441 E 00	2.69150 93991 17780 E=06	7.50136 68479 26896 E=04
N= 5 M= 5		
1.07955 09117 68730 E 00	4.87273 79879 79376 E=02	1.43422 89546 89845 E=01
1.47453 31886 67942 E 00	2.02734 82938 98806 E=02	8.05747 61814 32423 E=02
2.42451 46394 13205 E 00	1.43235 89772 72225 E=03	1.61889 83874 84465 E=02
4.37449 88827 11851 E 00	2.09823 53593 14869 E=05	5.86598 64844 39396 E=03
8.16894 55855 46955 E 00	4.13120 81280 78924 E=06	1.45915 96119 16873 E=04
N= 6 M= 5		
1.07086 91132 77885 E 00	4.53814 45473 54614 E=02	1.32428 63261 78011 E=01
1.41435 26807 45195 E 00	2.26639 76864 14526 E=02	9.32355 78010 21287 E=02
2.20225 86244 25576 E 00	2.33962 75128 15282 E=03	2.11829 19874 13123 E=02
3.72100 31856 85193 E 00	6.81420 95133 64991 E=05	2.81466 44840 35603 E=03
6.38565 43497 52412 E 00	5.45472 89521 82603 E=07	3.23613 76462 91942 E=04
1.09975 75228 29663 E 01	6.43984 87563 64818 E=10	3.84646 68517 62888 E=05
N= 7 M= 5		
1.06422 84454 17070 E 00	4.25881 58032 32033 E=02	1.28388 11169 42962 E=01
1.37017 97916 83609 E 00	2.44211 59582 25326 E=02	9.61231 87928 12487 E=02
2.04917 74898 98971 E 00	3.31128 85382 99668 E=03	2.57885 92035 85614 E=02
3.30652 17793 32372 E 00	1.51878 85985 44682 E=04	4.18294 79323 38167 E=03
5.40568 45283 60482 E 00	2.55582 29117 82178 E=06	5.68923 45246 88826 E=04
8.71384 86404 68995 E 00	1.34276 88373 59756 E=08	8.18632 13582 78717 E=05
1.40227 43620 83105 E 01	1.04004 82395 34642 E=11	1.27952 95446 53854 E=05
N= 8 M= 5		
1.05894 15746 85030 E 00	4.81582 74833 72852 E=02	1.19789 85819 83885 E=01
1.33685 42858 97783 E 00	2.57200 26218 14981 E=02	9.78390 91389 17851 E=02
1.93885 36134 81952 E 00	4.29715 42852 23953 E=03	2.97859 44553 45518 E=02
3.01582 75399 28817 E 00	2.71213 79948 16661 E=04	5.58438 88488 41603 E=03
4.76380 22394 44069 E 00	7.48157 74929 25916 E=06	8.76771 85836 12899 E=04
7.40237 92027 44267 E 00	8.72210 36618 85858 E=08	1.48832 15884 95556 E=04
1.12732 55950 98587 E 01	3.26436 93977 58897 E=10	2.58869 28988 41289 E=05
1.71869 36894 89228 E 01	1.73768 18311 22426 E=13	5.06813 18758 34839 E=06

x(i)	w(i)	w(i)=EXP(x(i))
	N= 9 M= 5	
1.05460 68634 85648 E 00	3.80635 95086 06670 E-02	1.09274 73102 28271 E-01
1.30871 21299 60588 E 00	2.66801 65445 16079 E-02	9.87540 63478 28000 E-02
1.84845 71951 50168 E 00	5.26676 97683 43862 E-03	3.34440 67650 07053 E-02
2.79874 35875 75599 E 00	4.26607 71278 54078 E-04	7.00660 44291 91738 E-03
4.30411 11847 20862 E 00	1.67674 42695 06520 E-05	1.24084 79506 80830 E-03
6.51949 62973 34368 E 00	3.29148 09528 00004 E-07	2.23240 30796 98383 E-04
9.64185 16198 13852 E 00	2.85864 46686 41389 E-09	4.46112 00628 38813 E-05
1.40080 44743 88445 E 01	7.92563 90017 51179 E-12	9.68839 44041 49647 E-06
2.04536 93699 40246 E 01	2.98640 63885 02471 E-15	2.28073 69704 57627 E-06
	N=10 M= 5	
1.05097 18714 88900 E 00	3.62205 74344 08206 E-02	1.03606 40796 28920 E-01
1.28819 90127 67173 E 00	2.73852 52578 31870 E-02	9.91873 54767 37264 E-02
1.77817 86102 54949 E 00	6.20222 82694 66774 E-03	3.67113 49068 47867 E-02
2.62944 03687 83883 E 00	6.13882 33831 82118 E-04	6.58821 48588 27624 E-03
3.95588 34004 35149 E 00	3.16681 26712 88874 E-05	1.65440 07026 45983 E-03
5.87456 42415 14960 E 00	9.04061 46599 42181 E-07	3.22439 68952 90831 E-04
8.51712 07304 08942 E 00	1.36519 62872 08844 E-08	6.82528 68509 65069 E-05
1.20788 95576 10761 E 01	9.16003 15929 83514 E-11	1.60036 56622 59110 E-05
1.68772 63610 85909 E 01	1.92535 52972 89223 E-13	4.11351 74124 78641 E-06
2.37989 17390 91873 E 01	5.24972 36893 82018 E-17	1.13729 97329 18385 E-06

X(I)	W(I)	W(I)=EXP(X(I))
N# 2 M# 6		
1.11808 99502 27950 E 00	5.40783 09544 98888 E-02	1.65425 86073 53650 E-01
1.84766 40820 94060 E 00	5.40673 11969 55509 E-03	3.43856 05873 42226 E-02
N# 3 M# 6		
1.09156 02125 28696 E 00	4.87307 42283 60765 E-02	1.45164 89480 55662 E-01
1.59678 74182 63620 E 00	1.06235 36579 56294 E-02	5.19280 64711 08254 E-02
3.09267 41021 38804 E 00	1.30761 87877 37924 E-04	2.88145 90285 96629 E-03
N# 4 M# 6		
1.07672 90638 47727 E 00	4.45390 73021 28107 E-02	1.30725 00432 84866 E-01
1.46807 15612 37983 E 00	1.44044 76768 20128 E-02	6.25277 59252 97025 E-02
2.48652 95623 46823 E 00	5.39666 89384 58249 E-04	6.48652 12453 14888 E-03
4.94648 55534 89421 E 00	1.82405 86162 18075 E-06	2.58687 98778 46435 E-04
N# 5 M# 6		
1.06698 46604 54224 E 00	4.12098 96636 81434 E-02	1.19788 76308 96293 E-01
1.39722 25270 78930 E 00	1.71126 54804 97552 E-02	6.92827 61227 72612 E-02
2.19300 62018 52103 E 00	1.14801 92166 82201 E-03	1.82886 79710 36852 E-02
3.87238 79360 38803 E 00	1.44478 13134 59084 E-05	6.94318 64582 83732 E-04
7.28612 40184 57492 E 00	2.22772 17729 74010 E-08	3.25225 36157 32488 E-05
N# 6 M# 6		
1.05995 82778 71962 E 00	3.84880 20001 83391 E-02	1.11086 88978 39179 E-01
1.34899 04014 88809 E 00	1.98831 88458 81235 E-02	7.35376 97327 68172 E-02
2.01302 36202 42815 E 00	1.86629 84345 83379 E-03	1.30709 56550 26110 E-02
3.32133 77292 18529 E 00	4.72293 43172 27887 E-05	1.30812 89411 68563 E-03
5.78043 11061 10350 E 00	3.84135 35170 72740 E-07	9.89553 36437 07585 E-05
9.98609 87822 77819 E 00	2.78190 75959 44932 E-10	5.92330 92537 27616 E-06
N# 7 M# 6		
1.05458 08794 09558 E 00	3.62060 47678 65744 E-02	1.83939 29712 41194 E-01
1.31348 63307 60486 E 00	2.05384 35426 58337 E-02	7.63855 92467 62745 E-02
1.88893 17617 93961 E 00	2.63371 31448 02883 E-03	1.74149 85898 67938 E-02
2.97486 19051 67866 E 00	1.05185 78756 67873 E-04	2.85861 62998 65434 E-03
4.84196 36004 27967 E 00	1.45273 77613 27295 E-06	1.86887 92336 98561 E-04
7.87829 75526 95576 E 00	6.04296 84490 92451 E-09	1.59486 61876 04783 E-05
1.28800 18913 72972 E 01	3.68420 67474 71292 E-12	1.44565 65712 88268 E-06
N# 8 M# 6		
1.05029 27865 13718 E 00	3.42541 10689 98118 E-02	9.79149 61466 43325 E-02
1.28596 62040 08743 E 00	2.16244 02234 52734 E-02	7.82405 83716 79652 E-02
1.79704 88635 23047 E 00	3.41258 36918 95875 E-03	2.09840 92889 96815 E-02
2.73117 58538 37859 E 00	1.89586 68495 92402 E-04	2.91033 81859 82594 E-03
4.28441 73197 93442 E 00	4.31717 38884 24289 E-06	3.15255 17769 19628 E-04
6.69623 60771 87250 E 00	4.03068 82777 48319 E-08	3.28225 26310 81488 E-05
1.03196 62142 65769 E 01	1.20667 82880 75115 E-10	3.69981 16358 59811 E-06
1.59589 71991 81478 E 01	5.17278 28549 54911 E-14	4.41181 93454 79537 E-07

X(I)	M(I)	M(I)*EXP(X(I))
N= 9 M= 6		
1.04676 92445 29585 E 00	3.25575 48413 14015 E-02	9.27380 16259 67279 E-02
1.26383 91337 80384 E 00	2.24379 26791 36109 E-02	7.94674 20563 35272 E-02
1.72569 81976 13704 E 00	4.18022 83013 81674 E-03	2.34770 66715 41314 E-02
2.54494 62288 87310 E 00	2.99384 13753 89327 E-04	3.83403 75942 33524 E-03
3.88716 90044 62250 E 00	9.79667 35882 84661 E-06	4.77809 39739 63386 E-04
5.98666 44072 38755 E 00	1.95334 92044 61802 E-07	5.78822 26370 59173 E-05
8.81731 07671 45737 E 00	1.08762 12202 98180 E-09	7.34153 85936 38471 E-06
1.29599 67073 90518 E 01	2.45961 99929 36681 E-12	1.04504 85874 84925 E-06
1.91986 46088 60339 E 01	7.63233 05444 47007 E-16	1.59843 97614 90673 E-07
N=10 M= 6		
1.04380 71199 56984 E 00	3.10637 34189 50477 E-02	8.82212 75706 28950 E-02
1.24599 61321 87403 E 00	2.38465 24658 49361 E-02	8.08836 62174 76665 E-02
1.68822 87833 32196 E 00	4.92332 48130 43639 E-03	2.41072 38632 56683 E-02
2.48856 94640 82128 E 00	4.32388 67895 48208 E-04	4.88642 73468 39421 E-03
3.58718 51064 71061 E 00	1.87084 51622 18290 E-05	6.79977 96991 89667 E-04
5.33321 12118 94416 E 00	4.35483 49811 93398 E-07	9.01729 16003 78452 E-05
7.78937 61906 88212 E 00	5.31751 88208 81909 E-09	1.28408 00996 32048 E-05
1.11487 34388 43838 E 01	2.92572 89166 57149 E-11	2.03266 91881 43031 E-06
1.97919 14037 82214 E 01	5.11988 70539 39412 E-14	3.55001 12237 23068 E-07
2.24497 59304 79814 E 01	1.17253 93642 25068 E-17	6.59071 11851 28801 E-08

X(I)	M(I)	h(I)=EXP(X(I))
N= 2 M= 7		
1.10038 37755 14188 E 00	4.65820 76969 20739 E-02	1.30994 00892 04119 E-01
1.70788 79984 44888 E 09	4.81698 97690 42270 E-03	2.69767 61395 83547 E-02
N= 3 M= 7		
1.07743 58100 36499 E 00	4.18998 47500 42257 E-02	1.23114 89158 86913 E-01
1.49269 21634 35162 E 03	9.38397 56342 44563 E-03	4.17498 42476 16854 E-02
2.74633 75634 34035 E 08	1.15243 68356 29198 E-04	1.79812 21220 33648 E-03
N= 4 M= 7		
1.96538 61067 80490 E 00	3.82993 81968 64214 E-02	1.11143 24915 49007 E-01
1.39522 85897 27111 E 00	1.26289 67306 42544 E-02	5.09692 11666 66362 E-02
2.24793 35994 63148 E 00	4.69308 73857 37804 E-04	4.44348 58223 88792 E-03
4.35867 19421 58513 E 00	1.46872 46082 97341 E-06	1.18996 43946 32712 E-04
N= 5 M= 7		
1.05727 20910 88999 E 00	3.54794 33987 33604 E-02	1.02127 83062 25176 E-01
1.33722 94471 31747 E 00	1.49219 25565 22755 E-02	5.68298 14998 28248 E-02
2.00799 06204 86134 E 00	9.86477 56835 24119 E-04	7.36761 68963 29727 E-03
3.44667 80853 97623 E 00	1.12165 89621 48588 E-05	3.58155 19875 58168 E-04
6.48658 38232 79597 E 03	1.39357 12168 26089 E-08	9.14569 93072 83710 E-06
N= 6 M= 7		
1.05144 54574 64772 E 00	3.31942 71420 49324 E-02	9.49948 58674 82399 E-02
1.29776 46616 18631 E 00	1.65788 83596 88158 E-02	6.88967 19326 84916 E-02
1.86099 24084 83695 E 00	1.58920 65926 38972 E-03	1.88187 81081 84633 E-02
2.98423 91429 88467 E 00	3.65895 84327 90599 E-05	7.25427 67468 47704 E-04
5.08946 43117 63047 E 03	1.95485 74799 88829 E-07	3.17279 02833 33838 E-05
9.08197 41215 79608 E 03	1.38959 96218 23549 E-10	1.18822 93889 49325 E-06
N= 7 M= 7		
1.04699 34272 67302 E 00	3.12886 71818 32847 E-02	8.91436 87713 19841 E-02
1.26868 44214 42165 E 00	1.78003 36186 81961 E-02	6.53018 48424 22159 E-02
1.75951 53447 57922 E 00	2.22784 39856 57838 E-03	1.29429 28847 49132 E-03
2.69413 85747 64658 E 00	8.12658 09668 82459 E-05	1.28214 64635 84181 E-03
4.34364 57710 93546 E 00	9.45876 68741 48196 E-07	7.28208 78894 24593 E-05
7.18842 99723 53612 E 00	3.14040 76177 98691 E-09	3.88829 13224 12167 E-06
1.17911 96844 84023 E 01	1.49269 64639 65764 E-12	1.97160 92753 88370 E-07
N= 8 M= 7		
1.04344 36142 94935 E 00	2.96636 76324 14348 E-02	8.48144 81289 61254 E-02
1.24610 12461 25668 E 00	1.87135 15933 89321 E-02	6.58624 31814 53828 E-02
1.68420 83738 53707 E 00	2.87286 18547 84515 E-03	1.84795 87752 78847 E-02
2.49153 12603 13942 E 00	1.46156 42913 87807 E-04	1.74953 44728 74865 E-03
3.86285 83815 82400 E 00	2.83470 41124 36596 E-06	1.34888 37278 77210 E-04
6.05051 63885 10709 E 00	2.14418 71665 94814 E-08	9.89847 42867 87116 E-06
9.42073 83447 54794 E 00	5.18962 45983 82734 E-11	6.38614 89347 58118 E-07
1.47745 95396 93611 E 01	1.73956 59488 26781 E-14	4.98986 23584 12281 E-08

X(I)				W(I)				W(I)*EXP(X(I))			
				N= 9	M= 7						
1.04052	44002	76050	E 00	2.82535	25330	96901	E=02	7.99772	84336	47628	E=02
1.22790	15314	19293	E 06	1.94014	62402	32490	E=02	6.62377	80797	34631	E=02
1.62553	85668	96984	E 00	3.56782	42985	16786	E=03	1.78197	33495	42077	E=02
2.34032	96468	58022	E 00	2.36474	93810	83172	E=04	2.39340	37021	63853	E=03
3.52171	76234	85775	E 00	6.47522	01561	66836	E=06	2.19137	85511	99376	E=04
5.34959	95851	54795	E 00	8.40735	38888	31774	E=08	1.76894	66192	29393	E=05
8.04577	41756	86021	E 00	4.73779	34261	88423	E=10	1.47846	63627	32568	E=06
1.19568	83106	02157	E 01	8.64829	27818	25324	E=13	1.34815	16191	22432	E=07
1.78994	18220	42110	E 01	2.17822	27508	08297	E=16	1.29336	42489	09539	E=08
				N=10	M= 7						
1.03806	70826	99814	E 00	2.70126	55649	51651	E=02	7.62770	79437	59043	E=02
1.21282	56016	36634	E 00	1.99207	19782	60649	E=02	6.69928	95997	66999	E=02
1.57820	62120	96140	E 00	4.12045	86510	50087	E=03	1.99687	62747	43290	E=02
2.22225	51391	63491	E 00	3.32556	74729	38105	E=04	3.06887	29418	19085	E=03
3.24460	09200	46013	E 00	1.24364	97100	73796	E=05	3.25485	08212	39620	E=04
4.84324	41409	49125	E 00	2.39032	01297	72605	E=07	3.83284	94880	79999	E=05
7.11217	29410	82923	E 00	2.36885	66722	98419	E=09	2.98515	66449	91813	E=06
1.02722	70873	09411	E 01	1.05979	10888	78685	E=11	3.86485	88100	77187	E=07
1.46651	45011	29194	E 01	1.52556	17042	08790	E=14	3.56797	11402	80620	E=08
2.11385	21389	98337	E 01	2.89485	96425	06555	E=18	4.35006	90473	36569	E=09

X(I)	M(I)	N(I)=EXP(X(I))
	N= 2 M= 8	
1.08691 46264 79287 E 00	4.08323 76421 45279 E=02	1.21972 94820 31987 E=01
1.60255 54648 43335 E 00	4.37910 54400 31877 E=03	2.17453 49768 67728 E=02
	N= 3 M= 8	
1.06726 02577 60376 E 00	3.66260 40013 71130 E=02	1.06486 66020 07482 E=01
1.42062 40560 88275 E 00	8.47819 19685 47998 E=03	3.98071 97076 16177 E=02
2.47297 13091 77862 E 00	1.07250 07962 53692 E=04	1.27173 14652 82424 E=03
	N= 4 M= 8	
1.05653 84158 00111 E 00	3.34460 36542 81240 E=02	9.68040 74829 10689 E=02
1.33860 89748 62706 E 00	1.13342 58676 37164 E=02	4.38258 96893 26588 E=02
2.05877 96235 10133 E 00	4.29975 15828 80872 E=04	3.36945 75941 64483 E=03
3.86222 05253 94625 E 00	1.21168 44125 30879 E=06	5.78488 77480 25688 E=05
	N= 5 M= 8	
1.04961 99326 43391 E 00	3.09919 80696 92906 E=02	8.89306 14298 02940 E=02
1.29084 71858 34693 E 00	1.33187 21921 47751 E=02	4.83863 57032 93270 E=02
1.86020 28655 24881 E 00	8.91166 85116 32040 E=04	5.78578 27173 99323 E=03
3.09056 25567 55855 E 00	9.60257 75081 00347 E=06	2.11155 34812 53744 E=04
5.77307 66598 19184 E 00	1.08148 06799 05479 E=08	3.28001 91309 91526 E=06
	N= 6 M= 8	
1.04468 29779 39722 E 00	2.90240 27979 43795 E=02	8.29807 19612 83293 E=02
1.25789 51589 90601 E 00	1.47366 65078 24383 E=02	5.18022 59622 67906 E=02
1.73867 40688 85889 E 00	1.41961 60585 41837 E=03	8.87732 31363 03922 E=03
2.70278 37875 87599 E 00	3.10297 62257 30467 E=05	4.63801 64375 83204 E=04
4.55202 82965 11947 E 00	1.43103 20990 23320 E=07	1.38696 96865 56010 E=05
8.10997 26389 70260 E 00	8.01946 40501 56194 E=11	2.68846 62254 99764 E=07
	N= 7 M= 8	
1.04092 38024 27112 E 00	2.73942 72138 67248 E=02	7.79759 72618 39180 E=02
1.23283 50736 91302 E 00	1.97753 63685 12947 E=02	5.41243 69461 22586 E=02
1.65471 94475 72839 E 00	1.97282 79544 35766 E=03	1.03210 70398 70967 E=02
2.46026 28137 77962 E 00	6.83284 37519 88484 E=05	7.99888 03942 79125 E=04
3.90838 86474 81148 E 00	8.95967 02936 67895 E=07	3.46721 11342 98963 E=05
6.40577 39440 72616 E 00	1.87840 78066 91770 E=09	1.13705 68825 81085 E=06
1.07688 56919 93417 E 01	8.93892 40305 12625 E=13	3.27894 25292 82194 E=08
	N= 8 M= 8	
1.03793 12671 77025 E 00	2.68186 74380 47155 E=02	7.36477 63619 15698 E=02
1.21398 84771 24117 E 00	1.65497 98201 88874 E=02	5.57211 68886 79777 E=02
1.59231 12984 87368 E 00	2.52694 92827 57994 E=03	1.24201 98472 78873 E=02
2.29096 53705 81874 E 00	1.21998 84812 55482 E=04	1.28588 66888 72822 E=03
3.49603 22482 23708 E 00	2.88985 97631 89961 E=06	6.88862 12362 41217 E=05
5.46597 94660 95562 E 00	1.38649 26665 88695 E=08	3.88995 17411 78767 E=06
8.57967 56459 16396 E 00	2.48244 23924 77875 E=11	1.32124 98822 84888 E=08
1.36376 43582 53935 E 01	6.63868 97458 27874 E=15	5.59694 82481 13858 E=09

X(I)	W(I)	W(I)*EXP(X(I))
	N=9 M=8	
1.03947 14820 02922 E 00	2.48133 36739 61017 E-02	6.98851 20792 69644 E-02
1.19078 34992 90703 E 00	1.71332 93415 35342 E-02	5.60153 79402 05553 E-02
1.94358 44614 25919 E 00	3.06073 64982 78818 E-03	1.43657 99891 28143 E-02
2.16451 83961 08152 E 00	1.91288 52784 27124 E-04	1.66620 07293 78302 E-03
3.20434 70433 36395 E 00	4.77478 19065 30983 E-06	1.17647 79138 05404 E-04
4.84884 12509 88363 E 00	5.18622 07290 38667 E-08	6.61193 47645 28460 E-06
7.32932 65509 43003 E 00	2.36347 86307 74631 E-10	3.60278 01158 26843 E-07
1.10830 93202 35035 E 01	3.49791 34776 88381 E-13	2.07681 02588 79902 E-08
1.66790 98115 81840 E 01	6.97077 01841 27670 E-17	1.22157 75276 65163 E-09
	N=10 M=8	
1.03340 02665 98125 E 08	2.37614 59115 68183 E-02	6.67841 09449 61803 E-02
1.18616 91608 65990 E 00	1.75749 40415 99369 E-02	5.75493 71161 40243 E-02
1.50417 84714 84471 E 00	3.59897 14758 19233 E-03	1.61610 05027 50547 E-02
2.06962 68614 94100 E 00	2.74786 67989 25706 E-04	2.18813 34911 31443 E-03
2.98487 07550 07090 E 00	9.17432 37899 39776 E-06	1.81504 31656 37876 E-04
4.40374 02208 10881 E 00	1.48845 94996 87210 E-07	1.21690 61888 72581 E-05
6.48675 39470 05706 E 00	1.20454 64815 13155 E-09	7.90651 33482 28370 E-07
9.44390 81280 85334 E 00	4.36583 70288 78818 E-12	5.51448 17885 71833 E-08
1.36196 72457 48914 E 01	5.11551 41593 39161 E-15	4.20569 60707 26114 E-09
1.98436 82511 21142 E 01	7.93560 28721 67671 E-19	3.29292 42562 45770 E-10

X(I)			W(I)			W(I)*EXP(X(I))			
				№ 2	M = 9				
1.07641	58691	72331	E 00	3.63000	96813	12831 E=02	1.86909	72872	84114 E=01
1.52166	51886	46193	E 00	4.03339	88755	46401 E=03	1.86723	42299	25063 E=02
				№ 3	M = 9				
1.05894	65788	19871	E 00	3.24529	82619	10942 E=02	9.35727	24421	66068 E=02
1.36454	40787	56731	E 00	7.77728	30487	60829 E=03	3.84398	05197	92088 E=02
2.25770	96873	82620	E 00	1.03229	22882	44582 E=04	9.86691	71756	67352 E=04
				№ 4	M = 9				
1.04951	29252	88524	E 00	2.95834	42256	28909 E=02	8.44979	89980	89720 E=02
1.29396	59081	65753	E 00	1.03411	36814	92586 E=02	3.77164	26454	53254 E=02
1.90859	51517	21337	E 00	4.87783	83904	11788 E=04	2.74993	45199	69483 E=03
3.44908	43489	55158	E 00	1.13197	93385	85713 E=06	3.58251	57813	68452 E=05
				№ 5	M = 9				
1.04349	02489	59105	E 00	2.74004	80840	82249 E=02	7.77929	50874	94149 E=02
1.25243	82460	17680	E 00	1.28906	39812	31849 E=02	4.23034	97414	83793 E=02
1.74174	26706	83334	E 00	8.33983	81271	58832 E=04	4.75704	82881	24404 E=03
2.79560	88293	79136	E 00	8.86387	78923	83952 E=06	1.49111	56136	60755 E=04
5.14582	48026	29569	E 00	8.14574	62606	88702 E=09	1.39873	09810	44211 E=06
				№ 6	M = 9				
1.03922	62067	87345	E 00	2.56696	54361	42822 E=02	7.25688	47858	83412 E=02
1.22439	12749	04695	E 00	1.33232	19505	82129 E=02	4.53268	51963	46098 E=02
1.63981	34188	94544	E 00	1.31227	73882	31214 E=03	6.76375	02776	61795 E=03
2.46936	48920	69126	E 00	2.82261	78692	37059 E=05	3.33490	62760	01849 E=04
4.08530	65374	59681	E 00	1.17401	29350	08028 E=07	6.98869	98982	65869 E=06
7.29393	27605	87236	E 00	5.32281	12252	47753 E=11	7.85169	58577	13270 E=08
				№ 7	M = 9				
1.03599	56940	32346	E 00	2.42477	79414	85582 E=02	6.83288	75028	13098 E=02
1.20379	70002	55088	E 00	1.42173	89741	87527 E=02	4.73829	88288	59292 E=02
1.56942	12257	63525	E 00	1.88640	86782	40356 E=03	8.67770	86693	88590 E=03
2.26574	92763	87176	E 00	6.13543	79202	67708 E=05	5.91354	99380	14877 E=04
3.53229	46421	89246	E 00	5.69389	87592	44821 E=07	1.94744	77412	60470 E=05
5.77146	12741	11382	E 00	1.28427	41163	16916 E=09	4.12260	29879	36261 E=07
9.79344	12030	68758	E 00	3.76544	25891	49109 E=13	6.65881	62128	28246 E=09
				№ 8	M = 9				
1.03343	16849	24906	E 00	2.30473	16964	82782 E=02	6.47789	66973	95192 E=02
1.18781	68780	79351	E 00	1.48798	84942	29671 E=02	4.88046	88861	28103 E=02
1.51705	65890	32186	E 00	2.29618	68505	47896 E=03	1.84678	28865	81343 E=02
2.12361	20840	35988	E 00	1.88396	43458	54983 E=04	9.86333	44686	88746 E=04
3.17972	04452	24114	E 00	1.78864	02146	08874 E=06	4.88836	45361	31767 E=05
4.94221	48631	28979	E 00	9.04239	15898	17625 E=09	1.28665	97022	95482 E=06
7.79919	60422	68241	E 00	1.38283	88339	47765 E=11	3.37222	75658	85863 E=08
1.25520	88692	69494	E 01	2.88554	78824	14194 E=15	8.15781	82583	91520 E=10

x(i)			w(i)			w(i)*EXP(X(I))			
No 2 M=10									
1.06805	38708	50371	E 00	3.26457	89602	65315 E-02	9.49898	23304	22299 E-02
1.45830	70482	14493	F 00	3.74820	44287	63249 E-03	1.61123	16097	23818 E-02
No 3 M=10									
1.05229	37465	10819	E 00	2.90830	50306	41699 E-02	8.33000	61485	46703 E-02
1.37019	43692	92587	E 00	7.20966	55761	46573 E-03	2.69940	62920	61918 E-02
2.08754	63338	27951	F 00	1.01278	14885	28409 E-04	8.16820	21416	08527 E-04
No 4 M=10									
1.04384	67470	09008	E 00	2.64589	16280	95927 E-02	7.51238	09568	17680 E-02
1.25827	06561	10774	E 00	9.54674	22573	47769 E-03	3.39981	37286	18747 E-02
1.78870	16467	39520	E 00	3.95214	13241	40033 E-04	2.36404	49013	08061 E-03
3.10886	59445	57783	E 00	1.12136	06953	58789 E-06	2.51135	81590	84875 E-05
No 5 M=10									
1.03850	87099	51203	E 00	2.44740	54792	49076 E-02	6.91392	28666	20841 E-02
1.22287	18703	28873	E 00	1.11133	46698	81459 E-02	3.77210	63862	27159 E-02
1.64620	15450	68240	E 00	7.97946	26662	41036 E-04	4.13913	78866	44319 E-03
2.55277	32979	29203	F 00	8.63891	67218	57661 E-06	1.10946	74519	90852 E-04
4.60221	35223	64068	F 00	7.35756	50890	73195 E-09	7.33584	33717	42701 E-07
No 6 M=10									
1.03476	24508	67542	F 00	2.29246	16495	72112 E-02	6.48199	82378	99841 E-02
1.19777	15640	53094	F 00	1.21997	67235	91035 E-02	4.84144	92124	08238 E-02
1.55938	48120	08890	F 00	1.24245	99787	43079 E-03	5.90900	81979	31317 E-03
2.27642	30628	43424	E 00	2.78444	44112	04198 E-05	2.63460	81671	88261 E-04
3.68456	34657	75428	E 00	1.05936	64737	76286 E-07	4.21921	64522	37188 E-06
6.55626	78353	39084	E 00	4.02824	30408	87949 E-11	2.83443	56929	19395 E-08
No 7 M=10									
1.03194	19472	52917	F 00	2.16629	38832	62930 E-02	6.07972	88367	61811 E-02
1.18100	26924	68866	F 00	1.29783	47897	88633 E-02	4.22365	14314	75715 E-02
1.49952	28947	30489	E 00	1.69429	27743	76889 E-03	7.58967	14726	66529 E-03
2.10422	83353	19119	E 00	5.79047	14269	19998 E-05	4.74863	37803	25826 E-04
3.21023	01896	88812	E 00	5.88819	03989	66353 E-07	1.26189	73444	27837 E-05
5.20515	83385	79400	E 00	9.93072	66068	87388 E-10	1.88947	49274	78802 E-07
8.89296	83618	03711	E 00	2.27085	36575	49195 E-13	1.65273	49459	66974 E-09
No 8 M=10									
1.02971	24625	83080	E 00	2.86044	94132	86632 E-02	5.76979	51849	15482 E-02
1.16624	82358	24886	E 00	1.35580	41600	39046 E-02	4.34948	46148	29429 E-02
1.45501	01787	06288	E 00	2.13693	76713	83862 E-03	9.19576	73134	58475 E-03
1.98402	90781	07788	E 00	1.01009	79838	57789 E-04	7.34541	98001	00197 E-04
2.90892	14002	98386	E 00	1.50379	29042	15222 E-06	2.75750	44926	51696 E-05
4.47754	58193	97442	E 00	7.82748	22445	29738 E-09	6.18947	78352	23493 E-07
7.08130	93255	96665	F 00	8.86209	58947	16410 E-12	1.84703	11945	99471 E-08
1.15219	17773	93954	E 01	1.43185	23775	60994 E-15	1.44478	61014	05964 E-10

X(I)			W(I)			W(I)*EXP(X(I))					
			N= 9	M=10							
1.02788	73508	28369	E 00	1.96960	47733	65554 E-02	5.50534	94714	00518	E-02	
1.15516	63251	43744	E 00	1.39765	86424	48086 E-02	4.43691	37776	06455	E-02	
1.42819	37581	17657	E 00	2.56267	24893	18271 E-03	1.04641	39155	02787	E-02	
1.89487	85295	85350	E 00	1.85351	99805	56827 E-04	1.03253	47974	69442	E-03	
2.69650	39317	49824	E 00	3.38721	80141	88977 E-06	5.82249	98027	26693	E-05	
4.08518	78951	29368	E 00	2.88884	61597	57105 E-08	1.54111	56987	57809	E-06	
6.06684	98279	78964	E 00	8.73483	58884	12481 E-11	3.76750	47174	64019	E-08	
9.25397	85497	78887	E 00	8.19677	83042	79781 E-14	8.58239	88715	04259	E-10	
1.43684	92241	48826	E 01	1.82743	24099	12332 E-17	1.78611	88328	48529	E-11	
				N=10	M=10						
1.02635	37692	81198	E 00	1.88024	39089	65691 E-02	5.27542	78972	56094	E-02	
1.14597	12494	98312	E 00	1.42972	91841	84666 E-02	4.48720	59854	27667	E-02	
1.39196	18214	86976	E 00	2.96811	82166	54644 E-03	1.19399	58668	36438	E-02	
1.82351	43750	75339	E 00	2.19638	88953	13339 E-04	1.38034	98058	35910	E-03	
2.53676	78185	87910	E 00	6.42561	54222	62388 E-06	8.12117	88511	82793	E-05	
3.66799	86910	65975	E 00	8.88888	17092	88873 E-08	3.16521	37509	04858	E-06	
5.39292	91452	82528	E 00	4.57192	55870	42034 E-10	1.08512	14060	95795	E-07	
7.93982	21780	94323	E 00	1.89410	94748	24117 E-12	3.87101	35870	87856	E-09	
1.16637	88866	31522	E 01	8.31515	48291	47688 E-16	9.64831	78862	86070	E-11	
1.73780	12373	84836	E 01	8.38638	78527	58913 E-20	2.92810	78649	59186	E-12	

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The editorial committee would welcome readers' comments about this microfiche feature. Please send comments to Professor Eugene Isaacson, MATHEMATICS OF COMPUTATION, Courant Institute of Mathematical Sciences, New York University, 251 Mercer Street, New York, New York 10012.

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