alternate terms, only half the terms are needed. The terms of odd rank are computed, and from twice the sum of these the appropriate value of the probability integral is subtracted."

The computation was started at x = 1.9 to enable a check to be made with some of Dawson's results; for x = 1.92, the authors found that I = 12.70733, instead of Dawson's value 12.703175. For other Dawson errors see MTE 46. The values of the key arguments were computed $\ge 10S$, and to 7D for the intermediate ones, except at the extreme end of the table.

The integral I appears in problems of mathematical physics, hydrodynamics, etc. H.B. has supplied the following references (the authors of the table under review make no acknowledgment that information concerning references 4-5 below was supplied to them):

- 1. K. TERAZAWA, R. So. London, Proc., v. 92A, 1916, p. 68; $g(x) = e^{-x^2} \int_0^x e^{t^2} dt$, as well as its first and second derivatives, are tabulated, $x = [0(.1)1(1)3, 5, 10; 3-5D], x^2 = 2, 3, 5, 7$.
- 2. K. TERAZAWA, Tôhoku Univ., Sci. Reports, v. 6, 1917, p. 172-173; tables of g(x) and first four derivatives $x = [0(.1)1, 4, 5, 10; 3-5D], x^2/2 = .6(.2)6$. These functions arise in consideration of the oscillation of a deep-sea surface caused by a local disturbance.
- 3. E. E. WATSON, *Phil. Mag.*, s. 7, v. 3, 1927, p. 850, graph of $F(R) = \int_{1}^{R} dx (\ln x)^{\frac{1}{2}} = 2 \int_{0}^{(\ln R)^{\frac{1}{2}}} e^{t^{2}} dt$, 0 < R < 7; in discussing the dispersion of an electron beam.
- 4. N. KAPZOV & S. GWOSDOWER, Z. f. Physik, v. 45, 1927, p. 133, the function $x \cdot e^{-x^2} \int_{0}^{x} e^{t^2} dt$ is tabulated for $x = [.1, .5, .8(.2)1.2(.05) 2.2; 5D]; \Delta, 1.5-2.2$. The use for such a table arises in discussion of oscillations in electron tubes.
- 5. S. SAKOMOTO, Sächs. Akad. d. Wissen., Berichte ü. d. Verh., math.-phys. Kl., v. 80, 1928, p. 217–223, who gives tables of g(x) and g(x)/x for x = [0(.01)10; 4D]; they were needed in a problem of heat conduction under certain boundary conditions.
- 6. W. L. MILLER & A. R. GORDON, J. Phys. Chem., v. 35, 1931, p. 2878-2882, g(x) for x = 0(.01)4(.05)7.5(.1)10(.2)12; 0-1.99; 6D, 2-4.95; 8D, 5-12; 9D. The computation for x = 0 - 2 was based on the uncorrected Dawson table.

In the Library of Brown University the authors have deposited a Ms. giving the values of I as follows:

$$x = [0(.01).1(.1)1.8; 10D], [1.9(.1)4; 5-9D].$$

R. C. A.

MATHEMATICAL TABLES-ERRATA

References have been made to errata in no. 7 of MTAC, part II, Bibliography, under AIREY 19, AIRY 4, 5, BESSEL, BOURGET, BAASMTC 1, CARRINGTON, COLWELL & HARDY, DALE, DAVIS & KIRKHAM, DINNIK 8, 9, 10, 11, 14, Doodson, Gray & Mathews, Hayashi, Jahnke & Emde (also under BISACRE), KALÄHNE, KARAS, LEHMER, LOMMEL 2, 3, MACLEAN, MEISSEL 1, 5, NYMTP 3, NICHOLSON 1, RAYLEIGH 8, A. RUSSELL (under MACLEAN), SCHLEICHER, SCHULZE, B. A. SMITH 1, STEINER, TÖLKE, WAT-SON, A. G. WEBSTER, WILLSON & PEIRCE. See also RMT 163 (DAVIS), 164 (FISHER & YATES), 166 (TAKAGI), 167 (BIERENS DE HAAN), 168 (DAWSON); UMT 24 (POTIN); MAC 11 (ADAMS); N 21 (DEGEN, WRINCH).

44. BAASMTC, Mathematical Tables, v. 1, London, 1931.

P. 5, cos 26.1, for .56756 ..., read .56755 ...

P. 7, sin 47.6, for .46832 ..., read .45832 ...

It will be noted that in both cases a 5 has been converted to a 6.

L. J. C.

45. BROWN & SHARPE, Formulas in Gearing with Practical Suggestions. Seventeenth ed., second printing, Providence, R. I., 1943. Compare RMT 123, p. 143.

There are two omissions on p. 225,

$$0.6944 = 25/36$$
 and $0.7556 = 34/45$.

L. J. C.

46. H. G. DAWSON, "On the numerical value of $\int_0^h e^{x^2} dx$," London Math. So., *Proc.*, v. 29, 1898, p. 519-522. This is a table h = [0(.01)1.99; 6D] and h = [2; 5D]. Dawson writes "The foregoing table is true to six figures." Compare RMT 168.

1. A more precise statement of this table's accuracy, based upon differencing tests (as well as spot checking at h = 1 and h = 2) is the following: For $h \leq .79$, the table is good to within 2 units in the 6th decimal; for h > .79, the table is good to within a unit in the 6th significant figure except for a major error at h = 1.92 where Dawson gives 12.703175 which should read 12.707331 (obtained by the author both from Dawson's formula and from the Maclaurin series). [This result has been already published by TERRILL and SWEENY, see RMT 168.] In particular, for h = 1.85 to 1.99, the last digit is meaningless.

The following corrections apply to the text: On p. 519, in the second equation, the second term in parentheses on the right side reads $e^{-(9\pi^2/a^2)} \cdot \cos(3\pi x/a)$ and it should read $e^{-[9\pi^2/(4a^2)]} \cdot \cos(3\pi x/a)$. The last equation on p. 519 is not obtained by putting a = 1, but by setting $a = \frac{1}{2}$ and then subtracting the second equation from the first equation. On p. 522, the quantity $\Delta^2 u_h$, which occurs in a checking equation, is to be understood as meaning the second central difference and not the advancing difference, so that according to present day notation, it should read $\delta^2 u_h$. H. E. SALZER

NYMTP

2. We recomputed the whole of Dawson's table using the same method as before. When the tables were compared we found 27 errors involving the last two or more places, and 47 last place errors, not including last place errors of one unit. It is apparent that any list of corrections would be rather cumbersome, and it seemed better to publish Dawson's table in a corrected edition, which appeared in Franklin Institute, J., v. 238, 1944, p. 220-222.

H. M. TERRILL

47. R. A. FISHER and F. YATES, *Statistical Tables* . . . , 1938; compare MTE 9 and Corrigenda, p. 171.

P. 8, for $\frac{1}{8PQ} = \frac{1}{2(1-R^2)}$, read $\frac{1}{2PQ} = \frac{2}{1-R^2}$.
P. 27, $n = 3$, $P = .01$, for 11.341, read 11.345.
P. 41, 6.9, for 15.340, read 15.240; 7.1, for 7.5056, read 7.5062; 8.7, for 2147, read 2354.
P. 42, $p = 72\%$, for 58.7, read 58.1.
P. 55, $n = 24$, λ of ξ'_1 , for 1, read 2.
P. 88, middle C of piano, for 522, read 261.
P. 90, for 1 sack = 3 bushels, read 1 sack = 4 bushels.
FISHER and YATES, second ed., 1943, p. viii; compare RMT 164.

In the second edition are the following errors:

P. 35, unit errors in last decimal places, $n_1 = 2$, $n_2 = 12$; $n_1 = 5$, $n_2 = 13$; $n_1 = 8$, $n_2 = 23$; $n_1 = 1$, $n_2 = 26$; $n_1 = 6$, $n_2 = 28$; $n_1 = 5$, $n_2 = 29$; $n_1 = 4$, $n_2 = 60$; $n_1 = 6$, $n_2 = \infty$.

324

- P. 37, similarly 2-unit error for $n_1 = 8$, $n_2 = 5$; and unit errors as follows: $n_1 = 8$, $n_2 = 1$; $n_1 = 1$, $n_2 = 2$; $n_1 = 8$, $n_2 = 2$; $n_1 = 2$, $n_2 = 3$; $n_1 = 2$, $n_2 = 11$; $n_1 = 1$, $n_2 = \infty$. These slips were discovered by comparison with the tables reviewed in RMT 102. R. C. A.
- 48. R. L. HIPPISLEY, (under the direction of GEORGE GREENHILL) "Tables of elliptic functions" in E. P. ADAMS, *Smithsonian Mathematical Formulae and Tables of Elliptic Functions*, Washington, D. C., 1922. The following errors, corrected in the first reprint of this work in 1939, were discovered in 1938 (see UMT 28) during the checking of the table:

θ	for	read
20°	$C(21) = 1.02753\ 28991$	1.02753 29001
30°	$C(36) = 1.04880\ 62525$	1.04880 62625
55°	$A(28) = 0.46253\ 60691$	0.46252 60691
65°	$A(19) = 0.31260\ 00376$	0.31262 00376
75°	$A(2) = 0.03129\ 20711$	0.03129 20691
81°	$A(14) = 0.20082\ 72392$	0.20082 72389
		G. W. Spenceley

Miami University Oxford, Ohio

My attention has been called to an error in the Smithsonian . . . Tables of Elliptic Functions, 1939. On p. 273 in the next to the last column and the next to the last line

for 0.85562 25878, read 0.86562 25878.

The correct value is given on the preceding page.

Princeton University

49. C. JORDAN, Calculus of Finite Differences, Budapest, 1939.

On p. 435 are given the zeros of the Legendre polynomials $P_n(x)$ for n = 2(1)5. Apart from 3 unit errors in the 8th decimal place, in n = 5, x_0 (and $-x_4$) for -.90617994, read -.90617985; x_1 (and $-x_3$) for -.53846922, read -.53846931.

Also in the weight factors given on p. 518, apart from 2 unit errors in the 7th decimal place, A_{30} (and A_{33}), for .3478558, read .3478548.

H. E. SALZER

E. P. Adams

NYMTP

50. M. MUSKAT, F. MORGAN & M. W. MERES, J. Applied Physics, v. 11, 1940, p. 212. See RMT 113.

In MTAC, p. 109 (Corrigenda, p. 204) reference was made to certain tables of A. KALÄHNE, 1906, reprinted in JAHNKE & EMDE 1_1-1_5 , and criticized by MUSKAT, MORGAN & MERES. They claimed that the roots x_1, x_2, x_3 of the equation $J_1(x)N_1(kx) - J_1(kx)N_1(x) = 0$ when k = 2 would be more correct if 3.1917, 6.3116, 9.4446 were substituted for those given by Kalähne; they claimed also that they calculated the solutions of the equation for other values of k, for the purpose of problems in which they were interested. Of their revised values the first two are certainly wrong, and although Kalähne's value for $x_1, k = 2$, may be improved to read 3.1966, and the value of x_2 may be incorrectly rounded off being very nearly 6.31235, his values are the more reliable; it did not seem worthwhile to test x_3 . The extra values given by Muskat, Morgan & Meres, which we have not tested are for k = 3, 6 zeros to 4D; k = 5, 7 zeros, to 5 or 4D; k = 10, 8 zeros to 6 or 5D. The remaining values agree precisely with those given by JAHNKE & EMDE, both being acknowledged as from the same source, Kalähne.

The writer has six or more decimal values for many of the roots given by Kalähne.

J. C. P. MILLER

51. NYMTP, Table of the Bessel Functions $J_0(z)$ and $J_1(z)$ for Complex Arguments. New York, 1943. Compare RMT 151.

C. R. COSENS of the Cambridge University Engineering Laboratory has pointed out that numerous labels of the θ curves in the contour charts on p. xv and xvii are incorrect. On p. xv starting with the 90° ray and proceeding to the right, the correct labels are as follows: 0°, -20° , -45° , -90° , -135° , -160° , $\mp 180^{\circ}$, 160° , 135° , 90° , 45° , 20° , 0° , -20° , -45° .

The labels on the curves in the second quadrant, which are the "reflections" of the curves of the first quadrant in the imaginary axis $(90^{\circ} ray)$ are the negatives of the labels on the corresponding curves in the first quadrant.

The labels on the curves in the third and fourth quadrants, which are the respective "reflections" of the curves of the second and first quadrants with regard to the real axis $(0^{\circ} \text{ and } 180^{\circ} \text{ rays})$ are the negatives of the corresponding curves in the first two quadrants.

On p. xvii starting with the imaginary axis and proceeding to the right, the correct labels are as follows: 90°, 45° , 20°, 0°, -20° , -45° , -90° , -135° , -160° , $\mp 180^{\circ}$, 160° , 135° , 90°, 45° , 20°, 0°, -20° , and -45° . Starting with the imaginary axis and proceeding to the left, the correct labels are as follows: 90° , 135° , 160° , $\pm 180^{\circ}$, -160° , -135° , -90° , -45° , -20° , 0° , 20° , 45° , 90° , 135° , 160° , $\pm 180^{\circ}$, -160° , -135° , -90° , -45° , -20° , 0° , 20° , 45° , 90° , 135° , 160° , $\pm 180^{\circ}$, -160° and -135° . The labels on the curves in the third and fourth quadrants, which are the respective "reflections" of the curves of the second and first quadrants in the real axis are the negatives of the labels on the corresponding curves in the first two quadrants.

The above italicized numbers refer to curves incorrectly labeled in the volume.

A. N. LOWAN

52. NYMTP, Tables of Probability Functions, v. 1, New York, 1941. Compare RMT 91, p. 48-51.

P. 131: The argument .6496 is missing and the argument .6497 is repeated twice.

P. 216: The first digit following the decimal point in the value of $(2/\pi^{\frac{1}{2}})e^{-x^2}$ corresponding to the argument 1.742 should read 0 instead of 5.

A. N. LOWAN

53. R. M. PAGE, 14000 Gear Ratios. . . . New York, The Industrial Press, 1942. See RMT 87, p. 21f.

This table has been completely checked (at my suggestion) by Mr. SIDNEY JOHNSTON, a Manchester chartered accountant, who is a great enthusiast in all forms of table work. He has, in effect, recomputed the table, and, from his known thoroughness, it is not likely that any more errors remain to be found.

The errors in Table I are all casual, being either errors of transcription from the calculating machine, or typing errors. The errors in 51/46 and 74/83, which are the only ones (apart from the obvious typing slip in 66/15) that could affect Table 3, do so. Besides these

Tal	ble	1

Page	Fraction	For	Read
37	66/15	4 .000	4.400
64	80/42	915	905
67	111/45	111/46	111/45
68	51/46	659 652	695 652
	81/46	562	565
91	54/69	659 65	695 65
105	59/83	57	49
	74/83	·891 506	·891 566
	81/83	16	46
113	113/91	212	242
119	21/97	846 36	845 36
137	5/115	•143	•043

326

MATHEMATICAL TABLES-ERRATA

Table 2				
Page	Col.	For	Read	C - P
145	log	589 1228	589 2228	+ 1000
146	log	682 8919	682 9819	+ 900
148	log	933 0523	933 0532	+ 9
149	Ň	·093 340	·094 340	• • •
150	log	040 3286	040 4287	+ 1001
151	log	105 3423	105 3432	+ 9
156	log	336 4119	336 4220	+ 101
157	log	364 6981	364 6991	+ 10
	log	379 5556	379 4566	- 990
150	log	382 2168	383 2168 423 3446	+10000 + 10
158	log	423 3436 423 7471	423 7473	+ 10 + 2
160	log	463 4515	463 4416	$\frac{1}{2}$ 99
163	log	541 3722	541 3622	- 100
164	log log	561 7868	561 7968	
166	log	587 8194	587 8196	+ 100 + 2
169	log	646 4408	646 4410	$+$ $\overline{2}$
170	log	660 8023	660 8123	÷ 100
174	log	727 5252	727 5255	+ 3
178	log	768 8608	768 8612	+ 4
179	ratio	37/57	35/57	•••
180	log	797 8943	797 8953	+ 10
181	log	807 3085	807 3095	+ 10
184	log	836 4977	836 4979	+ 2
100	log	841 5375	841 6375	+ 1000 + 11
186	log	861 1838 877 1541	861 1849 877 1543	
188 190	log	897 0710	897 0720	+ 2 + 10
190	log log	932 2472	932 2482	+ 10
174	log	933 0528	933 0532	$+$ $\frac{1}{4}$
196	Ň	·89 151	·89 157	
	log	955 9333	955 9324	- 9
202	Ň	1.00 910	1.00 909	
203	log	009 8706	009 8708	+ 2
205	log	024 3595	024 3593	<u> </u>
	N	1.0620	1.0619	•••
208	log	047 7827	047 7728	- 99
213	,N	1.2181	1.2182	
215	log	108 3384 111 8956	108 3395 110 8957	+ 11 - 9999
217	log	123 0617	123 0627	+ 10
218	log log	129 9695	129 9595	$\frac{-}{-}$ 100
226	N	1.7013	1.7015	100
228	log	249 8874	249 8775	- 99
237	log	405 3320	405 3220	- 100
239	Ň	2.6774	2.7674	
	log	455 9318	455 9320	+ 2
247	log	661 8978	661 8987	+ 9
	log	682 3650	683 3649	+ 9999
054	log	682 5952	683 5951	+ 9999
251	log	872 8282	872 8284	+ 2
254 257	log	072 1070	073 1071 27 · 750	+ 10001
257	N	27/750 587 3377	587 3367	— […] 10
200	log	301 3311	301 3301	- 10

12 errors there are a number of unimportant errors of a unit in the last decimal. 30 of these are casual, but the following are systematic. On page 125 we find 35 values too small, including 100/103, so it is evident that too small a reciprocal of 103 was used. On page 137, for denominator 115, the values for numerators 9(23)101, which differ only in the first decimal, are in error. Similarly on page 140, for denominator 118, with the values for numerators 8 and 67 (=8 + 59) and 12 and 71 (=12 + 59). On page 141, 8 values are too large and 12 too small; this is mysterious, and suggests that this page was done by a different process or by a different person.

The logarithms in Table 2 would naturally be formed by subtracting the logarithm of the denominator from that of the numerator. Between 20 and 25 per cent of the logs are in error by a unit, since the logarithms of both numerator and denominator were obviously rounded off to 7 decimals before subtraction. This would lead to a theoretical expectation of one error of +1 unit and one error of -1 unit in every 8 values, provided no systematic effects intrude. The denominators 2, 4, 5 and 8 are very frequent, and lead to values of Nthat could be looked up in an ordinary 7-figure table. The fact that $\log 71/8 = \log 8.875$ (for instance) is in error seems to indicate that this process has not been adopted. On the other hand, the 7-figure logs of 2, 4 and 5 are in error by less than 0.1 of the 7th decimal, while that of log 8 only just exceeds this limit; hence, taking into account the frequency of these numbers (and of their multiples by ten) whether as numerators or denominators, the theoretical expectation above becomes less than 25 per cent. Another effect tending to reduce this percentage is numerators or denominators of 1, 10 or 100, whose logs are exact. The effect of a 5 in the 8th decimal of the log is seen in the logs of fractions containing 3 or 6 in the numerator or denominator; these bear a high proportion of systematic error. All these errors of a unit are unimportant, although most of them could easily have been avoided.

Far more serious are the 45 errors greater than a unit, although nine of them are of 2 units only, one of 3 units and two of 4; in 11 out of these 12 cases, Page's values are too low.

Table 3			
Page	Fraction	For	Read
279 283	15/76	·196 368 1·108 660	·197 368 1·108 696
285 296	51/46 78/37	$2 \cdot 101 \ 108$	2.108 108
321	81/62	1.306 581	1.306 452
332	74/83	·891 506	·891 566
341	103/68	1.514 786	1.514 706
348	93/89	1.044 444	1.044 944
		Table 4	
Page	N	For	Read
379	1702 1755	$\begin{array}{c} 27\times 63\\ 15\times 115\end{array}$	$\begin{array}{c} \text{Delete} \\ 15 \times 117 \end{array}$
380	1936	Insert	22×88
	1984	Insert	32×62
391	4645	49×95	Delete
200	4851	41×99	49×99
398	7772 7790	76 × 116 Insert	$\begin{array}{c} 67 \times 116 \\ 82 \times 95 \end{array}$
400	9401	79×109	79×119

This leaves 33 errors that could vitiate a 6-figure calculation. In the list of errors, the last column shows the magnitude of each error. Those on pages 146 and 151 appear to be due to transpositions, but the remainder are subtraction errors, each of a unit in some particular column. Of the 14 errors lying between 10 ± 1 , Page is too low in 12 cases; the larger errors are reasonably balanced. These errors are of a kind that anyone working by hand is liable to make, but a more experienced table-maker would have detected and eliminated them by summation or other checks. In this case, since the logs are symmetrical about log 1, they could (after typing) have been added in convenient symmetrical groups of 10 to 20, to produce totals whose last seven digits should always be 0. Alternatively, many values could have been produced in at least two independent ways; thus log $25/36 = \log 50/72$.

Table 3 consists of a rearrangement and rounding off of some of the values in Table 1. Apart from a very few unimportant rounding-off errors of a unit in the last decimal, there are seven errors, two of which are inherited from Table 1. The one on page 321 has been caused by combining the first three decimals of 81/62 with the second three decimals of

82/62; that this has been allowed to pass indicates that this table was not compared, *after typing*, with Table 1, as it should have been.

In Table 4 there are three omissions, and two cases in which the same factors have been assigned to two numbers, namely $27 \times 63 = 1701$ (not 1702) and $49 \times 95 = 4655$ (not 4645).

Summarizing, we take the view that the standard of table-making shown in this volume is not high enough to meet modern requirements. In other words, the author has not been fair to his users. He, and his publishers, and the engineering public, should be grateful to Mr. Johnston for his complete duplication of the numerical work.

L. J. C.

UNPUBLISHED MATHEMATICAL TABLES

References have been made to Unpublished Mathematical Tables in no. 7 of *MTAC*, part II, Bibliography under: AIREY, BAASMTC 2, 3, 4, 5, 6, 7, 8 (BICKLEY, Mrs. CASHEN, COMRIE, GWYTHER, HARTLEY, JOHNSTON, JONES, J. C. P. MILLER, THOMPSON), COMRIE, CORRINGTON & MIEHLE, DARMSTADT TECHNISCHE HOCHSCHULE, H. T. DAVIS, J. FISCHER, W. FISCHER, KOHLER, MORSE & HAURVITZ, NYMTP 5, 6, 7, 8, 9, 10, 11, 12, 13, TVERITIN. See also the first article of this issue, referring to a table by MILLER & BICKLEY).

24[A].—Table of n!/m!. Ms. prepared by, and in possession of H. E. SALZER, NYMTP, 150 Nassau St., New York City.

The quantities n!/m! were computed for n = 1(1)42, m = n - 2(-2)1 if n is odd, 2 if n is even. Exact values or 20 significant figures are given. A similar larger table in L. POTIN, Formules et Tables Numériques relatives aux Fonctions Circulaires, Hyperboliques, Elliptiques, Paris, Gauthier-Villars, 1925, p. 842-849, contains n!/m! for $n = 1, 2, \dots 50$ and m = (n - 1), (n - 2) down to either 1 or n - 25 (exact values). In Potin's notation, he tabulates $A_m^n \equiv m(m - 1)(m - 2) \cdots (m - n + 1)$ for m up to 50 and n up to 25.

The overlapping parts of the two tables were compared and the following errors are to be noted in Potin's values: In A_{24}^{24} , the sixth from the right group of three figures, for 403, read 463. A_{25}^{4} , for 303100, read 303600. The following obvious errors occur in the text on p. 841: "pour m et n variant de 1 à 50" is incorrectly stated, since the n goes only as far as 25. The formula $A_{m}^{n} = A_{m}^{n-1}(m + n - 1)$ should read $A_{m}^{n} = A_{m}^{n-1}(m - n + 1)$; and on the last line, A_{m+1}^{n} should read A_{m+i}^{n} .

H. E. SALZER

25[**A**].—*Table of the Coefficients of the Central Factorial Polynomials*. Ms. prepared by, and in possession of H. E. SALZER, NYMTP.

This table lists the quantities B_{2m}^{2n+2} , the exact values of the coefficients of x^{2m} in the polynomials $x^2(x^2 + 1^2)(x^2 + 2^2) \cdots (x^2 + n^2)$, of degree 2n + 2, for n = 1(1)20, 2m = 2n + 2(-2)2, i.e. up to polynomials of the 42nd degree. The coefficients of x^{2m} in the central factorial polynomials $x^{[2n+2]} = x^2(x^2 - 1^2)(x^2 - 2^2) \cdots (x^2 - n^2)$ are simply $(-1)^{m+n+1}B_{2m}^{2n+2}$ which are also denoted by $D^{2m}0^{[2n+2]}/(2m)!$ where $D^{2m}0^{[2n+2]}$ are usually known as the "central derivatives of zero." The values of B_{2m}^{2n+2} were obtained from the recurrence formula $B_{2m}^{2n+2} = n^2 B_{2m}^{2n} + B_{2m-2}^{2n}$, starting with $B_2^2 = 1$, $B_m^2 = 0$ for $m \neq 2$, and all values on the final manuscript were checked by the relation $\sum_{m=1}^{n+1} (-1)^{m+n+1} B_{2m}^{2n+2} = 0$.

The quantities B_{2m}^{2n+2} play an important role in the calculus of finite differences whenever central factorial polynomials are to be expressed in power series. They are used to calculate