

MATHEMATICAL TABLES—ERRATA

193.—CRÉDIT COMMUNAL DE BELGIQUE, *Tables d'Intérêts et d'Annuités*. Brussels, 1950.

Table V, p. 110, $1/\alpha_{\overline{40}|}$ (a) .08 for 0.08328680 read 0.08328684.

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194.—J. W. GLOVER, *Tables of Applied Mathematics in Finance, Insurance and Statistics*. Ann Arbor, 1930.

Part III, p. 394–413, Table of n th derivative of $(2\pi)^{-\frac{1}{2}} \exp(-\frac{1}{2}t^2)$.

p.	t	n	for	read
399	1.14	8	-30.15397	-30.154014
403	2.16	8	13.42550	13.425483
403	2.44	8	8.04225	8.042232
407	3.32	7	0.85568	0.855664
409	3.70	8	-1.27557	-1.275600
413	4.60	8	0.20725	0.207281
413	4.80	8	0.16334	0.163369

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195.—N. R. JØRGENSEN, *Undersøgelser over Frekvensflader og Korrelation*. Copenhagen, 1916.

A recomputation of a part of Jørgensen's tables of the n th derivative of $(2\pi)^{-\frac{1}{2}} \exp(-\frac{1}{2}x^2)$ by the Automatic Sequence Controlled Calculator reveals the following errata.

x	n	for	read
.04	6	-5.9506639	-5.95066324
.10	6	-5.7762539	-5.77625459
.14	6	-5.5796134	-5.57961394
.16	6	-5.4581549	-5.45815434
.32	6	-3.9980943	-3.99809459
.34	6	-3.7642068	-3.76420646
.40	6	-3.0122141	-3.01241439
.80	6	2.2938198	2.29381943
.82	5	-2.0400226	-2.04002227
.88	6	3.0653608	3.06536044
1.00	6	3.8715312	3.87153159
1.02	5	-1.3734687	-1.37346845
1.02	6	3.9619256	3.96192477
1.06	6	4.1043170	4.10431753
1.10	6	4.1958467	4.19584621
1.20	6	4.2103399	4.21033893
1.22	6	4.1785340	4.17853304
1.26	6	4.0829542	4.08295339
1.30	6	3.9475287	3.94752847
1.32	6	3.8660082	3.86600921

<i>x</i>	<i>n</i>	<i>for</i>	<i>read</i>
1.34	6	3.7759349	3.77593384
1.40	6	3.4595341	3.45953334
1.42	6	3.3404608	3.34046151
1.46	6	3.0852220	3.08522283
1.52	6	2.6680571	2.66805791
1.54	5	0.5802503	0.58025050
1.60	6	2.0712481	2.07124870
1.74	6	1.0095367	1.00953632
1.76	5	0.9520677	0.95206724
1.78	5	0.9679026	0.96790228
1.80	4	-0.4691537	-0.46915342
1.80	6	0.5801438	0.58014344
1.82	5	0.9911308	0.99113044
1.88	5	1.0059216	1.00592110
1.90	3	-0.0760477	-0.07604872
1.92	4	-0.3491837	-0.34918347
1.92	5	1.0033660	1.00336536
1.94	5	0.9986367	0.99863612
1.96	5	0.9917359	0.99173665
1.98	5	0.9827682	0.98276891
2.00	5	0.9718380	0.97183739
2.06	4	-0.2128736	-0.21287344
2.06	5	0.9283347	0.92833416
2.06	6	-0.8480016	-0.84800114
2.08	6	-0.9216997	-0.92169927
2.10	6	-0.9898676	-0.98986749
2.12	6	-1.0525184	-1.05251861
2.14	3	-0.1365916	-0.13659143
2.14	5	0.8494399	0.84943889
2.14	6	-1.1096856	-1.10968436
2.16	5	0.8267198	0.82671889
2.16	6	-1.1614158	-1.16141445
2.18	6	-1.2077754	-1.20777570
2.22	6	-1.2847396	-1.28473822
2.24	5	0.7270882	0.72708742
2.24	6	-1.3155509	-1.31554946
2.26	5	0.7005090	0.70050969
2.26	6	-1.3414083	-1.34140970
2.28	6	-1.3624566	-1.36245589
2.30	3	-0.1491983	-0.14919850
2.30	4	-0.0214149	-0.02141240
2.30	5	0.6460417	0.64604256
2.30	6	-1.3788340	-1.37883586
2.34	5	0.5904438	0.59044322
2.34	6	-1.3982379	-1.39823660
2.36	5	0.5624388	0.56243808
2.36	6	-1.4015997	-1.40159796
2.38	5	0.5342418	0.53440589
2.38	6	-1.4009731	-1.40097219
2.40	5	0.5064238	0.50642453
2.40	6	-1.3965440	-1.39654584
2.42	6	-1.3885091	-1.38851010
2.44	5	0.4509079	0.45090689
2.44	6	-1.3770629	-1.37705991
2.46	5	0.4235077	0.42350716
2.46	6	-1.3623946	-1.36239298
2.48	6	-1.3447081	-1.34470892
2.54	6	-1.2755618	-1.27556009
2.56	5	0.2924724	0.29247276

<i>x</i>	<i>n</i>	<i>for</i>	<i>read</i>
2.56	6	-1.2478101	-1.24781146
2.58	6	-1.2180421	-1.21804283
2.60	5	0.2437638	0.24376322
2.60	6	-1.1864509	-1.18644823
2.62	6	-1.1532160	-1.15321833
2.64	6	-1.1185374	-1.11853985
2.66	5	0.1756303	0.17563083
2.66	6	-1.0825918	-1.08259508
2.68	3	-0.1232624	-0.12326281
2.68	5	0.1543471	0.15434760
2.68	6	-1.0455579	-1.04556138
2.70	3	-0.1207053	-0.12070568
2.70	6	-1.0076074	-1.00761072
2.72	5	0.1140524	0.11404817
2.84	6	-0.7294393	-0.72943953

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196.—J. PETERS, *Eight-Place Table of Trigonometric Functions for every Sexagesimal Second of the Quadrant*. Berlin, 1939; Ann Arbor, 1943.
p. 585, $\cos 29^{\circ}10'55''$ for 87397577 read 87307577.

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197.—U. S. HYDROGRAPHIC OFFICE, *Tables of Computed Altitude and Azimuth*. Publication 214.

During the course of a recent computation project at the U. S. Naval Observatory it was found advisable to put on punched cards approximately one-third of the tabular functions contained in H.O. 214, *Tables of Computed Altitude and Azimuth*, volumes 1–9. The functions for latitudes 30° – 39° were taken from a manuscript, kindly furnished by the Hydrographic Office, which had been used in correcting the grosser errors in the first computation of volume 4. This made possible a critical examination of these data by differencing methods designed to detect minimum errors of 0.2 in altitude and 0.2 in azimuth, that is, errors of two units or more in the last printed place.

Of the eighteen errata listed below only one might seem to qualify as a computational error, the others apparently being typographical faults. Even if all eighteen were considered to be computational errors, they would amount to only seven thousandths of one percent of the total number of functions examined.

This is the most extensive study of the accuracy of H.O. 214 that has yet been made. Earlier conclusions [*MTAC*, v. 1, p. 81, v. 2, p. 182, v. 3, p. 139, 315] were based on relatively small samples. If the data examined are representative of the data not examined (a reasonable assumption) it may be concluded that the number of errors of two units or greater in H.O. 214 average six per volume, which is a high standard of accuracy.

Errata:

- V. 1; p. 75, lat 3° , dec 13° , h.a. 82° , for alt $7^\circ 00' 2$ read $7^\circ 06' 2$.
 p. 131, lat 5° , dec 21° , h.a. 0° , for alt $64^\circ 30' 0$ read $64^\circ 00' 0$.
- V. 2; p. 110, lat 14° , dec 11° , h.a. 23° , for alt $67^\circ 23' 1$ read $67^\circ 21' 3$.
 p. 186, lat 17° , dec 7° , h.a. 80° , for az $85^\circ 1$ read $86^\circ 1$.
- V. 3; p. 31, lat 21° , dec 7° , h.a. 20° , for alt $55^\circ 77' 9$ read $55^\circ 47' 9$.
 p. 112, lat 24° , dec 12° , h.a. 44° , in alt $46^\circ 39' 9$ the 6 is poorly printed.
- V. 5; p. 55, lat 42° , dec 1° , h.a. 31° , in alt $38^\circ 41' 9$ the 9 is poorly printed.
 p. 120, lat 44° , left hand h.a., for first 13° read 12° .
 p. 121, lat 44° , dec 30° , h.a. 31° , for az $150^\circ 0$ read $153^\circ 0$.
 p. 141, lat 45° , dec 17° , h.a. 14° , for alt $26^\circ 43' 2$ read $26^\circ 42' 3$.
- V. 6; p. 7, lat 50° , dec 9° , h.a. 51° , for alt $16^\circ 14' 7$ read $16^\circ 14' 5$.
 p. 58, lat 52° , dec 10° , h.a. 88° , for az $95^\circ 4$ read $85^\circ 4$.
- V. 7; p. 41, lat 61° , left hand h.a., for second 132° read 133° .
 p. 147, lat 65° , dec 30° , h.a. 146° , for alt $8^\circ 26' 7$ read $8^\circ 36' 7$.
- V. 8; p. 244, lat 79° , dec 18° , h.a. 49° , for alt $24^\circ 95' 2$ read $24^\circ 59' 2$.
- V. 9; p. 37, lat 81° , dec 18° , h.a. 160° , for alt $9^\circ 3' 13$ read $9^\circ 31' 3$.
 p. 162, lat 86° , dec 11° , h.a. 62° , for alt $12^\circ 5' 13$ read $12^\circ 51' 3$.
 p. 217, lat 88° , left hand h.a., for second 132° read 133° .

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UNPUBLISHED MATHEMATICAL TABLES

131[E, L].—R. M. COGLAN & R. C. T. SMITH, *Table of roots of $\sin z = kz$* .
 Typewritten Manuscript, 2 leaves, on deposit in UMT FILE and with
 Aeronautical Research Laboratories of the Department of Supply, Box
 4331 G.P.O. Melbourne, Australia.

The table gives 6D values of the real and imaginary parts of the first
 11 zeros of $\sin z + kz$ for $\pm k = 0(.25)1$. [The results for $k = 1$ have
 been published; see *MTAC*, v. 3, p. 414, RMT 611.]

132[F].—R. A. LIENARD, *Tables of the factors of $2^n - n - 2$ and $2^n - n - 3$*
 for $n = 1(1)1000$.

These two functions of n are remarkable in that they do not seem to
 represent primes. In fact 3 is the only prime that they are known to represent.
 Most values have small prime factors. In this respect these functions
 resemble CULLEN's¹ function $1 + x2^x$. At least one prime factor of $2^n - n - 2$
 is given for $n \leq 1000$ except for the 17 values: $n = 253, 323, 355, 455,$
 $493, 497, 517, 535, 559, 589, 649, 713, 749, 815, 895, 901, 979$. At least one
 prime factor of $2^n - n - 3$ is given for $n \leq 1000$ except for the 12 values:
 $n = 162, 210, 254, 320, 330, 416, 590, 650, 738, 780, 872, 914$.

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¹A. J. C. CUNNINGHAM & H. J. WOODALL, "Factorisation of $Q = (2^q \mp q)$ and
 $(q \cdot 2^q \mp 1)$," *Messenger Math.*, v. 47, 1917, p. 1-38.