metric functions; T. 39 for sine, cosecant and cotangent for an angle \(0(0'.1)2^\circ12'\) and T. 40 all six functions for an angle \(0(1')90^\circ\). 

This volume has a neat blue cover with two gold lines around the edge of the front cover; it is well printed on a good grade of white paper. It seems likely that a person who uses the table frequently will grow to be very fond of the book.

Charles H. Smiley

Brown University

Editorial Note: On p. 79, heading, for Tab. 39, read Tab. 30.

MATHEMATICAL TABLES—ERRATA

In this issue references have been made to Errata in RMT 579 (Uhler), 580 (France), 584 (Kariakin), 596 (Jahnke & Emde), 605 (Ugarov), 606 (Guldhammer); N96 (Pitiscus).


Using the NBSCL, Tables of the Exponential Function \(e^x\), second edition, 1947, I find the following values:

\[
\begin{align*}
tanh 0.174 &= 0.172265000513, \\
cosh 0.911 &= 1.444464999499, \\
tanh 0.932 &= 0.731524999456, \\
tanh 1.381 &= 0.881174995743, \\
tanh 1.986 &= 0.963025002860.
\end{align*}
\]

The roundings of these values to five decimals had been left in doubt in MTE 129. These results indicate the following three “errors in excess of 5 units in the next succeeding place of decimals” in Hyperbolic Functions:

<table>
<thead>
<tr>
<th>Page</th>
<th>(u)</th>
<th>Function</th>
<th>For</th>
<th>Read</th>
</tr>
</thead>
<tbody>
<tr>
<td>109</td>
<td>0.174</td>
<td>(\tanh u)</td>
<td>.17226</td>
<td>.17227</td>
</tr>
<tr>
<td>124</td>
<td>0.932</td>
<td>(\tanh u)</td>
<td>.73153</td>
<td>.73152</td>
</tr>
<tr>
<td>145</td>
<td>1.986</td>
<td>(\tanh u)</td>
<td>.96302</td>
<td>.96303</td>
</tr>
</tbody>
</table>

E. G. H. Comfort

Illinois Institute of Technology

146.—R. A. Fisher, “On the ‘probable error’ of a coefficient of correlation deduced from a small sample,” Metron, v. 1, no. 4, 1921, p. 3–32. On p. 26–27 is a table of \(\tanh^{-1} x = \frac{1}{2}[\ln (1 + x) - \ln (1 - x)]\), \(x = \left[0(.01) - .9(.001)\right] 7D\), \(\delta^4\).

On checking this table with a 9D table recently computed in this Laboratory we found only a single small error. In \(\tanh^{-1} .918\), for 1.576 159 6, read 1.576 159 5; our 9-place value is 1.5761 59504.

Theodore Singer

Computation Laboratory
Harvard University

Editorial Note.—In this same paper of Fisher there is a table, p. 28, of \(\tanh^{-1} (x - 2/x) = \frac{1}{2} \ln (x - 1)\), for \(x = \left[1(1)100\right] 7D\). This table is not listed in FMR, Index, although Speidel’s tables, 1622, of \(\frac{1}{2} \ln x\) and of \(\frac{1}{2} \ln (1/x)\), for \(x = \left[1(1)1000\right] 6D\), are noted.

On p. 216–265 of this volume there is a table of the indices of the first 25 primes, modulo \( N \), for all primes \( N < 10^4 \). The following errata were noted by E. Jacobsthal:

<table>
<thead>
<tr>
<th>( N )</th>
<th>( q )</th>
<th>( q )</th>
<th>( q )</th>
<th>( q )</th>
<th>( q )</th>
<th>( q )</th>
</tr>
</thead>
<tbody>
<tr>
<td>256</td>
<td>8191</td>
<td>17</td>
<td>29</td>
<td>31</td>
<td>47</td>
<td>53</td>
</tr>
<tr>
<td>for</td>
<td>716</td>
<td>4129</td>
<td>6704</td>
<td>6589</td>
<td>2527</td>
<td>3918</td>
</tr>
<tr>
<td>read</td>
<td>2693</td>
<td>2152</td>
<td>491</td>
<td>376</td>
<td>550</td>
<td>1941</td>
</tr>
<tr>
<td>260</td>
<td>9137</td>
<td>17</td>
<td>43</td>
<td>59</td>
<td>71</td>
<td>97</td>
</tr>
<tr>
<td>for</td>
<td>3099</td>
<td>2373</td>
<td>8781</td>
<td>427</td>
<td>2454</td>
<td></td>
</tr>
<tr>
<td>read</td>
<td>3098</td>
<td>2372</td>
<td>8780</td>
<td>428</td>
<td>2453</td>
<td></td>
</tr>
</tbody>
</table>

Another error on p. 256 may be noted, for \( N = 5387 \), read \( 8387 \).

D. H. L.


Napier's *Mirifici Logarithmorum Canonis Descriptio* was published in 1614 and the first edition of the English translation by Edward Wright (1558?–1615) was published by his son Samuel Wright in 1616. In 1618 there appeared a second edition in which the main text was identical with the first, but a new title-page was supplied, and also a remarkable anonymous 16-page appendix by William Oughtred (1574–1660). This Appendix was completely reprinted by J. W. L. Glaisher in his very notable article "The earliest use of the radix method for calculating logarithms, with historical notices relating to the contributions of Oughtred and others to mathematical notation," *Quart. Jn. Math.*, v. 46, April 1915, p. 125–197.

The reprinted Table on p. 142 gives what is equivalent to \( 10^x \ln x, x = \left[1(1.1)(10)(10)(100)(100)(1000)(1000)(1000)(1000)(10000)(10000)(100000)(100000)(100000)900000; 6D\right] \). Glaisher pointed out that there was a misprint of 6 for 8 in the third decimal of \( \ln 3 \), but the third decimal of \( \ln 50 \) should be 9, not 8. Apart from these major misprints for the 54 values of \( x \) there are 51 last figure errors of from 1 to 6 units: 3 of 6 units; 8 of 5; 8 of 4; 15 of 3; and 9 of 2. There is also a supplementary table giving \( \ln x \) for 18 values \( x = 1.1(1.1)1.9 \) and 1.01(0.01)1.09 each to 6D. These are correct except for 10 unit errors in last decimal places.

Such was the extent of the equivalent of the first table of \( \ln x \), although there was at that time no thought of exponents or bases as they were later conceived. Those desiring to understand the exact setting of the table in the mathematical thought of the time will naturally turn to Glaisher's study.

R. C. A.

**UNPUBLISHED MATHEMATICAL TABLES**

75[K].—Univ. of California, Statistical Laboratory, Berkeley, *Tables of the Bivariate Normal Distribution*.

This Laboratory has just completed work on a table of the Bivariate Normal Distribution. The quantity tabled is

\[
L(h,k,r) = \frac{1}{2\pi \sqrt{1-r^2}} \int_{-\infty}^{+\infty} \int_{-\infty}^{+\infty} \exp \left\{ -\frac{x^2 - 2rxy + y^2}{2(1 - r^2)} \right\} \, dx \, dy.
\]

A table of this kind was originally computed and published by Karl Pearson in the volume he edited, *Tables for Statisticians and Biometricians*, part II. 1931, p. 78–137, lii–lxxix. In this publication the arguments \( h \) and \( k \) are tabled for \( 0(.1)2.6 \). The argument \( r \) is for \(-1(.05) + 1 \). Values are given to 6D.