

for $x = 0(0.01)2$, where the constant ν is determined by the condition that $1/\nu$ is the abscissa of the main minimum of $\Gamma(1+x)$. Thus, $\nu = 2.166226964$ and $1/\Gamma(1+1/\nu) = 1.129173885$ to 9D, as the author correctly states. This choice of ν was apparently motivated by the fact that the error function then exceeds for any specified positive argument x the corresponding value for any other choice of a positive value of ν , as, for example, $\nu = 2$, yielding the normal error function.

The underlying calculations were initially performed on an IBM 370 system and then repeated on a Wang Model 360 calculator. The final computer results were checked to 9S prior to truncating to 5S.

No applications of this unique table are mentioned or suggested.

J. W. W.

17[7].—L. K. FREVEL & T. J. BLUMER, *Seven-Place Table of Iterated Hyperbolic Tangent*, The Dow Chemical Company, Midland, Michigan, 1972. Ms. of 43 pp. deposited in the UMT file.

The n th iterated hyperbolic tangent is herein tabulated to 7D for $n = 0(0.1)10$ and argument u over the range $u = 0(0.02)3$. All tabular entries were originally calculated to 9D on an IBM 1800 system, prior to rounding to 7D; accuracy is claimed to within a unit in the last tabulated decimal place.

Details of the procedure followed in calculating the table are presented in a three-page introduction, and reference is made to related unpublished tables of iterated functions prepared by the senior author and his associates [1], [2], [3], [4].

A useful figure is included in the text, consisting of an automated plot of the iterated tangent over the tabular range of u and for 30 selected values of n .

J. W. W.

1. L. K. FREVEL, J. W. TURLEY & D. R. PETERSEN, *Seven-Place Table of Iterated Sine*, The Dow Chemical Company, Midland, Michigan, 1959. [See *Math. Comp.*, v. 14, 1960, p. 76, RMT 2.]

2. L. K. FREVEL & J. W. TURLEY, *Seven-Place Table of Iterated $\text{Log}_e(1+x)$* , The Dow Chemical Company, Midland, Michigan, 1960. [See *Math. Comp.*, v. 15, 1961, p. 82, RMT 3.]

3. L. K. FREVEL & J. W. TURLEY, *Tables of Iterated Sine Integral*, The Dow Chemical Company, Midland, Michigan, 1961. [See *Math. Comp.*, v. 16, 1962, p. 119, RMT 8.]

4. L. K. FREVEL & J. W. TURLEY, *Tables of Iterated Bessel Functions of the First Kind*, The Dow Chemical Company, Midland, Michigan, 1962. [See *Math. Comp.*, v. 17, 1963, pp. 471–472, RMT 81.]

18[7].—DUŠAN V. SLAVIĆ, “Tables for functions $\Gamma(x)$ and $1/\Gamma(x)$,” *Publ. Fac. Elect. Univ. Belgrade (Série: Math et Phys.)*, No. 357–No. 380, 1971, pp. 69–74.

The two main tables in this publication (No. 372) consist of 30D values of $\Gamma(x)$ and its reciprocal for $x = 1(0.01)2$, as calculated on an IBM 1130 system. A third table gives to the same precision the “principal value” of $\Gamma(-n)$, that is

$$(-1)^n \psi(n+1)/\Gamma(n+1),$$

for $n = 0(1)30$.

In the introductory text the author describes the procedure followed in calculating and checking the tables, and he announces the discovery of nine terminal-digit errors in a 16D table of the coefficients of the power series for $1/\Gamma(x)$ that is reproduced in the NBS *Handbook* [1]; however, all these errors have been noted previously [2].

Unfortunately, the great care taken in calculating these tables evidently did not extend to their typesetting and final proofreading. Thus, a comparison of the table of $\Gamma(x)$ with an existing 18D table [3] has revealed three typographical errors; namely, the fourteenth decimal of $\Gamma(1.16)$ should read 8 instead of 3, the fifteenth decimal of $\Gamma(1.28)$ should read 4 instead of 5, and the eleventh decimal of $\Gamma(1.48)$ should read 3 instead of 4. A grave doubt is thereby created as to the complete typographical accuracy of the higher decimals in that table and also with respect to the complete reliability of the other two tables as printed.

J. W. W.

1. M. ABRAMOWITZ & I. A. STEGUN, Editors, *Handbook of Mathematical Functions with Formulas, Graphs, and Mathematical Tables*, National Bureau of Standards, Applied Mathematics Series, No. 55, U.S. Government Printing Office, Washington, D.C., 1964, p. 256.

2. *Math. Comp.*, v. 20, 1966, p. 641, MTE 399.

3. BRITISH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE, *Mathematical Tables, Vol. I: Circular & Hyperbolic Functions, Exponential & Sine & Cosine Integrals, Factorial Function & Allied Functions, Hermitian Probability Functions*, 3rd ed., Cambridge Univ. Press, 1951, pp. xxxviii + 40.

19[7].—DUŠAN V. SLAVIĆ, "Tables of trigonometric functions (angle in grades)," *Publ. Fac. Elect. Univ. Belgrade (Série: Math. et Phys.)*, No. 357–No. 380, 1971, pp. 75–80.

This paper (No. 373) presents 30D tables of $\sin x$, $\cos x$, $\tan x$, $\cot x$, $\sec x$, and $\csc x$ for $x = 0(1^\circ)100^\circ$ or, in radians, $x = 0(\pi/200)\pi/2$, calculated on an IBM 1130 system.

A user of these tables may be surprised to see the value of zero assigned to the tabular entries for $\cot 0$ and $\csc 0$; however, this is simply the Cauchy principal value, as the author explains in the introductory text.

Although the author claims accuracy to at least 36D for the computer output, the reviewer has discovered five typographical errors in the printed tables as the result of a comparison with the corresponding 20D tables of Andoyer as reproduced in the NBS *Handbook* [1]. The most conspicuous of these appear in $\sin 50^\circ$, where the first two decimal figures are incorrect, and in $\csc 8^\circ$, where the integer part is too large by a unit. The three remaining errors appear in the 20th decimal places of $\cos 4^\circ$ (for 0, read 5), $\cos 29^\circ$ (for 1, read 3), and $\sec 48^\circ$ (for 8, read 2). These corrections have been verified by independent calculations by this reviewer. Of course, there remains the possibility of such errors existing in the last 10 published decimal places, which have not been examined except for a few entries.

J. W. W.

1. M. ABRAMOWITZ & I. A. STEGUN, Editors, *Handbook of Mathematical Functions with Formulas, Graphs, and Mathematical Tables*, National Bureau of Standards, Applied Mathematics Series, No. 55, U.S. Government Printing Office, Washington, D.C., 1964, Table 4.12, pp. 200–201.