

A detailed discussion of these series appears in the Introduction to the present tables (pp. v-vi).

The remaining two auxiliary tables consist, respectively, of $\sin \phi$, $\cos \phi$, $\phi = 0^\circ(1^\circ)90^\circ$, 10D; $\tan \phi$, $\cot \phi$, $\phi = 0^\circ(1^\circ)90^\circ$, 11S and 12S; and of $R_0 = \ln \tan(\phi/2 + \pi/4)$, $\phi = 0^\circ(1^\circ)89^\circ$, 9D.

Appended to the Introduction is a bibliography of 11 items, which, however, does not include a reference to the tables of Paxton & Rollin [2]. Moreover, since the publication of these Russian tables, Fettis & Caslin have calculated 10D tables of elliptic integrals of all three kinds [3]; however, therein the tabulation of the integral of the third kind is over a broader mesh in k and ϕ and is restricted to $-1 \leq n \leq 1$, in contrast to the tables under review, which are by far the most elaborate of their kind calculated to date.

J. W. W.

1. V. M. BELĀKOV, R. I. KRAVŤSOVA & M. G. RAPPAPORT, *Tablitsy elliptičeskikh integralov*, Tom I, Izdatel'stvo Akademii Nauk SSSR, Moscow, 1962. (See *Math. Comp.*, v. 18, 1964, pp. 676-677, RMT 93; v. 19, 1965, p. 694, RMT 127.)

2. F. A. PAXTON & J. E. ROLLIN, *Tables of the Incomplete Elliptic Integrals of the First and Third Kind*, Curtiss-Wright Corporation, Research Division, Quehanna, Pa., June 1959. (See *Math. Comp.*, v. 14, 1960, pp. 209-210, RMT 33.)

3. HENRY E. FETTIS & JAMES C. CASLIN, *Tables of Elliptic Integrals of the First, Second, and Third Kind*, Applied Mathematics Research Laboratory Report ARL 64-232, Aerospace Research Laboratories, Wright-Patterson Air Force Base, Ohio, December 1964. (See *Math. Comp.*, v. 19, 1965, p. 509, RMT 81. For errors, see *Math. Comp.*, v. 20, 1966, pp. 639-640, MTE 398.)

20 [9].—M. LAL, *Decimal Expansion of Mersenne Primes*, ms. of 19 pp., dated June 20, 1967, deposited in the UMT file.

This manuscript contains the exact values in the decimal system of those thirteen known Mersenne primes M_p for which $p > 100$, calculated on an IBM 1620 at Dalhousie University.

A table is included which gives for each of these primes the frequency distribution of the digits, with the corresponding χ^2 value, and the total number of digits. No significant departure from a random distribution of the digits can be inferred from this statistical analysis.

The author notes in his introductory remarks that Sierpiński [1] gives the number of digits in M_{1279} and M_{11213} incorrectly as 376 and 3381, respectively, instead of 386 and 3376. In addition, the present author has observed that Hardy & Wright [2] give the latter number incorrectly as 3375.

For supplementary information the author refers the reader to papers by Gillies [3] and Uhler [4], [5].

J. W. W.

1. W. SIERPIŃSKI, *Elementary Theory of Numbers*, Państwowe Wydawnictwo Naukowe (Polish Scientific Publishers), Warsaw, and Hafner Publishing Co., New York, 1964, p. 341.

2. G. H. HARDY & E. M. WRIGHT, *An Introduction to the Theory of Numbers*, 4th ed., 1960, reprinted 1965, p. 16.

3. D. B. GILLIES, "Three new Mersenne primes and a statistical theory," *Math. Comp.*, v. 18, 1964, pp. 93-95.

4. H. S. UHLER, "A brief history of the investigation on Mersenne numbers and the latest immense primes," *Scripta Math.*, v. 18, 1952, pp. 122-131.

5. H. S. UHLER, "On the 16th and 17th perfect numbers," *Scripta Math.*, v. 19, 1953, pp. 128-131.