

## REVIEWS AND DESCRIPTIONS OF TABLES AND BOOKS

- 1 [A, Z].—EDGAR KARST, *Six-Digit Fraction Conversion from Decimal to Octal with Unlimited Accuracy*, ms. of six tables (343 numbered sheets) and 15 handwritten sheets, 23 cm., deposited in UMT File.

Construction of these voluminous decimal-to-octal conversion tables was based on the author's earlier four-digit decimal-fraction conversion tables, which are described in [1]. Use of the present tables is illustrated by six numerical examples, one for each of the tables in this manuscript. The IBM 650 program (of 20 lines) used in the underlying calculations is given, and other details of the construction and checking of the tables are supplied.

Professor Karst also gives a list of references, which includes titles of related tables of Wijngaarden [2], Causey [3], and Fröberg [4].

J. W. W.

1. EDGAR KARST, *Tables for converting 4 digit decimal fractions to periodic octal fractions*. [See RMT 6, *MTAC*, v. 10, 1956, p. 37.]
2. A. VAN WIJNGAARDEN, *Decimary-Binary Conversion and Deconversion*, Report R-130 of the Computation Department, Mathematical Center at Amsterdam. [See RMT 83, *MTAC*, v. 11, 1957, p. 208.]
3. ROBERT L. CAUSEY, *Decimal to Octal and Octal to Decimal Conversion Tables*, U.S. Naval Air Missile Test Center, Point Mugu, California, 1952. [See RMT 65, *MTAC*, v. 10, 1956, p. 227.]
4. CARL-ERIK FRÖBERG, *Hexadecimal Conversion Tables*, second edition, C. W. K. Gleerup, Lund, Sweden, 1957. [See RMT 82, *MTAC*, v. 11, 1957, p. 208.]

- 2 [C].—JOSEPHINE G. BOERNGEN, *Table of Common Logarithms and their Squares*, Report PB 181 100, Office of Technical Services, Department of Commerce, Washington 25, D.C., December 1961, 3 + 22 p., 27 cm. Price \$0.75.

This table, which was prepared in connection with a statistical study of chemical analyses of rock samples, contains  $\log N$  and  $(\log N)^2$  to 5D for  $N = 1(1) 10^3$   $(10^2)10^4$ . According to the author, 5D values of  $\log N$  were used to obtain the tabulated values of  $(\log N)^2$ . The author's statement that the corresponding truncation errors are as large as a unit in the last decimal place printed was evidently not based on an appropriate error analysis. Such analysis indicates the possibility of terminal-digit errors of as much as *four* units in the listed values of  $(\log N)^2$ . An error of this magnitude is attained, in fact, in the tabulated square of the common logarithm of 9900. Clearly, the last place in that table is generally unreliable.

J. W. W.

- 3 [F].—F. J. BERRY, "*Table of prime numbers from 12000000 to 12041000*," Royal Armament Research and Development Establishment, Fort Halstead, Sevenoaks, Kent, England. Ms. of 11 p., 8" x 13", deposited in UMT File.

This list of the 2500 consecutive primes directly following 12,000,000 was computed on a new electronic computer, COSMOS, in a single run of 9 hours 20 minutes, using an unsophisticated program.

In his introductory remarks the author expresses his belief that this range has not been hitherto investigated in his country. He is apparently unaware both of the