

The explanatory text also includes outlines of the various methods available for the multiple-precision computation of the tabulated quantiles, the probability integral and frequency function for the t -distribution, and the normal probability integral and its inverse.

The exceptionally high precision of this definitive table, as well as its accuracy, should make it a basic reference table for statisticians, as implied in the title.

J. W. W.

54[9].—J. C. P. MILLER, *Primitive Root Counts*, University Mathematical Laboratory, Cambridge, England. Ms. of 15 pp. deposited in the UMT file.

This tabulation of counts of primes with specified primitive roots was started in connection with the preparation of a set of tables of indices and primitive roots compiled by the present author in collaboration with A. E. Western [1]. The counts listed therein (Table 8) have been considerably extended in the present tables, which are based on calculations completed in 1966 on EDSAC 2, using programs prepared by M. J. Ecclestone.

The main listing of counts herein includes all those primes less than 250,000 for which the integer a is a primitive root, where $\pm a = 2(1)60$. These counts are given for such primes occurring in successive intervals of 10^4 integers, with subtotals for successive intervals of $5 \cdot 10^4$ and 10^5 integers, as well as a grand total for each a . Corresponding to $\pm a = 3, 5, 7, 11, 13$, and 17 , these counts are extended in a supplementary table to all such primes less than 10^6 , appearing in successive intervals of $5 \cdot 10^4$ integers, with subtotals at every fifth interval, and the corresponding grand totals. The corresponding counts of all primes in these intervals are also given, and a numerical comparison is made between the cumulative tabular counts and the corresponding counts predicted from Artin's conjecture as elaborated upon in [1].

The large amount of new material in this manuscript certainly provides a valuable supplement to the corresponding data in [1], which will be of particular interest to number theorists.

J. W. W.

1. A. E. WESTERN & J. C. P. MILLER, *Indices and Primitive Roots*, Royal Society Mathematical Tables, Vol. 9, University Press, Cambridge, 1968. (See *Math. Comp.*, v. 23, 1969, pp. 683–685, RMT 51.)

55[9].—SAMUEL YATES, *Partial List of Primes with Decimal Periods Less than 3000*, Moorestown, N. J. Ms. of 30 computer sheets (undated) deposited in the UMT file.

Known primitive prime factors of integers of the form $10^n - 1$ are here tabulated for 1564 positive integers n less than 3000. Complete factorizations are listed for the first 30 values of n and for 15 higher values, not exceeding $n = 100$. All admissible primes under $4 \cdot 10^7$ have been tested as factors throughout the range of the table.

Brillhart and Selfridge [1] have proved that $(10^n - 1)/9$ is prime only for $n = 2, 19$, and 23 if $n < 359$. The present table permits this limit to be raised to $n < 379$.

This compilation updates and supplements an earlier one [2], which was limited to prime values of n in the same range.

J. W. W.

1. J. BRILLHART & J. L. SELFRIDGE, "Some factorizations of $2^n \pm 1$ and related results," *Math. Comp.*, v. 21, 1967, pp. 87–96.
 2. SAMUEL YATES, "Factors of repunits," *J. Rec. Math.*, v. 3, 1970, pp. 114–119.

56[10].—RUDOLF KOCHENDÖRFFER, *Group Theory*, McGraw-Hill, London, 1970, vii + 297 pp., 24 cm. Price £5.—

This book, an English translation of the original 1966 German edition, provides an excellent introduction to group theory, with the emphasis placed on finite groups. Besides the standard topics, some fairly recent theorems (e.g., on Carter subgroups of solvable groups) are included.

The book is written very straightforwardly, with a minimum of notation and a maximum of clarity; in this respect, it compares favorably with other texts, such as *Group Theory* by W. R. Scott, which cover somewhat more ground at the expense of readability. There are 127 exercises, many of them being examples for the general theory (of these, however, 49 are concentrated in the first two chapters).

The author's choice of topics shows (in the reviewer's opinion) excellent taste. There are 13 chapters, as follows: groups and subgroups, homomorphisms, Sylow subgroups of finite groups, direct products, abelian groups, extensions of groups, permutation groups, monomial groups and the transfer, nilpotent and supersoluble groups, finite p -groups, finite soluble groups, miscellaneous topics (e.g., the Burnside Problem), representations (including proofs of theorems of Burnside and Frobenius). There is a useful bibliography of books and articles.

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57[12].—R. DUBUC, G. LAMBERT-CAREZ, M. GRATTON, L. ROY & A. SHAPIRO, *Dictionnaire Anglais-Français, Français-Anglais de l'Informatique*, Dunod, Quebec, 1971, xi + 214 pp., 22 cm. Price 24F, paperbound.

This book contains some six thousand words and phrases from the area of computer science, both in English and in French. Contrary to the usual concepts of lexicology, the authors have not attempted to record the current usage of the French scientific language in the field of computers. Rather, they have tried to invent a new language, since they feel that the current usage involves too much borrowing from the English vocabulary. While nobody can dispute this fact, it appears doubtful that their endeavor will have any measure of success. There seem to be two reasons for this: The first reason is that it is far from certain that French speaking computer specialists actually feel the need to purify the professional jargon they have been using for many years. The second reason for the probable failure of this enterprise is the proposed vocabulary itself. Many of the French words or phrases have been coined by the authors themselves, using some standard Latin or Greek roots, prefixes and suffixes. Besides the fact that one would expect the book to indicate clearly which phrase is extracted from the existing literature and which one is a creation of the authors, it turns out that many of the new words are unbelievably pedantic. Although most of these neologisms are, in fact, logically derived from the appropriate