

The lead-off paper in the book is by Bombieri and Davenport, "On the large sieve method". Most of the other papers are on number theory, but (about) $1/\pi$ of them are on analysis, more exactly, 7 out of 22 of them.

D. S.

43[10]—ROBERT SPIRA, *Cyclotomic Polynomial Generator and Tables*, Version A, Michigan State University, East Lansing, Mich., October 1969, 45 pp., 28 cm., deposited in UMT file.

This is an emended version of an undated report released several months earlier, which was found to contain several serious typographical errors in the arrangement of the tabular entries.

The numerical table herein consists of a parallel listing of values of the Euler totient, $\phi(n)$ and of the coefficients of the cyclotomic polynomial $Q_n(x)$ for $n = 1(1)250$. (This polynomial is defined as the irreducible monic polynomial of degree $\phi(n)$ that has as its zeros the primitive n th roots of unity.)

This main table is preceded by a detailed description (including flow charts and listings) of the four FORTRAN programs used in the calculations.

The introduction describes the mathematical procedure followed in the generation of the cyclotomic polynomials, which the author ascribes to Lehmer [1].

J. W. W.

1. D. H. LEHMER, *Guide to Tables in the Theory of Numbers*, Bulletin No. 105, National Research Council, Washington, D. C., 1941, p. 73.

44[12]—J. HILSEN RATH, G. G. ZIEGLER, C. G. MESSINA, P. J. WALSH & R. J. HERBOLD, *Omnitab, A Computer Program for Statistical and Numerical Analysis*, National Bureau of Standards Handbook No. 101, 1966, reissued 1968 with corrections, 1x + 275 pp., 26 cm. Price \$3.00.

Computing has come a long way from the early beliefs of von Neumann that a computer user will be a scientist who will know the range of every number entering in his calculation, and who will be so motivated that machine language programming will present no problem. In fact, even the use of floating-point arithmetic was considered to be "playing with fire". Today we find a veritable Tower of Babel of languages, collections of algorithms, subroutine libraries and operating systems, and the promise of a console in every home for doing Junior's homework and to facilitate menu preparation. It is therefore hard to realize that there exist large numbers of problem-oriented research people who want access to a large digital computer, but who do not want to learn programming, for example, they may just want "a least-squares fit". For these people large numbers of packages and "general-purpose" systems have been devised.

OMNITAB, developed by the Statistical Engineering Laboratory of the National Bureau of Standards, is a completely assembled interpretive program which provides facilities for doing a wide range of statistical and engineering type calculations. Originally written for the IBM 7090/7094, this volume is a manual for users with access to a computer with the OMNITAB system and indicates in detail the necessary