

REVIEWS AND DESCRIPTIONS OF TABLES AND BOOKS

77[1].—R. V. GAMKRELIDZE, Editor, *Progress in Mathematics*, Vol. I: *Mathematical Analysis*, Translated from Russian, Plenum Press, New York, 1968, ix + 246 pp., 24 cm. Price \$15.00.

The original was published in 1966 for the All-Union Institute of Scientific and Technical Information in Moscow as a volume of *Itogi Nauki-Seriya Matematika*. It contains three survey articles, each with extensive references to the literature. The first, by V. A. Ditkin and A. P. Prudnikov, is on *Operational Calculus*, the second, by V. P. Khavin, on *Spaces of Analytic Functions*, and the third, by V. V. Nemytskii, M. M. Vainberg and R. S. Gusarova, on *Operational Differential Equations*. Readers of this journal might be interested in a section on numerical methods for inverting the Laplace transform, which appears in the first article.

W. G.

78[2.05, 2.10, 2.15, 2.20, 2.55, 3, 4, 5, 8, 12, 13.15, 13.35, 13.40].—MELVIN KLERER & GRANINO A. KORN, Editors, *Digital Computer User's Handbook*, McGraw-Hill Book Co., New York, 1967, xii + 922 pp., 24 cm. Price \$27.50.

Quoting the editors of this massive tome, "We have aimed at a comprehensive single-volume work treating practical and currently applicable methods of programming, numerical analysis and leading fields of computer applications." In our opinion, they have not succeeded; and it is doubtful that any such venture would succeed. What emerges here is another anthology of 31 separate articles, ranging in quality from excellent to poor and misleading, and in form from mathematical essay (e.g., Wilkinson) to tables of formulae (e.g., Karplus and Vemuri). It is difficult to imagine the buyer who would find this a useful investment at the purchase price required.

The book is divided evenly into three parts: Programming, Numerical and Statistical Methods, and Applications.

Programming. Elements of Programming, M. Klerer; Computer Number Systems and Arithmetic, M. Klerer; Errors, Loss of Significance, and Data Presentation, M. Klerer; Computer Characteristics Table, Charles W. Adams Associates; Algorithmic Compiler Design, A. A. Grau; Structure and Use of ALGOL 60, H. Bottenbruch; List-processing Languages, Paul W. Abrahams; Computer Languages for System Simulation, Howard S. Krasnow; PERT/CPM, William C. Geoghan; Sorting and Merging, Martin A. Goetz.

Numerical and Statistical Methods. A Survey of Function-approximation Techniques, Granino A. Korn; Solution of Linear Algebraic Equations and Matrix Problems by Direct Method, James H. Wilkinson; Solution of Nonlinear Equations, Royce E. Beckett; Interpolation, Curve Fitting, and Differentiation, Kaiser S. Kunz; Numerical Integration, A. H. Stroud; Numerical Solution of Ordinary Differential Equations, R. W. Hamming; Numerical Solution of Partial Differential Equations, Walter J. Karplus and Venkateswararao Vemuri; Introduction to Statistical Methods, Granino A. Korn; Statistical Techniques and Computations,