

4 [2.05, 3, 5].—LOTHAR COLLATZ & WOLFGANG WETTERLING, *Optimierungsaufgaben*, Springer-Verlag, Berlin, 1966, ix + 181 pp., 21 cm. Price DM 10.80.

This book provides a clear and readable introduction into the fundamental principles of linear and convex programming, as well as the theory of matrix games. These principles provide a framework for a theory of Chebyshev approximations with applications to elliptic differential equations. This part of the book should be of particular interest. The difficult problems connected with the minimization of convex functions without constraints are not touched.

C. WITZGALL

Boeing Scientific Research Laboratories
Seattle, Washington 98124

5 [2.05].—MIECZYSLAW WARMUS, *Tables of Lagrange Coefficients for Quadratic Interpolations*, Polish Scientific Publishers, Warsaw, 1966, ix + 501 pp., 30 cm. Price Zl 180.

This volume, the second in a series of mathematical tables prepared at the Computing Centre of the Polish Academy of Sciences, gives values of the Lagrange interpolation coefficients $L_{-1}(t) = -t(1-t)/2$, $L_1(t) = t(1+t)/2$ to 11D; and $L_0(t) = 1 - t^2$ to 10D, all for $t = 0(0.00001)1$.

These tables are arranged in a condensed form, using the relations $L_{-1}(1-t) = L_1(t)$, $L_0(1-t) = L_0(t)$, and $L_1(1-t) = L_{-1}(t)$.

Herein the argument-interval is one-tenth that of the previously largest similar table [1] and two more decimal places appear in each of the tabular entries.

The author points out in the preface that these tables provide an easy method of calculating the value of a function corresponding to an argument given to $k + 5$ decimal places from tabular values for arguments given to k decimal places, and he illustrates this with a single numerical example, which includes an estimate of the error arising from such interpolation.

The procedure followed in the calculation of these tables is not discussed, and no bibliography of earlier tables is given.

It seems appropriate to this reviewer to mention here the equally voluminous, unpublished 8D tables of Salzer & Richards [2] for quadratic and cubic interpolation by the Gregory-Newton and Everett formulas.

J. W. W.

1. NYMTP, *Tables of Lagrangian Interpolation Coefficients*, Columbia Univ., New York, 1944. (See *MTAC*, v. 1, 1943-1945, pp. 314-315, RMT 162.)

2. HERBERT E. SALZER & CHARLES H. RICHARDS, *Tables for Non-linear Interpolation*, 1961. Copy deposited in UMT file. (See *Math. Comp.*, v. 16, 1962, p. 379, RMT 31.)

6 [2.10, 3, 6, 7].—R. E. BELLMAN, R. E. KALABA & J. LOCKETT, *Numerical Inversion of the Laplace Transform*, American Elsevier Publishing Co., Inc., New York, 1966, viii + 249 pp., 24 cm. Price \$9.50.

In numerous applied problems, characterized by ordinary differential equations, difference-differential equations, partial differential equations or other functional equations, the Laplace transform is often a powerful tool for obtaining a solution.