

The reviewer notes that when there are many solutions for some k , say 8 or more, then usually there are none at all for $-k$.

The programming for these tables is, of course, quite simple. A real challenge to number-theoretically inclined programmers would be to program the *theory* necessary for showing completeness, at least in the easier cases for negative k .

D. S.

1. M. LAL, M. F. JONES & W. J. BLUNDON, "Numerical solutions of the Diophantine equation $y^2 - x^2 = k$," *Math. Comp.*, v. 20, 1966, pp. 322-325.

2. O. HEMER, "Notes on the Diophantine equations $y^2 - k = x^3$," *Ark. Mat.*, v. 3, 1954, pp. 67-77. See also RMT **1208**, *MTAC*, v. 8, 1954, pp. 149-150.

3. OVE HEMER, *On the Diophantine Equation $y^2 - k = x^3$* , Uppsala, 1952. See also RMT **1068**, *MTAC*, v. 7, 1953, p. 86.

4. W. LJUNGGREN, "On the Diophantine equation $y^2 - k = x^3$," *Acta Arith.*, v. 8, 1963, pp. 451-463.

5. R. ROBINSON, "Table of integral solutions of $|y^2 - x^3| < x$," UMT **125**, *MTAC*, v. 5, 1951, p. 162.

90[H, X].—J. H. WILKINSON, *The Algebraic Eigenvalue Problem*, Oxford University Press, New York, 1965, xviii + 662 pp., 25 cm. Price \$17.50.

This excellent book is the work of an expert. He has given a unified treatment of the theoretical and practical aspects of the algebraic eigenvalue problem.

The reader will find this presentation to be clear, complete and up to date. Several of the author's recent results appear here for the first time. The simple listing of the chapter headings may indicate the scope of the work:

1. Theoretical Background
2. Perturbation Theory
3. Error Analysis
4. Solution of Linear Algebraic Equations
5. Hermitian Matrices
6. Reduction of a General Matrix to Condensed Form
7. Eigenvalues of Matrices of Condensed Forms
8. The LR and QR Algorithms
9. Iterative Methods

In the preface the author states, "The eigenvalue problem has a deceptively simple formulation and the background theory has been known for many years; yet the determination of accurate solutions presents a wide variety of challenging problems." He then systematically disposes of most of the problems. E. I.

91[I].—K. A. KARPOV, *Tables of Lagrange Interpolation Coefficients*, The Macmillan Company, New York, 1965, viii + 75 pp., 25 cm. Price \$5.75.

This book, which is Volume 28 of the Pergamon Press Mathematical Tables Series, is an attractively printed and bound English translation by D. E. Brown of the Russian *Tablitsy Koëffitsientov interpolatsionnoï Formuly Lagranzha*, published in 1954 by the Academy of Sciences, U.S.S.R. and reviewed in this journal [1].

An appropriate reference that has appeared since the original edition of this book is the tables of Karmazina & Kuročhkina [2].

J. W. W.

1. *MTAC*, v. 11, 1957, pp. 209-210, RMT **85**.

2. L. N. KARMAZINA & L. V. KUROČHKINA, *Tablitsy interpolatsionnykh koëffitsientov*, Academy of Sciences of the USSR, Moscow, 1956. See *MTAC*, v. 12, 1958, p. 149, RMT **66**.