

primes  $p = 1531$  and  $1543$ ; listing of the prime powers as  $p = 9, 25$ , etc.; and the continued listing of the arguments in some power-residue tables after the table has ended. However, these are demerits in aesthetics, and while they should have been corrected, they do not nullify the high utility of the tables.

D. S.

1. L. MCKEE, C. NICHOL & J. SELFRIDGE, *Indices and Power Residues for all Primes and Powers Less than 2000*; reviewed in RMT 64, *Math. Comp.*, v. 15, 1961, p. 300.

2. J. C. P. MILLER, *Table of Least Primitive Roots*; one copy deposited in UMT File. (See *Math. Comp.*, v. 17, 1963, p. 88-89, RMT 2.)

3. K. G. J. JACOBI, *Canon Arithmeticus, sive tabulae quibus exhibentur pro singulis numeris primis vel primorum potestatibus infra 1000 numeri ad datos indices et indices ad datos numeros pertinentes*, Berlin, 1839.

**73[F].**—DANIEL SHANKS, *Solved and Unsolved Problems in Number Theory*, Vol. 1, Spartan Books, Washington, D.C., 1962, ix + 229 p., 24 cm. Price \$7.50.

This book is an excellent introduction to number theory, well motivated by an entertaining and instructive account of the origin and history of the classical problems connected with perfect numbers, primes, quadratic residues, Fermat's Last Theorem, and other topics.

Superb in every respect, as an introductory account, as a history of number theory, as an essay in mathematical and scientific philosophy, this volume can be used either as a textbook in high school or college, as a book for self-study, or as a gift to the educated layman with the perennial query, "What does a mathematician do?"

This delightful and stimulating book should be on the shelf of anyone interested in mathematics.

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**74[G].**—I. M. GEL'FAND, *Lectures on Linear Algebra*, Interscience Publishers, Inc., New York, 1961 ix + 185 p., 23 cm. Price \$6.00.

The author presents in this book a very clearly written shorter text on linear algebra which would generally be suitable for a one-semester course at the junior level in the United States. The contents consist of four chapters (Chapter 1,  $n$ -Dimensional Spaces; Chapter 2, Linear Transformations; Chapter 3, The Canonical Form of an Arbitrary Linear Transformation; and Chapter 4, Introduction to Tensors), the first two chapters comprising about three-fourths of the book. The author is to be congratulated for his lucid discussions and proofs. The notation and the printing are excellent.

For those who wish to use this as a text, it should be mentioned that the author frequently assumes knowledge of results from matrix theory that American students, as opposed to Russian students, do not possess at this level.

R. S. V.

**75[I, L].**—F. W. J. OLVER, *Tables for Bessel Functions of Moderate or Large Orders* (National Physical Laboratory, *Mathematical Tables*, v. 6), Her Majesty's Stationery Office, London, 1962, iii + 51 p., 28 cm. Price 17s. 6d. (In U.S.A.: