matrix printer and is readable, but certainly not elegant. In compensation, the tables are very easy to use, since the spiral binding allows the pages to lie flat.

The tables also give $N(p)$, the number of positive non-residues $< \frac{1}{2}p$. In the introduction it is pointed out that for primes of the form $4m + 3$ we have

$$[\tfrac{1}{2}(p - 1)]! \equiv (-1)^{N(p)} \pmod{p}.$$

It is also indicated that for all such primes (but we must add >3) the class number, $h(-p)$, is given by

$$h(-p) = -\frac{1}{p} \sum_{a=1}^{p-1} \left(\frac{a}{p}\right) a.$$

The much more easily computed formula [1],

$$h(-p) = \frac{p - 1 - 4N(p)}{4 - 2\,(2/p)},$$

is not mentioned. The introduction also states that it can be "found" in the table that $N(p) = m$ for all primes of the form $4m + 1$. But surely one does not need the table to be convinced of this simple theorem. The quantity which is really useful for those primes is $2\sum_{a=1}^{m}(a/p)$, and not the redundant $N(p)$.

D. S.

1. E. Landau, *Aus der elementaren Zahlentheorie*, Chelsea Publishing Co., New York, 1946, p. 128.

36[G X].—V. N. Faddeeva, *Computational Methods of Linear Algebra*, Translated by Curtis D. Benster, Dover Publications, Inc., New York, 1959, x + 252 p., 21 cm. Price $1.95.

The first chapter of this book forms a clear and well-written introduction to the elementary parts of linear algebra. The second chapter deals with numerical methods for the solution of systems of linear equations and the inversion of matrices, and the third with methods for computing characteristic roots and vectors of a matrix. Most of the important material in these domains is to be found here, and many numerical examples which illustrate the algorithms and point out their merits and deficiencies are given.

The discussion is directed principally to the hand computer, and machine computation in the modern sense is hardly present, but the book must be regarded as a valuable guide for the worker in the general area of linear computation.

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37[G, X].—M. Midhat J. Gazalé, *Les Structures de Commutation à m Valeurs et Les Calculatrices Numériques*, Collection de Logique Mathématique, Série A, Monographies Réunies par Mme. P. Fevrier, Gauthier-Villars, Paris, 1959, 78 p., 24 cm. Price 16 NF.

The theme of this pamphlet is sets of operations which are complete in the sense that "conjunction" and "negation" (or "exclusive or," "conjunction" and "1," or