4 [2.20].—CHIH-BING LING, *On Values of Roots of Monomial-Transcendental Equations*, Department of Mathematics, Virginia Polytechnic Institute and State University, Blacksburg, Virginia. Ms. of 21 typewritten pp. deposited in the UMT file.

Herein are tabulated to 11S, in floating-point form, the first 50 real (or complex) roots of equations of the type $f(z) \pm z = 0$ where $f(z)$ represents one of the trigonometric functions $\tan z$, $\cot z$, $\sec z$, $\csc z$ (or the corresponding hyperbolic functions) and the exponential function $e^{\pm z}$.

The introduction includes details of the underlying calculations and a list of references to various applications of the tables.

These tables supersede similar ones published jointly by the author and Yeung [1], which have been found to be generally unreliable, except for the tabulated roots of $\tan z \pm z = 0$.

The author has informed this reviewer that the present tabular values have been thoroughly checked by substitution in the appropriate equations. As a further check, the reviewer has successfully compared the roots of $\tan z = z$ as herein tabulated with the corresponding 40D values calculated by Robinson [2]. Also, the accuracy of the tables corresponding to $f(z) = e^{\pm z}$ has been confirmed by independent calculations to 13S by Fettis [3].

This set of tables may be considered a sequel to a table [4] by the same author, consisting of roots of similar equations where $f(z)$ is, respectively, $\sin z$, $\cos z$, and the corresponding hyperbolic functions.

J. W. W.

1. S.-F. YEUNG & C.-B. LING, "On values of roots of monomial-transcendental equations," *Hung-Ching Chow Sixty-fifth Anniversary Volume*, National Taiwan University, Taipei, Taiwan, December 1967, pp. 196–204.

2. H. P. ROBINSON, *Roots of* $\tan x = x$, Lawrence Berkeley Laboratory, University of California, Berkeley, California, December 1972, ms. deposited in the UMT file. (See *Math. Comp.*, v. 27, 1973, p. 999, RMT **44**.)

3. H. E. FETTIS, Private communication.

4. C.-B. LING, *Values of the Roots of Eight Equations of Algebraic-Transcendental Type*, Virginia Polytechnic Institute, Blacksburg, Virginia, June 1965, ms. deposited in the UMT file. (See *Math. Comp.*, v. 20, 1966, p. 175, RMT **16**.)

5 [3, 9, 10].—MORRIS NEWMAN, *Integral Matrices*, Academic Press, New York, 1972, xvii + 224 pp., 24 cm. Price $14.00.

This book is a gem. It definitely belongs in the library of anyone interested in rings, matrices, number theory, or group theory.

The first five chapters cover the basic material on equivalence, similarity, and congruence of matrices. By page 15, the Hermite normal for a matrix over a principal ideal domain (p.i.d.) appears. But typical of the rest of the book, Dr. Newman gives the reader something new and interesting even in dealing with such a classical result as this: in Theorem II.4, he discusses the number of classes with respect to left equivalence which have a fixed determinant. By page 22, we have the proof that every left ideal in the matrix ring over a p.i.d. is also principal. It is short, easy, and devoid