Students will appreciate a large number of examples and exercises at the end of each section.

Hanna Schwerdtfeger, McGill University

Nomography, by Alexander S. Levens. 2nd edition, Wiley, New York, 1959. viii + 296 pages. $8.75.

An expanded version of the popular 1948 edition, this one includes three new chapters on circular nomograms, projective transformations, and the relationship between concurrency and alignment nomograms. Other chapters have been expanded to include methods for designing nomograms for four variables without the need for a turning axis, and material on nomograms consisting of two curved scales and a straight line, and three curved scales. The appendix has been expanded to 58 nomograms covering a wide variety of applications from statistics, engineering, biology, etc. The format has been considerably improved.

H. Kaufman, McGill University

Eléments d'algèbre, by Gaston Julia. Cours de l'Ecole Polytechnique. Gauthier-Villars, Paris, 1959. 209 pages. 38 NF = U. S. $7.93.

This is the reproduction of the lectures on algebra which the famous author presents to his first-year classes in the Ecole Polytechnique in Paris. Let us begin with a brief review of the content. Chapter I (pp. 1-25) "Groups, rings, fields" provides the reader with the terminology and the basic notions of abstract algebra, actually more than sufficient for the purposes of the book. Chapter II (pp. 27-89) "The finite-dimensional vector space $E_n$; bases" develops the foundations of linear algebra, mainly over the complex number field. The theory of linear equations with determinants is supposed to be known to the reader. The fact that $h + 1$ vectors in a subspace $E' \subset E_n$, generated by h linearly independent vectors, are always linearly dependent, is based upon non-trivial solubility of h linear homogeneous equations in $h + 1$ unknowns. While for a beginner this may be easier to understand than the usual procedure, a good deal of the motivation for a systematic theory of the linear vector space at this level is lost. There follows a theory of linear transformations and matrix algebra on more or less classical lines. However, the notion of rank of a matrix does not occur. For several simple facts as well as theorems of an advanced nature, mentioned without proof, reference is made to the author's two-volume work "Introduction mathématique aux théories quantiques" (Paris, 1958 and 1955). Similarity is discussed, but Jordan's canonical form is given without proof; reference is made to Jordan, to Schreier-Sperner



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