well acquainted with this language. Extensive use of results of Grothendieck, published, semi-published, and unpublished, is made (with unpublished results reviewed in the book). Those who can read the book will find it very interesting. A most unusual, but to this reviewer highly pleasing, feature of the book is the inclusion of many informal, but highly informative, discussions concerning methods and definitions.

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Modern College Algebra, by Daniel E. Dupree and Frank L. Harmon. Prentice Hall, Englewood Cliffs, N.J., 1965. ix + 250 pages. $ 5.95.

The authors set themselves the commendable goal of presenting college algebra in a modern setting that will communicate the "why" as well as the "how" of the subject. Unfortunately they do not progress very far toward this goal. With the exception of a long first chapter that covers logic, set theory and number systems and a brief appendix on the use of set theory in logic, there is little in the book that deserves the title "modern".

Although mathematical induction is introduced in Chapter 1, it is not used effectively in later chapters. The laws of exponents are presented with no mention of induction; the standard techniques are used for arithmetic and geometric progressions with induction mentioned only in the exercises.

The determinant and permutations are not treated as functions, although considerable time has been spent on properties of functions that could very well be used here.

The characterization of natural numbers as a subset of the real numbers is open to two interpretations, the more obvious of which is false. There is also a lack of unity between the definition of natural numbers and the ideas of proof by induction.

The notation leaves something to be desired. Why are the reals the only number system denoted by a script letter? There should be some discussion about the interchangeability of the notations p, p/1 and (p, 1) for an integer.

It is unfortunate that so many unproved theorems appear in the book as "axioms". It is true that many of them could not be proved at this level, but this should be more clearly recognized rather than hidden in this way.

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