College Algebra, by A. Adrian Albert. The University of Chicago Press, Chicago, 1963. 278 pages. $1.95 (Paperback).

In many colleges and universities, the traditional course in College Algebra is taught by graduate assistants, if it is taught at all. One of the reasons for the reluctance of senior faculty members to teach the course is the lack of discipline and organization in the standard textbook. Any mathematician will find it a genuine pleasure to teach from this reprinting of Professor Albert's book.

In the preface the author states: "College Algebra has a basic unity. It should consist of a study of the number systems of elementary mathematics, polynomials and allied functions, algebraic identities, equations, and systems of equations. The unity of the present text is achieved by fitting the standard topics of College Algebra into this pattern." Indeed the standard topics are covered and, one finds, for example, sections in the text on: factorials, permutations and combinations, logarithms, the binomial theorem, arithmetic and geometric progressions, quadratic equations, the remainder and factor theorems, Descarte's rule of signs, and Horner's method.

A feature of the text is the inclusion of topics which could be included in an expansion of the standard course. Among these are: the euclidean greatest common divisor process for both integers and polynomials, the unique factorization theorem for polynomials, and two chapters on matrices and quadratic forms.

This book can serve as good preparation for a course in modern algebra; the material is presented with care and rigor, and the student is not introduced to ideas which he will have to unlearn at a later date. [The g. c. d. of two integers is defined (p. 40) as their largest positive common divisor. This differs from the definition in Birkhoff and MacLane where a g. c. d. of two integers is defined as (p. 17) a common divisor which is a multiple of every other common divisor.] The prospective calculus student will also be well served by the numerous drill exercises, including a substantial number of oral exercises.

A review of the first edition of the book can be found in the American Mathematical Monthly, March, 1947, pages 174-175.

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Algèbre noethérienne non commutative, by L. Lesieur et R. Croisot. [Mém. Sci. Math. 154] Gauthier-Villars, Paris 1963. 117 pages.

The success of the ideal theory in commutative rings with either ascending (Emmy Noether) or descending (Emil Artin) chain conditions