Fundamentals of linear algebra, by A. H. Lightstone. ix+340 pages. Appleton-Century-Crofts, New York, 1969. U.S. $8.95.

Intended as a one-semester contemporary course in linear algebra, the book covers the usual material-determinants, matrices, an elementary theory of groups, rings, polynomials, linear spaces, linear operators, characteristic equations, lines, planes and quadratic surfaces. The deviation from other books is only in style and not in content. Most of the material of this book may be found in "Linear Algebra, An Introductory Approach" by C. W. Curtis. But the present book lacks the elegance and neatness of Curtis' book. The author is in a hurry to introduce as many new ideas and results. The result is a packed course, with not sufficient time for digestion of the ideas. For example, it is difficult to find much virtue in the discussion of cos and arcos functions or the generalization of the notion of cross product in the context. The student is unlikely to grasp this generalization in a first course. The notations tend to be complicated. For example, on p. 73, $aB\cdot r$ could have been taken as the definition of "matrix with multipliers". A lot of emphasis is laid on the virtue of an ordered basis. But everything can be done equally well with a fixed basis.

There is a nice way of computing the inverse of a matrix on pp. 84–85. Each chapter is followed by a large number of exercises. Each chapter is well motivated. There are one or two technical errors and some typographical errors.

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The origins of the infinitesimal calculus, by Margaret E. Baron. viii+304 pages. Oxford Univ. Press, New York; Pergamon Press, New York, 1969. $13.

This book offers material not easily available elsewhere in English for the mathematician interested in knowing the results reached concerning areas and volumes from 1635 (Cavalieri) to 1687 (Newton). Concerning Cavalieri and his predecessors, it is less reliable. Even the latter half of the book may be exasperating to historians by reason of its free use of modern notation, giving rise to many sentences like this (p. 181): "More important, however, is the geometrical transformation through which, by means of the relation $t/x=dy/dx$, Roberval transforms the integral $\int_0^a x\,dy$ into $\int_0^a t\,dx$."

The statement that Roberval, a quarter-century before Leibnitz, made use of any such relation as $t/x=dy/dx$ is hard to reconcile with the author's claim in her preface that "historical development is central and the methods which emerge are treated strictly within their historical context". It is even harder to square with her remark (p. 153) that Roberval's "style is obscure, verbose and difficult for, although he abandons any attempt to adhere to the rigourous geometric methods of his