

from analysis are recalled, the notion of the generalized inverse mentioned and literature for further reading suggested.

The book contains a great number of exercises as well as examples. It can be recommended not only to the students but to mathematicians with related field of interest as well.

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PRAGUE

Rings and Modules. BY PAULO RIBENBOIM. Wiley Interscience, New York (1969). vii + 162 pp. U.S. \$12.95.

This book was written for a first graduate course or possibly a fourth year honors undergraduate course in rings and modules. The book is well written and certainly deserves consideration by anyone interested in conducting an introductory course in rings and modules.

The organization is as follows: Chapter I consists almost entirely of definitions, which some students might find a bit bewildering. It seems worth mentioning that some definitions are never used in the sequel, and that tensor products are not defined but indeed are used, briefly and without referring to them by name, later in the book.

Chapter II consists of the basic results in ring theory, namely: the fundamental isomorphism theorems, Jordan-Holder theorem, Remak-Krull-Schmidt theorem, Fittings lemma, Jacobson radical, prime radical, Wedderburn-Artin theorem on semi-simple rings, etc. One could, with little effort, start with Chapter II, referring to Chapter I when necessary. The last part of Chapter II deals with the classical results on the centralizer and double centralizer of a module.

The last chapter deals with three separate topics: modules over principal ideal domains, rings of linear transformations of a vector space, and Von Neumann regular rings. Each section goes deep enough into its topic to give the student the feeling that he has been shown more than just the surface of the subject but has indeed begun to scratch the surface. This I feel is the real virtue of the book.

As the author points out, if you want an encyclopedic book on ring theory this is not for you, if you are looking for a beginner's book with a certain amount of depth in what it does cover this may fill the bill.

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