

line, rather than to a course covering a somewhat less concentrated list of topics in real function theory. The first, unarguably positive, change is the addition by the editor of appendices to several chapters; these show how results stated in the original text only for bounded measurable sets can be extended or adapted for unbounded sets. The second, or negative, change is the omission of the last eight chapters of the original work. This brings the scope of the text down to approximately the material needed for a one semester course of measure and integration on the real line, if it is assumed that the student already knows his ϵ from his δ , $\lim \sup$ and $\lim \inf$, and uniform convergence; all these matters are used freely through the text. The present book ends with the chapter on absolutely continuous functions of one variable and their relation to differentiation and integration. It is easy to agree with the editor that, in an introductory course in measure theory given in a limited time, such topics as singular integrals, transfinite induction, set functions, Baire classification of functions, a little functional analysis, and a chapter of the contributions of Russian mathematicians to the theory of real functions, can be omitted without unfairly distorting the subject. Unfortunately Fubini's theorem has also been lost in this cut; as this is the last of the basic theorems of the Lebesgue theory, it would have been good for the student if it could have been kept available. The author and editor have both displayed considerable knowledge of the subject under discussion. All the kindly reviews of the other versions of this book, as far as they refer to the early chapters, apply as well to this edition. The style of the present work is very smooth; the clarity of the author's discussion is carried into English with none of the stiffness of expression which plagues translators.

M. M. DAY

The construction and study of certain important algebras. By C. Chevalley. (Publications of the Mathematical Society of Japan, no. 1.) The Mathematical Society of Japan, 1955. 6+64 pp.

This booklet reproduces lectures given by the author in Japan in 1954 on the main topics in multilinear algebra. But the subject is approached from an unusual point of view, the importance of which has only been realized during the last few years, mainly in the recent work on homology and Lie theory; and it is chiefly for the introduction it presents to these new methods that the book is especially valuable, being probably the first of its kind to appear in print.

The main themes of the book are the notion of "*universal*" algebra with respect to a given property, and the notion of *graded* algebra.