

theorem. For the most part the development here follows Kodaira and Kakutani and culminates in a proof of their theorem on the completion regularity of Haar measure. Much of this material appears here for the first time in book form. These chapters constitute the focal point of the whole development, a fact which explains to some extent the arrangement and choice of material in the earlier chapters. For instance, properties of Carathéodory outer measure, and most results pertaining specifically to measure in metric spaces, appear only among the exercises. For the same reason, many important results that belong properly to the theory of real functions are omitted altogether. There is no discussion of integration as inverse to differentiation, and the density theorem appears only in a generalized form applicable to Haar measure. The surprising thing, however, is that so much material is included without undue condensation. It seems likely that this book will come to be recognized as one of the few really good text books at its level. It can hardly fail to exert a stimulating influence on the development of measure theory.

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A decision method for elementary algebra and geometry. By Alfred Tarski. Prepared for publication with the assistance of J. C. C. McKinsey. Berkeley and Los Angeles, University of California Press, 1951. 3+63 pp. \$2.75.

The results of this monograph were obtained by the author in 1930. The material in its full development was published privately (and hence not reviewed in the *Bulletin*) by the Rand Corporation in 1948. The present edition is simply a reprint of that edition with corrections and some supplementary notes.

By elementary algebra Tarski means that part of the theory of real numbers which can be expressed in the formal language described as follows: (1) Variables of this language stand for real numbers. (2) There are three constants, "0", "1", and "-1". (3) A term is defined (recursively) as a constant or variable, or else of the form $\alpha + \beta$ or $\alpha \cdot \beta$ where α and β are any terms. (4) An atomic formula is either of the form $\alpha = \beta$ or of the form $\alpha > \beta$ where α and β are terms. (5) A formula is either an atomic formula or made up from atomic formulas by means of truth functions and quantifiers in the usual manner of the first order function calculus. In this language we can discuss any integer and any polynomial we choose; but, although we can talk of all real numbers having a certain property, we cannot talk of *all* integers having a property or of *all* polynomials having a