2. For the professional mathematician:

Lectures on Modern Mathematics, Volume 1, edited by T.L. Saaty. John Wiley and Sons, Inc. New York 1963. ix + 175 pages. \$5.75.

This is the first of three volumes containing lectures given by distinguished mathematicians on one of their fields of interest, in most cases not a report on what has been done there, but rather a brief enumeration and motivation of recent results and an explicit formulation of related unsolved problems which the authors consider as important and hopeful. Contents: 1. A Glimpse into Hilbert Space, by P.R. Halmos, 2. Some Applications of the Theory of Distributions, 3. Numerical Analysis, by A.S. Householder, 4. Algebraic Topology, by S. Eilenberg, 5. Lie Algebras, by I. Kaplansky, 6. Representations of Finite Groups, by R. Brauer. Each paper is followed by a list of references.

H. Schwerdtfeger, McGill University

Games, Gods and Gambling, by F.N. David. Griffin, London; Hafner, New York, 1962. 275 pages. \$6.50.

Todhunter's admirable "History of the Mathematical Theory of Probability" is now nearly a century old. It is remarkable that Miss David's smaller book is the first general book-length account of the history of probability. Almost as surprising is the fact that her book starts and finishes earlier than Todhunter's, ranging from pre-history to de Moivre. The author hopes to write a separate monograph on Laplace who forms the culmination of Todhunter's volume.

The other end of the time-spectrum is more immediately responsible for the title of the book. Readers of Dr. David's opening article in the valuable <u>Biometrika</u> series of "Studies in the history of probility and statistics" will expect the early portions of the book to make fascinating reading. This is further enhanced by the inclusion of a number of plates portraying ancient games and astragali, the forerunners of dice. Indeed, it is the symmetry of the modern die that made it easy for gamblers to notice the regularity of chance phenomena which in turn came to interest men such as Paccioli, Cardano, Ferrari, Galileo, and of course, Pascal and Fermat. Continuing in the same tradition are James Bernoulli, Montmort, and perhaps the hero of the book, poor de Moivre, who found refuge but not his due in England. The author indicates and attempts to evaluate the contributions made by these pioneers. She provides some helpful thumb-nail sketches and does not shirk the knotty problems posed by widespread plagiarism.

Equally important in the development of the calculus of probabilities was increasing familiarity with a simple number system. How