to use the Central Limit Theorem seven pages before it is introduced in the text. Further, the inadequate discussion given to such an important result deals only with the mean of a random sample, while the earlier exercise would, were it not marred by a misprint in a crucial place, necessitate application of the Theorem to the sum of random variables. This distinction, while slight, is nevertheless one which must cause great trouble to an inexperienced reader. Such a reader will encounter similar difficulties—and some more serious—throughout the text.

The book closes with 30 pages of tables, mainly specially computed tables of cumulative binomial or Poisson probabilities, answers (several of which are incorrect) to selected exercises, and an index.

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Fundamentals of Probability Theory and Mathematical Statistics. By V. E. Gmurman. English translation edited by I. I. Berenblut. Illiffe Book Ltd., London (1968). 249 pp. 50 shillings.

During the last decade there has been a tremendous growth, especially, of elementary textbooks on Statistics, and the present book is one of them. It contains the usual material that is found in other elementary textbooks, except decision theory, nonparametric statistics, testing of hypotheses, and analysis of variance. Perhaps, Berenblut could have included these topics to make the book more suitable for the English market. The book stresses the calculating rather than the analytic aspect. Most of the problems in the book are direct applications of the theory and there are no tricky problems. Further, very few problems show applications to other disciplines, such as, sociology, economics, and engineering.

The book is divided into three parts: (1) Probability, (2) Calculus of Random Variables, (3) Statistics.

The first part consisting of five chapters deals with very simple problems of numerical probability including Bernoulli's theorem. The second part consisting of the next eight chapters introduces the descriptive ideas of univariate and bivariate distribution functions and the constants (parameters) associated with the distribution functions. A chapter is devoted to the law of large numbers. The last part consisting of only four chapters is devoted to elementary statistical methodology including the calculations of confidence intervals and sample correlation coefficient.

The book is almost error-free and the printing and the general getup of the book is fairly good. However, there is no special feature of the book which is worth

mentioning and for nearly the same price the elementary methematical statistics textbooks by American authors, such as, Freund, Brunk, Hoel, Tucker, and others, are preferable for a variety of reasons.

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Systèmes Échantillonnés Non Linéaires. BY PIERRE VIDAL. Gordon and Breach, New York (1968). xiv+363 pp. U.S. $27.50.

The first in a series of monographs devoted to various aspects of systems theory, the present volume is a substantial summary of the methods and techniques presently employed in the study of nonlinear sampled-data systems. The first two chapters on the calculus of finite differences and the z-transform lay the groundwork for a good portion of the text. Separate chapters treat the methods based on signal flow graphs, describing functions (method of the first harmonic), and the incremental phase plane. The major chapters are concerned with problems of stability, time response, and linear oscillations. Stability is discussed under the two broad headings of geometric criteria (Cypkin and Jury-Lee) and algebraic criteria based on Liapunov's method. The latter criteria are associated with the names Kalman-Bertram, Wegrzyn-Vidal, Shea, Puri-Drake, Szegö-Kalman. The book concludes with two major applications: pulse width modulation systems and quantized systems.

The treatment in places is highly abbreviated; for example, the brief statement of functional analysis techniques could stand substantial elaboration. Fortunately a well chosen bibliography is appended to each chapter. Even in this era of relative affluence the price is not quite right. Note: the preface indicates that the volumes in this series are published simultaneously in English and in French.

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Combinatorial Methods in the Theory of Stochastic Processes. BY LAJOS TAKACS. Wiley, New York (1967). vi+262 pp.

This book is both interesting and useful for anyone concerned with queueing theory and other applications of stochastic processes. The main topic is the study