

course in probability at the pre-calculus level. Consequently, its attention is restricted to finite probability models, i.e., to models representing experiments with a finite number of outcomes. To facilitate numerical illustrations, a discussion (without proof) of the normal and Poisson approximations is included. The book contains over 400 problems, some of which provide simple exercises while others extend the ideas and results of the text, and instructors may obtain answer books by writing to the publisher.

Anyone facing the problem of having to teach an elementary course in probability at the pre-calculus level should definitely consider this book as a possible text, for it is a well written, rigorous treatment of probability restricted to finite models.

Miklos Csörgő, McGill University

Multidimensional Gaussian Distributions, by K.S. Miller. John Wiley and Sons, 1965. vii + 129 pages. \$ 9.50.

This is a book on the properties of the multivariate normal distributions and some of its various aspects. In the preface the author states that: "Our objective has been to present the basic facts concerning multidimensional Gaussian distributions in a concise, crisp, and we hope elegant form."

The author has done just that, and has done it in exactly the "concise, crisp" spirit. Hence, this book cannot in any sense be recommended as a text, but only as a reference. To statisticians, it will be somewhat disappointing, since no attention is given to sampling distribution theory from the multivariate normal. These are the negative aspects of the book.

On the positive side, however, one should note the following:

- (i) The clear definition of Rayleigh Distributions and their use to find the distribution of various functions of X_n , where X_n is an $(n \times 1)$ column vector having the n -variate normal distribution.
- (ii) The attention given to non-central univariate-distributions.
- (iii) The use of matrices and vectors including a well written introductory chapter on needed matrix theorems, quadratic forms, etc.
- (iv) A chapter giving applications to Gaussian noise problems.

Irwin Guttman, University of Wisconsin

Elements of the Theory of Probability, by Émile Borel. Translated by John E. Freund. Prentice-Hall, Inc., Englewood Cliffs, N.J. 1965. xiv + 178 pages.

In 1909 the author published a book, under the same title as this one, which is no longer in print. This new edition was originally pub-