are presented in their simplest form. Thus, in the case of linear interpolation an expression for the remainder term is derived, but for the general nth order interpolation, it is simply stated.

The first two chapters cover the rules for operating with approximate numbers, rounding off numbers, estimating errors, and constructing tables. The remaining chapters deal with procedures for solving actual problems and the theory on which they are based. These include the approximate solution of equations, systems of linear equations, interpolation polynomials, approximate computation of integrals, and approximate integration of differential equations. Problems are included at the end of every Chapter.

The book is primarily a numerical methods text but without a disregard of numerical analysis results. Thus in many examples, the answer is accompanied by an estimate of the remainder term or, in the case of iterative methods, conditions for convergence are included. In some ways the book is similar to Stanton's "Numerical Methods for Science and Engineering" but without the extensive numerical calculations.

It was interesting to note that the only English language texts included in the list of recommended literature of the original Russian edition were W.E. Milne's "Numerical Calculus" (1949) and "Numerical Solution of Differential Equations" (1953).

Charlotte Froese, University of British Columbia

Probability, by Grace E. Bates. (A-W Series in Introductory Mathematics). Addison-Wesley Publishing Company, Inc., 1965. v + 58 pages. $1.00.

This booklet is an interesting attempt to introduce the beginning college student to the subject of probability in preparation for more extended courses. The treatment is confined to finite sample spaces, thereby avoiding calculus, and begins with the use of Venn diagrams in the handling of the probability of the union of several events and of conditional probability. Tree diagrams are then introduced, this being a feature stressed throughout. There follows a discussion of the binomial distribution whose application to acceptance sampling leads naturally to operating-characteristic curves. The main text is concluded with a section on Markov chains, an appendix providing a four-page account of the necessary matrix theory. Another appendix deals with permutations and combinations. Throughout there are many exercises, mostly quite easy, with answers to all. The reviewer feels that the account will serve well to whet the student's appetite and clearly the author's aim has not been to attempt any systematic coverage of even the most basic material. Thus the reader does not hear of expected values, including the mean, nor of the Poisson and the normal distributions. It therefore comes as somewhat of a shock to learn that the booklet "can serve as

the primary text for a probability unit in National Science Foundation Institutes for secondary school mathematics teachers." Rather its merit seems to be a clear, pleasant, and non-standard presentation which will be of value to any student with high school mathematics trying to get a glimpse of the subject of probability.

H.A. David, University of North Carolina

Mathematische Statistik (Die Grundlehren der mathematischen Wissenschaften, Bd 87), by B.L. van der Waerden. Springer-Verlag, Berlin, Heidelberg, New York, 1965. xii + 360 pages. Price:DM49,60.

This second edition of Professor van der Waerden's book is essentially a reprint of the first edition (Springer-Verlag, 1957), which has had a considerable success as an introductory text in statistics for the mathematically minded student with fair mathematical background, including some knowledge of complex function theory. However, knowledge of Lebesgue integration and of matrix theory is not assumed.

The chapters are written with the intention to be independent of one another. Proofs of some theorems, readily available elsewhere, are omitted. At the same time the book is a logical unity in the sense that it is based entirely upon the Kolmogorov axioms of probability given in the first chapter, and on the fundamental notions developed in the first two chapters.

The chapters are: general foundations; probability and frequency; mathematical tools; empirical determination of distribution, mean and variance; Fourier integrals and limit theorems; Gaussian variables and Student's test, least squares; estimation; evaluation of observed frequencies; bio-assay; tests of hypothesis; rank tests; correlation. A collection of frequently used tables is included and many examples of application are also given.

It is regrettable, though understandable, that important topics - such as sequential test, theory of statistical decision functions, stochastic processes - had to be left out from both editions of this introductory text.

The book is highly recommended as a logical, mathematically sound introduction to the classical chapters of mathematical statistics.

Miklos Csorgo, McGill University

The Theory of Sets and Transfinite Arithmetic, by Alexander Abian. W.B. Saunders Company, Philadelphia and London, 1965. ix + 406 pages. $10.80.

This seems to be an almost ideal textbook for a course which in-