

followed. The arrangement of bibliographies and the references make it difficult in some cases to find out exactly which work is the source for a given result, and therefore where further material may be found.

The above short outline does not suggest the remarkable amount of material in this book. The author's compact style enables him to include an extraordinary mass of ideas and theorems in a systematic and coherent fashion. At each stage he usually succeeds in achieving the utmost in generality, both in the large and in minor details—for example in allowing infinite-valued expectations wherever possible. This book will be a standard reference text for years, and students will find it indispensable, although difficult.

J. L. DOOB

General topology. By J. L. Kelley. New York, Van Nostrand, 1955. 14+298 pp. \$8.75.

The appearance of a comprehensive treatise in English on present day set-theoretic topology is an important event. The rapid progress in set-theoretic topology during the past 20 years, and the ever increasing applications of this discipline to analysis, make the appearance of the volume under review particularly appropriate at the present time. Professor Kelley has set himself the task of producing a book useful for both students and specialists, and he has succeeded to a remarkable extent in reaching both of these somewhat inconsistent goals. Like many other texts of this genre, the present volume could be understood, at least in theory, by any intelligent person who can read English. All of the machinery is supplied; but a knowledge of the real numbers and elementary abstract algebra as set forth for example in Birkhoff-MacLane (*A survey of modern algebra*, rev. ed., New York, Macmillan, 1953) and a thorough knowledge of elementary analysis are certainly minimal prerequisites for appreciating this book.

The author's style is spirited, to say the least. The atmosphere of an informal and humorous lecture pervades the book, especially in the first part. An essential difference between oral and written communication is well illustrated here, for some sallies that would clearly enliven a lecture are less felicitous in print. (For example, a very special case of Fubini's theorem is designated without further comment as Fubinito (p. 78), and a *topologist* is defined as a man who doesn't know the difference between a doughnut and a coffee cup (p. 88).) An occasional solecism was noted (e.g., p. 135, line 7), and one might wish that the author adhered to the "which" and "that" precepts of Fowler. However, these are but trifling criticisms of a