

an isometry is discussed in the Introduction; Chapter I is concerned with translations, half-turns and rotations; Chapter III deals with reflections and glide reflections.

The importance of this book to secondary school mathematics lies in its description of the idea of the group-theoretic foundation of geometry.

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Sets, Sequences and Mappings - The Basic Concepts of Analysis, by Kenneth W. Anderson and Dick Wick Hall. John Wiley and Sons, New York, 1963. x + 191 pages. \$5.00.

The subtitle gives the true description of this book. It is not a text on Set Theory, but an introduction to Analysis. The authors undertake to supply the material that is "beyond the scope" of an elementary calculus text but which the advanced calculus texts "assume the reader is familiar with". This objective is achieved in the first five chapters. Chapter six is an introduction to metric spaces. The book is designed for a one semester course for sophomores.

Wherever possible the approach is by way of sequences. Continuity is defined in terms of the preservation of convergence of a sequence, but the equivalent characterizations in terms of open sets and the " $\epsilon - \delta$ " notation are proved.

There are few logical gaps. All necessary results are either proved or stated with proofs left to the exercises. A more complete discussion of the real numbers and of order relations would avoid the risk of some confusion. The authors state that they avoid the use of "sketches", but recommend that the student and instructor supply them. This principle seems to be too rigidly followed. There are places where a sketch could clarify a point.

The book shows the beneficial effects of being used in class during its development. Several points that often confuse students receive special attention. One example is the justification for using $\epsilon / 2$ instead of ϵ in applying the definition of convergence. The discussion of the absolute value is well done.

There is an adequate index and also a list of axioms and key theorems. About one-half of the problems consist of supplying details omitted in the text.

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