
Review

Reviewed Work(s): Films by ; Volumes of Shells. by George F. Leger and H. M. MacNeille

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John F. Randolph. *Basic Real and Abstract Analysis*. Academic, 1968. No detailed treatment of metric or metric linear spaces, but E^m is treated as a metric space and spaces l^2 and L^2 are discussed.

H. L. Royden. *Real Analysis*. Macmillan, 1968. Highly recommended as a text or for supplementary reading. Also an excellent introduction to Functional Analysis. Includes more material than needed for a first year course. Allows selection to emphasize various topics. The approach is topological but accessible for a first course.

B. Sz-Nagy. *Introduction to Real Functions and Orthogonal Expansions*. Oxford, 1965. Recommended highly for supplementary reading. Contains no formal treatment of metric spaces, topological spaces or metric linear spaces. The approach is classical. Contains applications to L^p Spaces, Fourier Series, Orthogonal Sequences of Functions and Summability Theory.

Angus E. Taylor. *General Theory of Functions and Integration*. Blaisdell, 1965. Recommended for supplementary reading. It seems more suitable for a bone fide Function Theory Course.

G. S. GILL, Brigham Young University

FILMS

Volumes of Shells. By George F. Leger. Calculus Film Project of the MAA under direction of H. M. MacNeille. Available (rent or buy) from Modern Learning Aids in the U. S. and Canada. 8 min., 16 mm., color.

This eight minute color film discusses the representation of the volume of a solid of revolution as a definite integral, approximating the given solid by a finite union of cylindrical shells. The presentation is well conceived and should be accessible to the average calculus student. Although the same material could be presented just as clearly by a talented lecturer working at the blackboard, the film should be a useful supplement to the standard calculus course, either for showing in the classroom or (even better) for individual viewing outside the classroom on the compact equipment available for this purpose. The film should probably be regarded as supplementary to the lecturer's presentation of the material, rather than intended to replace it. A series of such films when so used should be very beneficial in stimulating the students' interest in calculus, by adding variety to the subject and making it less formidably abstract. They might also serve to improve the quality of the lecturer's presentation, by providing both him and the students a standard of comparison.

ERRETT BISHOP, Univ. of California, La Jolla

TELEGRAPHIC REVIEWS

The following abbreviations indicate suggested uses: T (textbook), S (supplementary student reading), P (professional reading for the teacher), TT (teacher training), L (library purchase), 13 (freshman level)—18 (second graduate year). A boldface star (★) marks a notable book of general interest.

Algebra

Matrix Theory. By J. N. Franklin (Calif. Inst. of Tech.). Prentice-Hall, Englewood Cliffs, N.J. 1968. \$10.95. "A rigorous but practical approach to matrix theory for