Great care is taken to show the relation between hypothesis and conclusion. Effective use is made of "counter examples." There are many exercises.

The amount of space devoted to specific applications is indicated by the following numbers of pages: mercator maps, 1; least squares, 1; mass, center of gravity, moment of inertia, and force of attraction, 7; work, 1; vibrating strings, 8.

Criticisms: Only a few misprints were noted, such as: p. 13, Case II, $s=\varphi(r, s, t)$ should read $x=\varphi(r, s, t)$; p. 101, Theorem 1, C' should be C^1; p. 263, line 1, S_n should be σ_n. On page 5, and in the Index of Symbols, "not" is denoted by $|$, whereas in the text, "not" is denoted by /.

The text contains only 40 figures, many of which are rudimentary.

Italic letters are used for both scalar and vector variables. (While this is logically sound, it is a questionable psychological hazard.)

The author's English tends at times to be cryptically terse. For example, Exercise 8 on page 328 reads: Prove the rest of the orthogonality and normality relations.

On page 50 the author states: By a *vector* we mean a directed line segment. Farther down this page the author writes: DEFINITION 1. *A vector r is a triple of numbers* (r_1, r_2, r_3). A similar difficulty occurs in connection with homogeneity (p. 14) and ∇ (p. 65).

Conclusion: Students who can adapt themselves to Professor Widder's style will surely find this text to be elegant and cogent, and an admirable introduction to the finesse of mathematical methods.

C. C. TORRANCE

Antennae: an introduction to their theory. By J. Aharoni. New York, Oxford University Press, 1947. 8+265 pp. $8.50.

Antenna theory is a promising field of activity for mathematicians of varying degrees of expertness and "purity." Most of its boundary value problems and all of its integral equations are both difficult and intriguing. Antenna theory offers an opportunity for fundamental contributions both to the theory of partial differential equations and to the theory of integral equations of the first kind. Unfortunately it is not easy for the mathematician to become acquainted with antenna problems, for most books on the subject he would find unreadable. The present volume by J. Aharoni may remedy this situation. Although *Antennae: an introduction to their theory* is not written primarily for mathematicians as such or for the purpose of stimulating their interest in antenna problems, it is a book which is likely to be intelligible to them. Neither special engineering background nor