The scope of the book will become apparent from a brief survey of its contents. After treating the basic notions like convex cover, supporting and separating planes, convex polyhedra (called polytopes), the tract turns in Chapter 2 to Helly's and Carathéodory's theorems, their interrelation and some generalizations. Convex functions, in particular distance and supporting functions follow (Chapter 3). Then distance for convex sets, Blaschke's Selection Theorem and the approximation of a convex set by polyhedra and regular convex sets are discussed. Chapter 5 deals with linear and concave families of convex sets, mixed volumes, Steiner's symmetrization, the Brunn-Minkowski theorem (Brunn is spelled as Brünn throughout), and Minkowski's inequalities. The more general inequalities of Alexandrov-Fenchel are stated without proof.

In Chapter 6 we find some extremal problems like the isoperimetric problem, and the relations between the inradius, circumradius and the diameter, also Besicovitch's result on the asymmetry of plane convex sets. Sets of constant width are the topic of the concluding chapter.

The book will well serve its purpose of providing an introduction to the field for "those starting research and for those working on other topics who feel the need to use and understand convexity."

HERBERT BUSEMANN

The numerical solution of two-point boundary problems in ordinary differential equations. By L. Fox. New York, Oxford University Press, 1957. 11+371 pp. $9.60.

If insistence on deductive reasoning is one of the characteristics of mathematics, the numerical solution of mathematical problems is not a branch of pure mathematics. In its methods and spirit it is more closely related to the applied sciences, in that incomplete induction based on experimental evidence is the ultimate criterion, even though a good measure of theoretical analysis is indispensable for guidance and interpretation. It is true that there are numerical procedures whose theory is so well understood that a result can be obtained which is safely embedded between double numerical inequalities. However, at this time, and for the forseeable future, the number of practically important problems in this comfortable class is, and will remain, depressingly small. A good specialist in the art of computation should therefore be able to resist the mathematician in him, who might lure him into the ideal realm of pure analysis, away from his concrete problems, without, on the other hand, losing the incentive of availing himself of all the mathematics, highbrow or lowbrow,