In the latter part of the book, the general recursive functions themselves (in the absolute sense) and their explicit form are treated very fully, but the associated notions and applications are treated less fully or only cited. In writing this book Mrs. Péter has carried out a considerable undertaking; and to go further would have constituted a still greater one, and required either a much larger book or a more compact style.

Only a minimum of knowledge. of elementary number theory, analysis, and set theory including transfinite ordinals is presupposed and none of mathematical logic. Mrs. Péter aims to make the subject intelligible to the beginner by working out the treatment of many topics (particularly in the special theory) on an example, whence the reader can surmise how the treatment would go in general (or consult the literature). This method has both advantages and disadvantages. No student can complain that he has lost contact with the reality for want of concrete examples; but an unwary reader may be oppressed by the immense amount of detail involved in working out the examples and proofs.

<div align="right">S. C. KLEENE</div>

Infinite matrices and sequence spaces. By R. G. Cooke. London, Macmillan, 1950. 14+347 pp. 42s.

This book, which might be considered a continuation of Chapter XII of Dienes' *Taylor series*, is a useful and welcome adjunct to the recent book by Hardy, *Divergent series*, Oxford, 1949. The overlap between these is slight since the present book is largely concerned with the study of general properties of classes of regular summability transformations.

Chapter 1 introduces several special classes of infinite matrices and certain of the special problems that arise in connection with their algebraic properties such as the ever-present need for the consideration of the validity of interchange of limit operations which leads, for example, to the failure of the associative law. Chapters 2 and 3 deal with the existence of left- and right-hand inverses and annihilators in rings of matrices, the notion of a "bound" (norm) and of weak convergence of sequences of matrices, and the special problem of solving the equations $AX = XD$ and $AX - XA = I$ for specified A and diagonal D. In Chapter 4, the class of K-matrices which transform convergent sequences into convergent sequences is characterized, as well as the subclass of Toeplitz T-matrices and the analogous