and no mention of spectral theory. One is left, therefore, with the feeling that the need for a comprehensive book on the subject has not quite been met.

A.C. Thompson, Dalhousie University

Einführung in die Graphentheorie, by Jiří Sedláček. Teubner, Leipzig, 1968. 171 pages. Kcs 23.

This book is a German version of the author's "Kombinatorika v teorii a praxi Úvod do teorie grafů" which appeared in 1964; its purpose is to provide an elementary introduction to graph theory, not only for students in mathematics but also for students in other disciplines where graph theory might have applications.

The book begins with a short chapter on sets, mappings, permutations, and groups. The second (and longest) chapter deals with the basic definitions and properties of undirected graphs; some of the topics mentioned are connectedness, trees, separating sets, Euler graphs, factors, chromatic numbers, and point-bases. Directed graphs are treated in the third chapter; much of the emphasis here is on connectedness properties and how these are reflected in properties of the corresponding incidence matrices. It is shown that the set of all paths of a directed graph form a category. The book concludes with a short chapter of historical remarks.

There are many diagrams in the text and there are frequent references - especially in the exercises - to additional results in the literature.

J. W. Moon, University of Alberta

Twelve geometric essays, by H.S.M. Coxeter. Southern Illinois University Press, Carbondale, Illinois, 1968. xiii + 242 pages. U.S. $7.00.

This book is a collection of twelve first-rate mathematical papers by Professor Coxeter, rather than a collection of "philosophical ramblings" as the title might, at first glance, suggest. The papers have all appeared in various journals and books over the last 33 years.

The papers give an overall view of the geometrical topics which have interested Professor Coxeter. Thus we find papers on polytopes (including the famous Wythoff construction for uniform polytopes), honeycombs and sphere arrangements in both Euclidean and non-Euclidean spaces, configurations, and applications of geometry to number theory ("Integral Cayley Numbers") and relativity ("Reflected Light Signals"). As is to be expected in Coxeter's work, group theory and projective geometry are the basic tools.

The concluding chapter, called briefly "Geometry" appeared in "Lectures on Modern Mathematics, Vol. III" [John Wiley and Sons Inc., 1965]. It is itself a summary of the geometry treated in this book, and should "help to reveal the healthy state of development of this fascinating subject, including its interactions with other branches of... mathematics".

Comprehensive bibliographies are found in each chapter, and the index is most helpful. The extensive list of references in the last chapter merits special notice.

C. W. L. Garner, Carleton University

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