

are practically already split. For example, the first 13 problems deal with partitions and the last 24 with networks; similarly, the first six sections discuss partitions and the last six sections study networks.

There are 197 problems in the book. These serve to present many additional results and also to provide exercises for the reader to use the combinatorial techniques developed in the text. The problems are in general well constructed. The extensive references also enhance the value of the book. The book, dedicated to E. T. Bell, refers to polynomials named after Appell, Bell, Chebyshev and Legendre, as well as to numbers attributed to Bernoulli, Euler, Fibonacci, Lah, and Stirling. In view of the technical and often subtle nature of the subject matter, it is not always easy reading. However, the persevering reader will be rewarded, especially if he works out some problems. The book makes obsolete much of the previous written material on combinatorial analysis, and in general the reviewer would recommend that if one is searching for combinatorial information, he should consult this book before looking elsewhere.

The author has succeeded in gathering together a wealth of combinatorial results and methods. Bell Telephone Laboratories is to be congratulated on having provided him with the environment and facilities to make the preparation of such a book possible.

FRANK HARARY

*Equazioni A derivate parziali.* By F. G. Tricomi. Rome, Edizioni Cremonese, 1957. 12+392 pp. L. 5500.

This book gives an interesting introduction to the theory of partial differential equations. It is divided into four chapters which deal with the theory of characteristics (Chapter 1), hyperbolic equations (Chapter 2), elliptic equations (Chapter 3) and equations of the parabolic and mixed type (Chapter 4). In roughly four hundred pages of text the reader is provided with a good and up to date introduction to these topics. It is true that other aspects of these topics might have been considered, but for this level the author is entitled to his tastes. This text provides a healthy balance between the mathematical methods required for the solution of certain partial differential equations and the underlying theory. Numerous problems from classical theoretical physics are discussed and there is an interesting set of problems at the end of each chapter. The written style is superb.

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