The other two groups deal with a variety of plane situations: measures of approximation of a convex set by another convex set of some given class (symmetric sets, sets of constant width etc.), extremal properties of triangles inscribed in and circumscribed about convex sets, properties of curves of constant width, and so on.

Although the general level and workmanship are inferior to those of the author's Cambridge Tract on convexity, the present collection contains some interesting and important things and will be of interest to the specialist.

Z. A. Melzak, McGill University

Fallacies in Mathematics, by E.A. Maxwell, Cambridge University Press, Macmillan Company of Canada Ltd. $2.75.

In this book the author, a Fellow of Queen's College, Cambridge, is acquainting his readers (College and High School teachers as well as interested pupils) in an often amusing and always interesting way with the fallacies a mathematician is apt to meet in the fields of elementary geometry, algebra and trigonometry and calculus. He distinguishes between mistakes (not discussed in the book), howlers and fallacies in the proper sense like this gem: $1 = \sqrt{1} = \sqrt{(-1)(-1)} = \sqrt{-1}\,\sqrt{-1} = i.i = -1$.

The first 10 serious chapters presenting a choice selection of fallacies in each of the fields with subsequent detailed discussion are followed by a chapter on miscellaneous howlers, e.g., the following. Solve $(x+3)(2-x) = 4$. Answer: Either $x + 3 = 4$ ∴ $x = 1$ or $2 - x = 4$ ∴ $x = -2$, correct. The book is most instructive for any mathematics teacher.

Hans Zassenhaus, California Institute of Technology

Some Aspects of Analysis and Probability, by Irving Kaplansky, Marshall Hall Jr., Edwin Hewitt and Robert Fortet. Surveys in Applied Mathematics IV. John Wiley and Sons, New York, 1958. 243 pages. $9.00.

This volume contains survey articles on four branches of mathematics, usually not considered as "applied"; "applicable" would be a more fitting term, although the subjects are treated not entirely from this point of view. Kaplansky's article on Functional Analysis (pp. 3-34, with a bibliography of 113 references) will be welcome as it gives an integrated account including the extensive work done in the modern Russian schools. The article on Combinatorial Analysis by M. Hall (pp. 37-104, with a bibliography of 59 references) deals with the classical

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problems (enumeration and choice) as well as the requirements of mathematical statistics, including finite projective geometries, incidence matrices etc. It may be noted that the article has been completed before the publication of Riordan's recent book on Combinatorial Analysis. Hewitt's "Abstract Harmonic Analysis" (pp. 107-168, with a bibliography of about 300 references) aims at a description of the present state of such parts of the theory which are not extensively treated in Loomis' work: the algebra of integrable functions on a locally compact group; the algebra of Radon measures on a locally compact or a compact group; the spaces L_p $(p > 1)$ on such groups, and a few sidelines. Finally R. Fortet "Recent Advances in Probability" (pp. 171-240, with a bibliography of 42 items) begins with a short chapter on Foundations (4 pp.). The titles of the following chapters are the following: sums of independent random variables; functionals of random functions; theorems of Kolmogorov - Smirnov; tests and estimations related to stochastic processes.

<div align="center">H. Schwerdtfeger, McGill University</div>

Group Theory and its Application to the Quantum Mechanics of Atomic Spectra, by Eugene P. Wigner, translated from the German by J.J. Griffin, Academic Press, New York and London, 1959. 372 pages. $8.80.

The greater part of this book is an English translation of Wigner's "Gruppentheorie und ihre Anwendung auf die Quantenmechanik der Atomspektren" published in 1931. Despite the advances made in quantum mechanics since the publication of that book, the subject matter is far from obsolete, and the translation will be welcomed by English-speaking mathematicians and physicists.

For mathematicians the book provides a lucid and rigorous account of the theory of representations of finite groups and of the three-dimensional orthogonal and unitary groups. This exposition alone will make the book a valuable addition to the library of a mathematician whether or not he is interested in quantum mechanics. For physicists concerned with the structure of the atom the book provides group-theoretic methods of establishing the rules of spectroscopy.

The English edition includes three chapters not in the original German. These deal with time inversion, coupling coefficients, and representation coefficients.

<div align="center">Louis Weisner, University of New Brunswick</div>

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