

opinion the text is not suitable for a college mathematics course. It is too elementary, important distinctions are not made, and nontrivial errors have been found. The reader is referred to the thoughtful review by G. Fuhrken in the *American Mathematical Monthly*, December 1969, p. 1160.

PHILIP OLIN,
MCGILL UNIVERSITY

Introduction to the Theory of Partially Ordered Spaces, by B. Z. Vulikh. xv + 387 pages. Translated by Leo F. Boron and edited by A. C. Zaanen and Kiyoshi Iseki. Noordhoff, Groningen, 1967. U.S. \$28.

This work, first published in Russian in 1961 under the Russian title *Vvedenie v teoriyu poluuporiadochennykh prostranstv*, gives a highly readable introduction to the subject as it stood shortly before that date. A number of the later references appear to have been added by the editors. In this regard there are numerous helpful remarks (added presumably by the editors) in square brackets throughout the text, which help to elucidate the material under discussion, and whenever possible English-language references are provided (within square brackets) instead of Russian ones.

The work is divided into thirteen chapters. The first three form an introduction to linear lattices culminating in the consideration of Riesz spaces. Ch. IV deals with various sorts of lattice-completeness. Ch. V concerns the representation of certain kinds of linear lattices with the aid of continuous functions on compacta. Here only the classical theory is considered. Ch. VI and VII deal with various kinds of topologies that can be imposed upon classes of linear lattices.

After laying this ground work, the author considers linear operators on Riesz spaces (Ch. VIII) finishing with an integral representation of linear operators.

Ch. IX deals with linear functionals, conjugate spaces, and the embedding of a Riesz space in its second conjugate space. Ch. X deals with extensions of linear operators, including a generalized Hahn–Banach Theorem. Ch. XI and XII consider the application of the results in the previous chapters to the theory of self-adjoint operators in Hilbert Space and the solution of functional equations by successive approximation. Finally Ch. XIII treats the more general topic of partially ordered normed spaces.

The book should be easily grasped by students who “know the basic material of real variables, topology, abstract algebra and functional analysis”—to quote the dust jacket.

I would recommend it to anyone so prepared.

BARRON BRAINERD,
UNIVERSITY OF TORONTO