<u>Principes et applications de l'analyse Booleenne,</u> by M. Carvallo.
Collection de Math. économiques, fasc. II. Gauthier Villars, Paris,
1965. xiii + 131 pages. Price: 30 F.

A compact booklet which, assuming a knowledge of lattice-theory,
develops Boolean algebra and applies it to the theory of networks.

H. A. Thurston, University of British Columbia

<u>A Vector Space Approach to Geometry,</u> by Melvin Hausner.
Prentice-Hall Inc., Englewood Cliffs, N. J., 1965. x + 397 pages.
$12.00.

Although the table of contents reads like that of a book on linear
algebra this book is not a linear algebra but, as the author insists, a
book on geometry. Its main purpose is to develop affine and Euclidean
geometry of 2-, 3- and n-dimensional space from the analytic point
of view. The basic algebraic tools are barycentric coordinates, vectors,
vector spaces, linear and affine transformations, matrices and deter-
minants. These algebraic topics are introduced and developed as needed,
their introduction being well motivated by the geometry. The book is
filled with interesting examples and analogies from other fields and there
is much to stimulate the students' interest. There is a very full and
excellent discussion of oriented areas in the plane and oriented volumes
in 3- and n-dimensional space. This discussion is used to motivate
the axiomatic definition of a determinant as a linear skew-symmetric
function of the column vectors of a square matrix. The book ends with
a chapter on groups and an exposition of Klein's Erlangen Program. At
this point one regrets that the author did not include a chapter on pro-
jective geometry. The book grew out of an in-service training course
for teachers and it seems well suited to this purpose. Its main use as
a textbook is likely to be in courses for prospective high school teachers
since it contains a large body of material in common with regular courses
in linear algebra.

D. C. Murdoch, University of British Columbia

<u>Theory of Retracts,</u> by Sze-Tsen Hu. Wayne State University
Press, Detroit, 1965. 234 pages. $13.50.

The notion of retracts was created by K. Borsuk in his thesis in
1931. The absolute neighbourhood retracts introduced by him in 1932
are a class of spaces which generalize polyhedra and retain many of
their desirable properties. The theory of retracts has since grown into
an extended and important branch of topology, and many of its concepts
are now included among the tools of every practising topologist. Most
of its results were so far only accessible in periodicals. S.-T. Hu sets
out to organise them for the first time in a reference book.

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