Complex Numbers and Conformal Mapping, by A. I. Markushevich. Russian Tracts on Advanced Mathematics and Physics, Vol. XI. Authorized English Edition, Hindustan Publishing Corp. (India) Delhi, 1961; Gordon and Breach Science Publishers, New York. 62 pages. $4.50.

In this elementary book real and complex numbers are introduced as vectors on a line and in a plane respectively. Accordingly addition and multiplication are defined geometrically. The second chapter "Conformal Mapping" analyzes primitive mappings like $z' = z + a$, $z' = cz$. There is also a discussion of the general idea of a conformal mapping. Chapter III gives an entirely untechnical discussion of cartographical mappings, applications of conformal mapping in aerodynamics (profiles), a nice picture of Zhukovsky "whom Lenin called, in all fairness, the 'Father of Russian Aviation'". On pp. 35-57 we find a detailed study of the mappings $z' = (z - a)(z - b)^{-1}$, $z' = z^2$, and the "Zhukovsky function" $z' = \frac{1}{2}(z + z^{-1})$. The book closes with 10 simple exercises with hints.

With regard to its intentions the book could be recommended to interested highschool students for whom the well-known author has probably written the Russian original. But the (unnamed) translator's mastery of the two languages concerned does not appear to be adequate for the translation of the little work. The exorbitant price will prevent it from having a wide circulation.

H. Schwerdtfeger, McGill University

Eléments de Mathématiques, Livre III, by N. Bourbaki. Topologie générale Part I, Chapters 1-4. Troisième edition Hermann, Paris, 1961. Actualités scientifiques et industrielles 1142 et 1143. 263 + 236 pages. 72 N. F.

The first two chapters of this third edition have been completely reset, mainly in order to bring the treatment in line with the ideas of morphisms of structures and universal mappings introduced in Chapter IV of Ensembles. The most significant additions: The introduction of quasi-compact spaces and projective limits and the more extensive treatment of open mappings, closed mapping and proper mappings (i.e. mappings whose cartesian products with any identical mapping are closed).

Chapters III and IV have been revised and enlarged. The theory of topological groups is made to lean more heavily on the idea of a group operating continuously in a topological space. Two new sections have been added. One dealing with groups which operate "properly" in a space, this being a generalization of the concept of "properly