There are a few minor misprints, but on the whole the book has been very well printed and proofread—this latter not always being the case today. The book is a valuable addition to the literature on line geometry, and a good translation into English makes it available to many more readers.

ALICE T. SCHAFER

Drei Perlen der Zahlentheorie. By A. J. Chintschin. Trans. from the 2d (1948) Russian ed. by W. v. Klemm. Berlin, Akademie-Verlag, 1951. 61 pp. 6.50 DM.

Three pearls of number theory. By A. Y. Khinchin. Trans. from the 2d (1948) Russian ed. by F. Bagemihl, H. Komm, and W. Seidel. Rochester, Graylock, 1952. 64 pp. $2.00.

The author, one of the leading Russian mathematicians, attempts to present three important recent results in such a way that they can be understood without much knowledge of number theory. He tries to create admirers of number theory by showing that elementary number theory is not yet a finished field since highly interesting new results were obtained by ingenious methods during the last few years, and further progress can be expected.

The author has been extremely successful in writing an excellent book for trained mathematicians. However, it is stated in the German edition that the book can be read by students of the upper grades of high schools and amateurs of mathematics and in the American edition that it can be understood by beginning college students. It is the reviewer's opinion that this is impossible. No such reader could study it with success. Even if he could understand some pages, he would not recognize the beauty of the results and their proofs.

The simplest part of the book is certainly the first chapter. The reviewer has proved its results in his classes at the University of Berlin and at the University of North Carolina, and he knows from this experience that it is not easy to present these theorems even to students who had taken a course in number theory.

In the first chapter the author proves the following theorem of van der Waerden published under the title *Beweis einer Baudetschen Vermutung*, Nieuw Archief voor Wiskunde (2) vol. 15 (1927) pp. 212–216. Let k and l be arbitrary integers. There exists a constant $W=W(k, l)$ such that for any distribution of the numbers $1, 2, \cdots, W$ into k classes at least one of the classes contains an arithmetic progression of l terms.