

for a property of the order-relation of a partially ordered set (rather than “anti-symmetric”) and the symbol $<$ is used for this (reflexive) relation. The term “radius of rotation” on p. 297 is more commonly known here as “radius of gyration”. In addition there are some infelicities such as the double meaning of \Rightarrow on p. 124 and the poor layout of the table at the foot of p. 116, as well as a rather large collection of misprints (Pascal triangle on p. 132, omission of the word *no* on p. 249, line 6, reference to p. 000 on p. 356 and others).

The problems for solution (with sketch solutions) are thought-provoking and more open-ended than is usual in a mathematical textbook, but are none the worse for that.

The translation is pleasant and Mrs Silvey is obviously at home with her material although her use of “landing-net” on p. 191 shows that she is no trout-fisher.

M. PETERSON

LEKKERKERKER, C. G., *Geometry of Numbers* (North-Holland Publishing Company, 1969), 510 pp, 210s.

This book gives a systematic account of the present state of knowledge in what might be called the classical field of the geometry of numbers. Analogues of the geometry of numbers in spaces over the field of complex numbers, non-archimedean fields or the ring of adèles are not considered. Some indication of the topics and results included is obtained from the following brief list of some of the chapter and section headings: convex bodies; star bodies; lattices; theorems of Minkowski, Blichfeldt, Rédei and Hlawka, Mordell-Siegel-Hlawka-Rogers, and Macbeath; successive minima of convex bodies and of non-convex sets; reduction theory; inhomogeneous minima; polar reciprocal convex bodies; critical lattices; packings and coverings; the functions $\Delta(S)$, $T(S)$, $f(\Lambda)$, $g(\Lambda)$; reduction of automorphic star bodies; density functions; homogeneous forms; sums of powers and products of linear forms; extreme forms; asymmetric and one-sided inequalities; diophantine approximation. There are $32\frac{1}{2}$ pages of bibliography containing an almost complete list of work published in the field during the period 1935-1965. This has been arranged to knit well with the famous 1935 *Ergebnisse* report of Koksma. For this enormous task alone the author deserves grateful thanks from all workers in the field and all others interested in this beautiful piece of mathematics.

The author has shown considerable skill in organisation of the work, in selection of results and in choice of proofs. He has throughout emphasised geometric rather than arithmetic and analytic ideas. His historical notes and remarks on related work by various authors are interesting and illuminating. One slight point of criticism might be that in certain places these explanatory paragraphs tend to break the thread of the main development. This could have been avoided by having these paragraphs in different type. However, the book is essentially a text for specialists and they will not object to the undoubtedly heavy task of going through the work in detail.

All concerned with the production of this attractive and much needed volume deserve congratulations.

J. HUNTER

VAN DER WAERDEN, B. L., *Mathematical Statistics* (George Allen & Unwin Ltd., 1969), xi + 367 pp., £7, 7s.

This is a translation into English of a book first published in German by Springer-Verlag in 1956. The translators are to be congratulated on the excellence of their work, since there is little if any indication that the book was not written originally in English.