and ϕ), the point $z=\sum_{i=1}^{g}\phi(M_i)$ is generic on J with respect to K. The Jacobian varieties furnish concrete examples of abelian varieties of a given dimension and give a link between abelian varieties and curves.

But the more important link is furnished by the application of abelian varieties to the theory of correspondence of curves. In fact, there exists an isomorphism between the module of classes of correspondences between Γ and Γ' and the module of homomorphisms of J into J'. In the case $\Gamma=\Gamma'$ this isomorphism is one between the ring of classes of correspondences on Γ and the ring of endomorphisms of J. Thus the study of endomorphisms of an abelian variety is a generalization of the theory of correspondences of a curve.

The above gives perhaps a broad outline of some results of this book in relation to the classical theory. The author has not only generalized the classical theory into a more profound new theory, with new results, but has presented the results in such a way that the development seems most natural. Among other things the book gives ample justification of the struggle one has to go through in reading the *Foundations* of the author.

SHIING-SHEN CHERN

Lattice theory. By G. Birkhoff. (American Mathematical Society Colloquium Publications, vol. 25.) Rev. ed. New York, American Mathematical Society, 1949. 14+280 pp. $6.00.

In the preface to the first edition of *Lattice theory*, Professor Birkhoff remarked that one of the attractive features in writing such a book was "fitting into a single pattern ideas developed independently by mathematicians with diverse interests." Thus the first edition contained a quite exhaustive account of those topics in mathematics which make extensive use of lattice operations. The same philosophy prevails in the new edition though it is a complete revision of the original. Due to the large number of contributions to the subject in the intervening years, the new volume is nearly twice the size of the old, and yet many important topics are barely mentioned.

The general plan of the book is unchanged. Beginning with partially ordered sets (Birkhoff now uses the term "partly ordered set," though he was not completely successful in changing every "partially" into "partly"), the author treats successively more special systems concluding with chapters on lattice-ordered groups and vector lattices. This method of presentation has the advantage that results for particular lattices often follow as natural specializations of results