

Hopf, and Alexandrov in connection with the later development of the subject. In Chapter I the notion of a simplicial complex is introduced, and the homology groups of a finite simplicial complex are defined, using an arbitrary abelian group for coefficients. In Chapter II, it is proved that the homology groups are topological invariants, i.e. independent of the choice of a simplicial decomposition. The proof of invariance involves the use of simplicial mappings, the simplicial approximation theorem, and invariance under barycentric subdivision. In Chapter III, homology theory is applied to the study of continuous mappings and fixed points. It is proved that the homomorphism induced by a continuous map is invariant under homotopies. It is also proved that if the "Lefschetz number" of a mapping of a polyhedron into itself does not vanish, then the mapping has a fixed point.

There are a couple of results included which are digressions from the main line of development. In Chapter I it is proved that any n -dimensional compact metric space can be imbedded in Euclidean $(2n+1)$ -space, and in Chapter II Sperner's Lemma is proved, and then used to demonstrate that the topological dimension of an n -simplex is actually n , and the Brouwer fixed point theorem.

Several topics which other authors might consider important are completely omitted from this small book. Examples of such topics are homology theory for general spaces (e.g., the singular or Čech homology theory), relative homology groups, cohomology theory, products, and duality theorems.

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Bessel functions. Part II. Functions of positive integer order. Ed. by W. G. Bickley, L. J. Comrie, J. C. P. Miller, D. H. Sadler, and A. J. Thompson. (British Association for the Advancement of Science, Mathematical Tables, vol. 10.) Cambridge University Press, 1952. 40+255 pp. \$11.00.

This is the tenth and final volume of the *British Association Mathematical Tables*. The Mathematical Tables Committee of the "B.A." has a long and honorable history; a brief account is included in the final report which has been reprinted in *Mathematical Tables and Other Aids to Computation* vol. 3 (1949) pp. 333-340. For many years this Committee represented probably the only organized effort to plan and compute in a systematic manner mathematical tables, and its work entailed cooperation between professional computers, mathematicians, and amateurs, between paid and voluntary workers. That this intricate system worked at all might be thought a minor