Singer. The Hoffman-Singer theory of maximal algebras and the Helson-Lowdenslager work on invariant subspaces and cocylces is made available for the first time in book form. Also included are extensions of the works of these authors due to deLeeuw and Glicksberg and Gamelin.

This review would be incomplete without a few words on the merits of these books as textbooks. Browder's book seems ideal for a one-semester course for students who already know some function theory and basic Banach space theory. Because of the more detailed treatment, the student may find it easier to read Browder. The first two chapters of Gamelin can be also used as material for an introductory course. The later chapters offer a magnificent selection of topics that can be offered in specialized courses. Browder's book does not offer any exercises. It also lacks a terminological index. Gamelin's book contains exercises of varying degrees of complexity. Some of the problems are actually theorems from recent papers. In such cases the author purposely omits the references. The reviewer feels that it would have been nicer to give references to some of the more difficult exercises.

M. RABINDRANATHAN

Mordell, Diophantine equations, by L. J. Mordell, Academic Press, New York and London, 1969.

The theory of diophantine equations is one of the oldest in mathematics, one of its most attractive, and also at the moment one which is still fairly undeveloped as being exceptionally hard. One reason for this is perhaps that in the full generality of the Hilbert problem, it cannot be effectively dealt with. Nevertheless, I personally would expect a wide class of diophantine problems to be effectively solvable (e.g. those on curves or abelian varieties), and in any case, many special cases are solvable.

Because of difficulties which have been encountered historically, a portion of the subject has developed as an accumulation of special diophantine equations, mostly in two variables, i.e. curves. It was well understood in the nineteenth century that nonsingular cubic curves have a group law on them, parametrized by the elliptic functions from a complex torus, but Poincaré was the first to draw attention to the special group of rational points when this curve is defined by an equation with rational coefficients, and he guessed that this group might be finitely generated. Mordell proved this fact in 1922, and thereby provided the first opportunity to behold the beginnings of a much broader approach to this type of equation. He