over algebraic number fields. The author chose **Q**. This has its pros and it has its cons. On the positive side, it enables the approach to be more elementary, the proofs are more concrete, there is no need to use results from class field theory which is difficult enough to understand let alone to develop, and it makes the material more accessible to mathematicians in other areas–group theory, combinatorics, topology, differential geometry–who in the past have found **Z** and **Q** good enough for their purposes. On the negative side it must be said that these same mathematicians are beginning to find **Z** and **Q** too specialized, that it is not as simple as the author suggests to extend things from **Q** to algebraic number fields, and that the reader who has mastered the subject over **Q** will be faced with a psychological barrier in having to go over it all again over an algebraic number field. My advice to the novice who intends to work in quadratic forms is, in fact, to start out over number fields.

So much for overall philosophy. Some other points should also be mentioned. Cassels emphasizes the effectiveness of the results whenever he can. This is a welcome feature of the book although, on one occasion, I found his explanation inadequate and unconvincing. Next, at the very end of the book he shows how the use of Dirichlet's theorem can be replaced by some elementary, but nontrivial, theory. He also shows that the folklore on the equivalence between the geometric and the form approach to spinor genera is true, a service to the expert, but incomplete and confusing to others. The author's development of Minkowski reduction and composition theory is clearly done and to be recommeded. My overall disappointments include a certain vagueness that is all too often covered by a wave of the hand, and an incompleteness that leaves you with the feeling that you have not been brought to the frontiers of research. Whether or not the decision to work over **Q** is a disappointment will depend on what you intend to use the book for.

The audience for *Rational quadratic forms* will be those mathematicians who wish to apply the arithmetic theory of quadratic forms and either want to learn the subject or have a good reference source for theorems over **Z**; students who wish to work in the theory; and specialists who are interested in seeing the subject from a somewhat different perspective. The ultimate questions are whether to buy the book; and, having bought it, whether to read it; and, in reading it, whether one will enjoy it. My answer to the first of these questions is yes; to the second, yes if you are just interested in **Z** or if you are looking for a different perspective; my answer to the third question is that I did.

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Compact right topological semigroups and generalizations of almost periodicity, by J. F. Berglund, H. D. Junghenn and P. Milnes, Lecture Notes in Math., vol. 663, Springer-Verlag, Berlin-Heidelberg-New York, 1978, x + 243 pp., $12.00.

This monograph in lecture-notes' clothing (hereafter referred to as BJM) has something in it for everyone: Semigroups S and the backchat between