<<数论>>

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内容概要

In spite of the fact that nowadays there are quite a few books on algebraic number theory available to the mathematical community, there seems to be still a strong need for a fundamental work like IIasse's ,,Zahlentheorie". This impression is corroborated by the great number of inquiries the editor received about the date of appearance of the English translation of Hasse's book. One main reason for the unbroken interest in this book lies probably in its vivid presentation of the divisortheoretic approach to algebraic number theory, an approach which was developed by Hasse's former teacher IIensel and further expanded by Hasse himseff. Hasse does not content himself with a mere presentation of the number-theoretic material, but he motivates the basic ideas and questions, comments on them in detail,and points out their connections with neighboring branches of mathematics.

作者简介

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章节摘录

In this part of the book, we shall treat the arithmetic properties of the rational num-bers. These are properties in which the rational integers play a predominant role. There is a point of view in number theory according to which one is primarilyinterested in questions about the number of integers with specified properties.For example, there ist the question of the number of primes or the number ofintegers x of a specified algebraic form as a function of x. In the present book,the point of view that we shall take from the outset is quite different. We shallbe interested in the rational numbers as a set of elements on which we can carryout the basic operations of addition, subtraction, multiplication, and division,that is to say, in the field P of rational numbers, and likewise in the integers asa subset of this field that is closed with respect to the first three of the basic ope-rations mentioned, that is to say, in the integral subdomain of rationalintegers, of which P is the quotient field.Our attention will be directed primarily to the question of the structure ofthese sets and to the description of this structure by its natural invariants （justas in pure geometry we seek to describe the structure of an object in terms ofthe inner invariants peculiar to it and not in terms of arbitrarily chosen externalcoordinates）.

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