

<<数论基础>>

图书基本信息

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内容概要

This book is intended to complement my Elements of Algebra , and it is similarly motivated by the problem of solving polynomial equations. However , it is independent of the algebra book , and probably easier.

In Elements of Algebra we sought solution by radicals , and this led to the concepts of fields and groups and their fusion in the celebrated theory of Galois. In the present book we seek integer solutions , and this leads to the concepts of rings and ideals which merge in the equally celebrated theory of ideals due to Kummer and Dedekind. The book is based on two short courses (about 20 lectures each) given at Monash University in recent years; one on elementary number theory and one on ring theory with applications to algebraic number theory. Thus the amount of material is suitable for a one-semester course , with some variation possible through omission of the optional starred sections. A slower~paced course could stop at the end of Chapter 9 , at which point most of the standard results have been covered , from Euclid's theorem that there are infinitely many primes to quadratic reciprocity.

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