Universitext

UTX

Marc Hindry

Arithmetics

✷ Springer

Springer

1st edition

2011, XVIII, 322 p. 5 illus.

Printed book
Softcover

Printed book
Softcover
ISBN 978-1-4471-2130-5
£ 54,99 | CHF 77,00 | 64,99 € |
71,49 € (A) | 69,54 € (D)

Available

Discount group
Standard (0)

Product category
Graduate/advanced undergraduate textbook

Series
Universitext

Mathematics : Number Theory

Hindry, Marc, Université Paris 7 Denis Diderot Institut de Mathématiques de Jussieu, Paris, France

Arithmetics

- Explores the multi-faceted nature of number theory, spanning several areas of research in one text
- Begins at undergraduate level and takes the reader through to graduate level
- Includes recent proofs, such as the polynomial primality algorithm

Number theory is a branch of mathematics which draws its vitality from a rich historical background. It is also traditionally nourished through interactions with other areas of research, such as algebra, algebraic geometry, topology, complex analysis and harmonic analysis. More recently, it has made a spectacular appearance in the field of theoretical computer science and in questions of communication, cryptography and error-correcting codes. Providing an elementary introduction to the central topics in number theory, this book spans multiple areas of research. The first part corresponds to an advanced undergraduate course. All of the statements given in this part are of course accompanied by their proofs, with perhaps the exception of some results appearing at the end of the chapters. A copious list of exercises, of varying difficulty, are also included here. The second part is of a higher level and is relevant for the first year of graduate school. It contains an introduction to elliptic curves and a chapter entitled "Developments and Open Problems", which introduces and brings together various themes oriented toward ongoing mathematical research. Given the multifaceted nature of number theory, the primary aims of this book are to: - provide an overview of the various forms of mathematics useful for studying numbers - demonstrate the necessity of deep and classical themes such as Gauss sums - highlight the role that arithmetic plays in modern applied mathematics - include recent proofs such as the polynomial primality algorithm - approach subjects of contemporary research such as elliptic curves - illustrate the beauty of arithmetic The prerequisites for this text are undergraduate level algebra and a little topology of Rn. It will be of use to undergraduates, graduates and phd students, and may also appeal to professional mathematicians as a reference text.

Order online at springer.com/booksellers
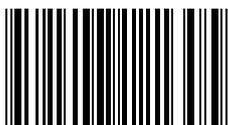**Springer Nature Customer Service Center GmbH**
Customer Service
Tiergartenstrasse 15-17
69121 Heidelberg
Germany
T: +49 (0)6221 345-4301
row-booksellers@springernature.com

Part of **SPRINGER NATURE**