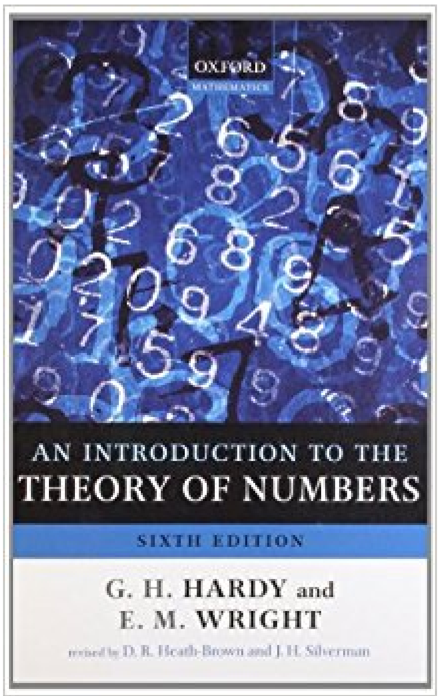
An Introduction To The Theory Of Numbers



Synopsis

An Introduction to the Theory of Numbers by G. H. Hardy and E. M. Wright is found on the reading list of virtually all elementary number theory courses and is widely regarded as the primary and classic text in elementary number theory. Developed under the guidance of D. R. Heath-Brown, this Sixth Edition of An Introduction to the Theory of Numbers has been extensively revised and updated to guide today's students through the key milestones and developments in number theory.Updates include a chapter by J. H. Silverman on one of the most important developments in number theory - modular elliptic curves and their role in the proof of Fermat's Last Theorem -- a foreword by A. Wiles, and comprehensively updated end-of-chapter notes detailing the key developments in number theory. Suggestions for further reading are also included for the more avid reader.The text retains the style and clarity of previous editions making it highly suitable for undergraduates in mathematics from the first year upwards as well as an essential reference for all number theorists.

Book Information

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Customer Reviews

`Review from previous edition Mathematicians of all kinds will find the book pleasant and stimulating reading, and even experts on the theory of numbers will find that the authors have something new to say on many of the topics they have selected... Each chapter is a model of clear exposition,and the notes at the ends of the chapters, with the references and suggestions for further reading, are invaluable.'Nature`This fascinating book... gives a full, vivid and exciting account of its subject, as far as this can be done without using too much advanced theory.'Mathematical Gazette`...an important reference work... which is certain to continue its long and successful life...'Mathematical

Reviews`...remains invaluable as a first course on the subject, and as a source of food for thought for anyone wishing to strike out on his own.’Matyc Journal

Roger Heath-Brown F.R.S. was born in 1952, and is currently Professor of Pure Mathematics at Oxford University. He works in analytic number theory, and in particular on its applications to prime numbers and to Diophantine equations.

It’s give the reader a great understanding of number theory. By far one of best out there on the market and great book for reference on the topic. For my number theory class; I use this book more than the assigned book. It give much better examples and explain the subject very well, and does it in a more depth than any other number theory book.

This book is so amazing. It was written by a world class pure mathematician who also wrote "A Course in Pure Mathematics". It is fun to read and covers a lot with no useless information. In my opinion if you love pure mathematics this book is a great introduction.

This book continues to be a true gem. The updating through the various editions is much appreciated. I would recommend it to anyone who loves numbers.

This book provides a gentle presentation to many subfields of number theory: including analytic, algebraic, and elementary. It discusses generating functions in everyday language. The book’s section on the zeta function is incredible. I would recommend this gem to anyone who taken calculus.

This book can be appreciated by anyone who has taken at least a serious first year calculus course. If you are familiar say with notions like uniform convergence and the Riemann integral (and can actually evaluate an integral from first principles rather than using the fundamental theorem of calculus), you are probably at a level where you can use this book. It is essential to be comfortable with induction and arguments that go like "Suppose that k is the biggest integer satisfying some property, then get a contradiction". Probably also high school students who have done Olympiad training would enjoy parts of it.Each chapter stands mostly by itself, so for example one doesn’t need to have read the earlier chapters to understand the chapters on generating functions and orders of magnitude of arithmetical functions and on the partition function, which were the first chapters I first as an undergraduate. The chapters on continued fractions and Diophantine approximation are good, and also don’t depend on other parts of the book. I have that feeling that continued fractions are generally seen as (i) a curiosity, (ii) an odd tool to prove counterexamples in analysis (like the Cantor set), or (iii) as a specialized area, that perhaps descriptive set theorists or people working in transcendental number theory care about. In fact, continued fractions ought to be a part of the analyst’s arsenal: they are the most natural way of representing real numbers by sequences of integers, and appear often in measure theory, especially when trying to construct explicit examples, like Lusin’s set that is not Borel measurable (but which is Lebesgue measurable). Several proofs of Kronecker’s theorem are given, which is a result that is probably more important in dynamical systems than it is in number theory by itself. There is a chapter on the geometry of numbers in which Minkowski’s theorem, about symmetric convex sets of great enough volume containing lattice points, is proved. This book is probably the best place to read Selberg’s proof of the prime number theorem. After praising the book, let me say that I have never been attracted to the chapters on quadratic fields, and of the whole book I think these are the most dated, and one might better use the sections in Dummit and FooteÃ Â Abstract Algebra, 3rd EditionÃ Â or for a serious presentation, Swinnerton-DyerÃ Â A Brief Guide to Algebraic Number Theory (London Mathematical Society Student Texts), or for a marvellous book just on quadratic fields that connects quadratic fields to Gauss’s work on quadratic forms and later work on modular forms, CoxÃ Â Primes of the Form x2+ny2: Fermat, Class Field Theory, and Complex Multiplication.I recommend this book for any mathematically trained reader. It doesn’t have to be read cover to cover, and you will enjoy opening it for years. It is too broad to be used for a course and has no exercises, but for the independent reader, I recommend reading the chapter you choose from start to finish. If the chapter refers to statements proved in earlier chapters, you should carefully read the statement that is being used, understand what it says, but don’t spend a minute trying to prove it, because that might send you even farther back checking other statements. You should carefully read all the proofs in the chapter and all the examples and make sure you understand every step, not just agree that it seems like a thing that could be correct but that you are sure why it is true. There may be parts that don’t make sense, and if you don’t have any help then try reading another chapter and coming back later.This book is an example of how much good math can be explained without on the one hand demanding any prior machinery and without on the other hand describing math rather than doing math (like how every educated person has heard about SchrÃƒÂ¶dinger’s cat, and the shallow things they have heard probably leave them knowing less than if they had heard nothing at all, yet like food that is not nutritious, these shallow explanations fill the stomach and let you think you know something), and the closest comparison I can think of is Hilbert and Cohn-VossenÃ Â Geometry and the Imagination (AMS Chelsea Publishing).

A classic, but I wish it were written in American English. Sometimes feels a little dry compared to the text by Dudley Underwood. Author gives little historical context. A few practice problems would have been nice.

I am an undergrad student in computer engineering. I bought this book after I looked at the table of contents and found some topics which I interested in. This is by far the best book on number theory I ever came across. It is very readable, fairly free of errors (the ones that are there are easy to spot and do not cause confusion). In comparison to another number theory book I read before. This one has the charm of making previously confusing concept clear. Different proofs are often given on major theorems. I do not really have a good way to describe it, but this book really "flows". The logic is clear and easy to follow. If I read this one to start with, it would save me a lot of time and I would have a much better understanding of the subject by now. I know, this review is totally uninformative, you have to see it for yourself to be sure, but I totally recommend this one.The only downside is the price dropped by like 20$ since I bought it.

Don’t expect a systematic treatise : Hardy guides you into the vast and intricate number theory via side tracks, leaving a few gaps to be filled in... Which allows him to cover an enormous range of topics, in his usual clear and concise style.In my opinion, this book should be read after Gauss’s masterpiece "Disquisitiones Arithmeticae" and before Apostol’s "Introduction to Analytical Number Theory".

Sacred Science of Numbers: A Series of Lecture Lessons Dealing with the Sacred Science of Numbers The Grapes of Math: How Life Reflects Numbers and Numbers Reflect Life Numbers Raging (Numbers Game Saga Book 3) Numbers Ignite (Numbers Game Saga Book 2) The Whole Truth About Whole Numbers: An Elementary Introduction to Number Theory An Introduction to the Theory of Numbers Introduction to the Theory of Numbers Music Theory: From Beginner to Expert - The Ultimate Step-By-Step Guide to Understanding and Learning Music Theory Effortlessly (Music Theory Mastery Book 1) Recursion Theory, Godel’s Theorems, Set Theory, Model Theory (Mathematical Logic: A Course With Exercises, Part II) The Crime Numbers Game: Management by Manipulation (Advances in Police Theory and Practice) An Illustrated Theory of Numbers

Elementary Theory of Numbers (Dover Books on Mathematics) Contributions to the Founding of the Theory of Transfinite Numbers (Dover Books on Mathematics) Contributions to the Founding of the Theory of Transfinite Numbers Introduction to Non-Abelian Class Field Theory, An: Automorphic Forms of Weight 1 and 2-Dimensional Galois Representations (Series on Number Theory and Its Applications) An Introduction to Mathematical Reasoning: Numbers, Sets and Functions Immaterialism: Objects and Social Theory (Theory Redux) Making Design Theory (Design Thinking, Design Theory) Mastering the Ukulele: Ukulele Techniques and Theory for Beginners (Ukulele Theory, Ukulele Songbook Book 1) Garage Band Theory Ã¢â ¬â œ GBTool 17 Triad Inversions for Guitar, Mandolin and Banjo: Music theory for non music majors, livingroom pickers * working musicians ... Tools the Pro's Use to Play by Ear Book 18)