



Combinatorics: A Guided Tour (MAA Textbooks)

By David R. Mazur

Download now

Read Online 

Combinatorics: A Guided Tour (MAA Textbooks) By David R. Mazur

Combinatorics is mathematics of enumeration, existence, construction, and optimization questions concerning finite sets. This text focuses on the first three types of questions and covers basic counting and existence principles, distributions, generating functions, recurrence relations, P - A theory, combinatorial designs, error correcting codes, partially ordered sets, and selected applications to graph theory including the enumeration of trees, the chromatic polynomial, and introductory Ramsey theory. The only prerequisites are single-variable calculus and familiarity with sets and basic proof techniques.

The text emphasizes the brands of thinking that are characteristic of combinatorics: bijective and combinatorial proofs, recursive analysis, and counting problem classification. It is flexible enough to be used for undergraduate courses in combinatorics, second courses in discrete mathematics, introductory graduate courses in applied mathematics programs, as well as for independent study or reading courses.

What makes this text a guided tour are the approximately 350 reading questions spread throughout its eight chapters. These questions provide checkpoints for learning and prepare the reader for the end-of-section exercises of which there are over 470. Most sections conclude with Travel Notes that add color to the material of the section via anecdotes, open problems, suggestions for further reading, and biographical information about mathematicians involved in the discoveries.

 [Download Combinatorics: A Guided Tour \(MAA Textbooks\) ...pdf](#)

 [Read Online Combinatorics: A Guided Tour \(MAA Textbooks\) ...pdf](#)

Combinatorics: A Guided Tour (MAA Textbooks)

By David R. Mazur

Combinatorics: A Guided Tour (MAA Textbooks) By David R. Mazur

Combinatorics is mathematics of enumeration, existence, construction, and optimization questions concerning finite sets. This text focuses on the first three types of questions and covers basic counting and existence principles, distributions, generating functions, recurrence relations, Pólya theory, combinatorial designs, error correcting codes, partially ordered sets, and selected applications to graph theory including the enumeration of trees, the chromatic polynomial, and introductory Ramsey theory. The only prerequisites are single-variable calculus and familiarity with sets and basic proof techniques.

The text emphasizes the brands of thinking that are characteristic of combinatorics: bijective and combinatorial proofs, recursive analysis, and counting problem classification. It is flexible enough to be used for undergraduate courses in combinatorics, second courses in discrete mathematics, introductory graduate courses in applied mathematics programs, as well as for independent study or reading courses.

What makes this text a guided tour are the approximately 350 reading questions spread throughout its eight chapters. These questions provide checkpoints for learning and prepare the reader for the end-of-section exercises of which there are over 470. Most sections conclude with Travel Notes that add color to the material of the section via anecdotes, open problems, suggestions for further reading, and biographical information about mathematicians involved in the discoveries.

Combinatorics: A Guided Tour (MAA Textbooks) By David R. Mazur Bibliography

- Sales Rank: #1131915 in Books
- Brand: Brand: Mathematical Association of America
- Published on: 2009-11-18
- Original language: English
- Number of items: 1
- Dimensions: 10.00" h x 1.02" w x 7.01" l, 1.95 pounds
- Binding: Hardcover
- 391 pages

 [Download Combinatorics: A Guided Tour \(MAA Textbooks\) ...pdf](#)

 [Read Online Combinatorics: A Guided Tour \(MAA Textbooks\) ...pdf](#)

Download and Read Free Online *Combinatorics: A Guided Tour* (MAA Textbooks) By David R. Mazur

Editorial Review

Review

This is a well-written, reader-friendly, and self-contained undergraduate course on combinatorics, focusing on enumeration. The book includes plenty of exercises, and about half of them come with hints. --M. Bona, Choice Magazine

...Combinatorics is an excellent candidate for a special topics course for mathematics majors; with the broad spectrum of applications that course can simultaneously be an advanced and a capstone course. This book would be an excellent selection for the textbook of such a course. The explanations are at an appropriate level for the audience and there are exercises at the end of each section...The coverage is also sufficient of breadth; all of the major areas of combinatorics are covered...This book is the best candidate for a textbook in combinatorics that I have encountered. --Charles Ashbacher

I have reviewed many books on discrete mathematics over the years; some have been quite good...However, the book reviewed here, *Combinatorics: A Guided Tour* by David R. Mazur (hereafter CAGT) is the best book ever written on undergraduate combinatorial theory--it deserves an award. I like everything about this book, starting with the selection of topics and the organization.

...The delineation of the topics is first rate--better than I have ever seen in any other book. Their presentation is generally thorough, with much of it in the form of worked problems. The book is very much designed as a textbook; there are plenty of problems at the end of each section. ... CAGT has both good breadth and great presentation; it is in fact a new standard in presentation for combinatorics, essential as a resource for any instructor, including those teaching out of a different text. For the student: If you are just starting to build a library in combinatorics, this should be your first book. --The UMAP Journal

About the Author

David Mazur is Associate Professor of Mathematics at Western New England College in Springfield, Massachusetts. He received his undergraduate degree in mathematics from the University of Delaware in 1993. He then began graduate study at The Johns Hopkins University where he earned a Master's in 1996 and a Ph.D. in 1999, focusing on operations research, integer programming, and polyhedral combinatorics. He was a 2000-2001 Project NExT fellow and continues to be active in the Mathematical Association of America.

Users Review

From reader reviews:

Raul Warren:

Typically the book *Combinatorics: A Guided Tour* (MAA Textbooks) has a lot of knowledge on it. So when you check out this book you can get a lot of help. The book was authored by the very famous author. This author makes some research previous to write this book. This book very easy to read you can get the point easily after reading this article book.

John Collins:

Combinatorics: A Guided Tour (MAA Textbooks) can be one of your nice books that are good idea. All of us recommend that straight away because this e-book has good vocabulary that can increase your knowledge in terminology, easy to understand, bit entertaining but still delivering the information. The author giving his/her effort to get every word into pleasure arrangement in writing Combinatorics: A Guided Tour (MAA Textbooks) but doesn't forget the main level, giving the reader the hottest and based confirm resource details that maybe you can be among it. This great information may drawn you into fresh stage of crucial contemplating.

Erika Yoon:

Are you kind of busy person, only have 10 or 15 minute in your day time to upgrading your mind ability or thinking skill perhaps analytical thinking? Then you are having problem with the book than can satisfy your short space of time to read it because all of this time you only find publication that need more time to be learn. Combinatorics: A Guided Tour (MAA Textbooks) can be your answer because it can be read by a person who have those short spare time problems.

Benjamin Herrera:

As we know that book is essential thing to add our knowledge for everything. By a publication we can know everything we wish. A book is a pair of written, printed, illustrated or even blank sheet. Every year ended up being exactly added. This guide Combinatorics: A Guided Tour (MAA Textbooks) was filled with regards to science. Spend your extra time to add your knowledge about your science competence. Some people has different feel when they reading a book. If you know how big benefit of a book, you can experience enjoy to read a publication. In the modern era like currently, many ways to get book that you wanted.

Download and Read Online Combinatorics: A Guided Tour (MAA Textbooks) By David R. Mazur #7K39UZN12WR

Read Combinatorics: A Guided Tour (MAA Textbooks) By David R. Mazur for online ebook

Combinatorics: A Guided Tour (MAA Textbooks) By David R. Mazur Free PDF d0wnl0ad, audio books, books to read, good books to read, cheap books, good books, online books, books online, book reviews epub, read books online, books to read online, online library, greatbooks to read, PDF best books to read, top books to read Combinatorics: A Guided Tour (MAA Textbooks) By David R. Mazur books to read online.

Online Combinatorics: A Guided Tour (MAA Textbooks) By David R. Mazur ebook PDF download

Combinatorics: A Guided Tour (MAA Textbooks) By David R. Mazur Doc

Combinatorics: A Guided Tour (MAA Textbooks) By David R. Mazur Mobipocket

Combinatorics: A Guided Tour (MAA Textbooks) By David R. Mazur EPub

7K39UZN12WR: Combinatorics: A Guided Tour (MAA Textbooks) By David R. Mazur