A Transition to Advanced Mathematics: A Survey Course

By William Johnston, Alex McAllister

A Transition to Advanced Mathematics: A Survey Course By William Johnston, Alex McAllister

A *Transition to Advanced Mathematics: A Survey Course* promotes the goals of a "bridge" course in mathematics, helping to lead students from courses in the calculus sequence (and other courses where they solve problems that involve mathematical calculations) to theoretical upper-level mathematics courses (where they will have to prove theorems and grapple with mathematical abstractions). The text simultaneously promotes the goals of a ``survey'' course, describing the intriguing questions and insights fundamental to many diverse areas of mathematics, including Logic, Abstract Algebra, Number Theory, Real Analysis, Statistics, Graph Theory, and Complex Analysis.

The main objective is "to bring about a deep change in the mathematical character of students -- how they think and their fundamental perspectives on the world of mathematics." This text promotes three major mathematical traits in a meaningful, transformative way: to develop an ability to communicate with precise language, to use mathematically sound reasoning, and to ask probing questions about mathematics. In short, we hope that working through *A Transition to Advanced Mathematics* encourages students to become mathematicians in the fullest sense of the word.

A Transition to Advanced Mathematics has a number of distinctive features that enable this transformational experience. Embedded Questions and Reading Questions illustrate and explain fundamental concepts, allowing students to test their understanding of ideas independent of the exercise sets. The text has extensive, diverse Exercises Sets; with an average of 70 exercises at the end of section, as well as almost 3,000 distinct exercises. In addition, every chapter includes a section that explores an application of the theoretical ideas being studied. We have also interwoven embedded reflections on the history, culture, and philosophy of mathematics throughout the text.

A Transition to Advanced Mathematics: A Survey Course

By William Johnston, Alex McAllister

A Transition to Advanced Mathematics: A Survey Course By William Johnston, Alex McAllister

A *Transition to Advanced Mathematics: A Survey Course* promotes the goals of a "bridge" course in mathematics, helping to lead students from courses in the calculus sequence (and other courses where they solve problems that involve mathematical calculations) to theoretical upper-level mathematics courses (where they will have to prove theorems and grapple with mathematical abstractions). The text simultaneously promotes the goals of a ``survey'' course, describing the intriguing questions and insights fundamental to many diverse areas of mathematics, including Logic, Abstract Algebra, Number Theory, Real Analysis, Statistics, Graph Theory, and Complex Analysis.

The main objective is "to bring about a deep change in the mathematical character of students -- how they think and their fundamental perspectives on the world of mathematics." This text promotes three major mathematical traits in a meaningful, transformative way: to develop an ability to communicate with precise language, to use mathematically sound reasoning, and to ask probing questions about mathematics. In short, we hope that working through *A Transition to Advanced Mathematics* encourages students to become mathematicians in the fullest sense of the word.

A Transition to Advanced Mathematics has a number of distinctive features that enable this transformational experience. Embedded Questions and Reading Questions illustrate and explain fundamental concepts, allowing students to test their understanding of ideas independent of the exercise sets. The text has extensive, diverse Exercises Sets; with an average of 70 exercises at the end of section, as well as almost 3,000 distinct exercises. In addition, every chapter includes a section that explores an application of the theoretical ideas being studied. We have also interwoven embedded reflections on the history, culture, and philosophy of mathematics throughout the text.

A Transition to Advanced Mathematics: A Survey Course By William Johnston, Alex McAllister Bibliography

- Sales Rank: #920608 in Books
- Published on: 2009-07-27
- Original language: English
- Number of items: 1
- Dimensions: 7.10" h x 1.50" w x 10.10" l, 3.20 pounds
- Binding: Hardcover
- 768 pages

⬇ **Download** A Transition to Advanced Mathematics: A Survey Cou ...pdf

▤ **Read Online** A Transition to Advanced Mathematics: A Survey C ...pdf

Download and Read Free Online A Transition to Advanced Mathematics: A Survey Course By William Johnston, Alex McAllister

Editorial Review

Review

"A readable, comprehensive resource for transitioning to higher mathematical thinking. A valuable feature is the different types of questions and exercises. Professors will benefit from each chapter's optional application section, offering flexibility for teaching purposes."--*Choice*

About the Author

William Johnston is Professor of Mathematics at Butler University. He has been teaching mathematics to undergraduates since 1983.

Books by the Same Author:
An Introduction to Statistical Inference
Alex M. McAllister is an Associate Professor of Mathematics at Centre College. Over the past fifteen years, Alex has taught mathematics to undergraduates at the University of Notre Dame, Dartmouth College, and Centre College.

Users Review

From reader reviews:

Erich Arnold:

The book A Transition to Advanced Mathematics: A Survey Course make you feel enjoy for your spare time. You need to use to make your capable much more increase. Book can to become your best friend when you getting strain or having big problem with the subject. If you can make examining a book A Transition to Advanced Mathematics: A Survey Course for being your habit, you can get a lot more advantages, like add your personal capable, increase your knowledge about a number of or all subjects. You are able to know everything if you like wide open and read a e-book A Transition to Advanced Mathematics: A Survey Course. Kinds of book are several. It means that, science e-book or encyclopedia or other folks. So , how do you think about this guide?

William Walker:

The book A Transition to Advanced Mathematics: A Survey Course will bring you to definitely the new experience of reading the book. The author style to elucidate the idea is very unique. In case you try to find new book to read, this book very suited to you. The book A Transition to Advanced Mathematics: A Survey Course is much recommended to you to read. You can also get the e-book through the official web site, so you can more readily to read the book.

Joyce Greenberg:

People live in this new time of lifestyle always attempt to and must have the spare time or they will get wide range of stress from both day to day life and work. So , once we ask do people have free time, we will say absolutely indeed. People is human not just a robot. Then we inquire again, what kind of activity do you have when the spare time coming to an individual of course your answer will unlimited right. Then do you try this one, reading guides. It can be your alternative within spending your spare time, the actual book you have read is usually A Transition to Advanced Mathematics: A Survey Course.

Anita Cannon:

This A Transition to Advanced Mathematics: A Survey Course is brand new way for you who has attention to look for some information as it relief your hunger associated with. Getting deeper you onto it getting knowledge more you know or else you who still having tiny amount of digest in reading this A Transition to Advanced Mathematics: A Survey Course can be the light food for you personally because the information inside this specific book is easy to get through anyone. These books build itself in the form which can be reachable by anyone, yep I mean in the e-book application form. People who think that in e-book form make them feel tired even dizzy this guide is the answer. So there is no in reading a guide especially this one. You can find what you are looking for. It should be here for you. So , don't miss that! Just read this e-book type for your better life and knowledge.

Download and Read Online A Transition to Advanced Mathematics: A Survey Course By William Johnston, Alex McAllister #HPLAYE9O2UG

Read A Transition to Advanced Mathematics: A Survey Course By William Johnston, Alex McAllister for online ebook

A Transition to Advanced Mathematics: A Survey Course By William Johnston, Alex McAllister 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 A Transition to Advanced Mathematics: A Survey Course By William Johnston, Alex McAllister books to read online.

Online A Transition to Advanced Mathematics: A Survey Course By William Johnston, Alex McAllister ebook PDF download

A Transition to Advanced Mathematics: A Survey Course By William Johnston, Alex McAllister Doc

A Transition to Advanced Mathematics: A Survey Course By William Johnston, Alex McAllister Mobipocket

A Transition to Advanced Mathematics: A Survey Course By William Johnston, Alex McAllister EPub

HPLAYE9O2UG: A Transition to Advanced Mathematics: A Survey Course By William Johnston, Alex McAllister