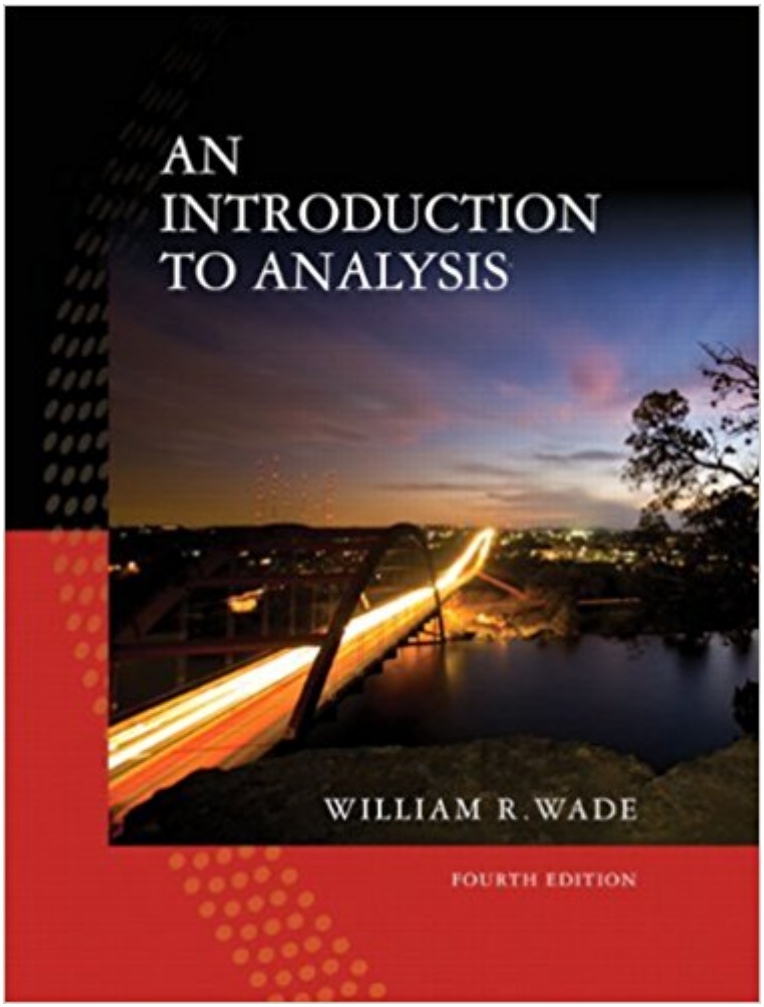
An Introduction To Analysis (4th Edition)



Synopsis

For one- or two-semester junior or senior level courses in Advanced Calculus, Analysis I, or Real Analysis. Ã Â This text prepares students for future courses that use analytic ideas, such as real and complex analysis, partial and ordinary differential equations, numerical analysis, fluid mechanics, and differential geometry. This book is designed to challenge advanced students while encouraging and helping weaker students. Offering readability, practicality and flexibility, Wade presents fundamental theorems and ideas from a practical viewpoint, showing students the motivation behind the mathematics and enabling them to construct their own proofs.

Book Information

Hardcover: 696 pages
Publisher: Prentice Hall; 4 edition (August 1, 2009)
Language: English
ISBN-10: 0132296381
ISBN-13: 978-0132296380
Product Dimensions: 7.2 x 1.1 x 9.4 inches
Shipping Weight: 2.5 pounds
Average Customer Review: 3.1 out of 5 stars 34 customer reviews
Best Sellers Rank: #66,154 in Books (See Top 100 in Books) #40 inÃ Â Books > Science & Math > Mathematics > Mathematical Analysis #178 inÃ Â Books > Textbooks > Science & Mathematics > Mathematics > Calculus #248 inÃ Â Books > Science & Math > Mathematics > Pure Mathematics > Calculus

Customer Reviews

Designed as a "bridge" between sophomore-level calculus to graduate-level courses that use analytic ideas, this text provides an unusually friendly, but rigorous treatment. It is friendly because the text helps link proofs together in a way that teaches students to think ahead: "Why this Theorem?" --This text refers to an out of print or unavailable edition of this title.

>>>>This text prepares readers for fluency with analytic ideas, such as real and complex analysis, partial and ordinary differential equations, numerical analysis, fluid mechanics, and differential geometry. This book is designed to challenge advanced readers while encouraging and helping readers with weaker skills. Offering readability, practicality and flexibility, Wade presents fundamental theorems and ideas from a practical viewpoint, showing readers the motivation behind

the mathematics and enabling them to construct their own proofs.Ã Â ONE-DIMENSIONAL THEORY; The Real Number System; Sequences inR; Continuity onR; Differentiability onR;Integrability onR;Infinite Series of Real Numbers; Infinite Series of Functions; MULTIDIMENSIONAL THEORY; Euclidean Spaces; Convergence inRn;Metric Spaces; Differentiability onRn;Integration onRn;Fundamental Theorems of Vector Calculus; Fourier SeriesÃ Â For all readers interested in analysis.]]>

This book does a decent job of introducing the student to the material without using too much abstraction or too little theorems. My favorite thing about the book is that chapters and theorems are usually given with context. This is great if you are new or curious as to why you are learning something. This is great because other books, such as Rudin’s Principles of Mathematical analysis, present you with a long list of axiom and principles without explaining why you are learning such rules until you workout the problems or reach the next chapter.With that said, don’t judge the book because your analysis class is difficult. Understand that Real Analysis is difficult because of awkwardness of multiple quantifiers, the unspecified conclusion of a question, and the human tendency to generalize or jump to conclusions.

I loved my Intro to Analysis class, despite this book. The textbook took a challenging subject and made it needlessly complicated. There aren’t enough examples and proofs, especially in the first two chapters (which is where they’re needed most, because we’re just starting).After the first two chapters the proofs improve and the examples are marginally more plentiful, but the author struggles with definitions throughout the entire book. He usually does a decent job presenting theorems (with some big failures, like Theorem 4.3), but for some reason he can’t define new terms in a clear way. He often fails to link the definition to his following example: The example doesn’t explain how it uses the definition, so it doesn’t help us understand the definition or how to use it. Sometimes the problem is a simple design/formatting issue: the "definition" is a single minimalist sentence enclosed in a text box, but information that is crucial to understanding the definition is on the previous page or in the next paragraph, not in the text box where it should be.The most embarrassing gaffe is in Chapter 4.1 where the author "proves" Example 4.7 in a single line. The proof starts, "By the Power Rule (see Exercise 4.2.7), the answer is"... QED. But the Power Rule isn’t introduced until the next chapter. Worse still, Exercise 4.2.7 is a homework problem that is left to the student, so you can’t follow along and see how the author got his answer. I would love to use that method on a test: "Proof: By a theorem you don’t know yet, the answer is 42. If you have

questions, just refer to a more advanced problem you haven’t seen yet. Once you solve that problem, use it to understand this basic concept."Finally, the notation is confusing and makes it hard to study and organize ideas. Is Theorem 4.3 in Chapter 4.3? No! Theorem 4.3 is in Chapter 4.1, along with Example 4.7. How about the homework exercises - do they follow the same naming convention? Not at all! They start with Exercise 4.1.0.OK, rant over. But professors, please consider using a different textbook. According to my professor, the 1st edition of Wade’s book was very well written, but every edition since then has been a step backwards. I don’t think they’ll continue to use Wade in following years. Also, why so many editions? Has analysis changed that much, or is it just an excuse for Pearson to sell more overpriced textbooks?I have Stephen Abbot’s "Understanding Analysis" and I find it presents the material better - using intuitive arguments followed up by rigorous proofs. But it’s not the text I used for the class, so I didn’t spend as much time reading it - maybe it has other shortcomings. One thing Wade offers that Abbot doesn’t is multi-dimensional theory. Still, it is worth investigating.As far as other options, a number of reviews have presented alternative texts. Unfortunately, anyone who has had the opportunity to compare & contrast multiple Intro Analysis textbooks is probably not a beginner to real analysis, so their point of view might differ from a beginner’s.If I were a professor looking for a new Intro Analysis textbook, I’d bring a copy of each of the texts I liked to the prerequisite class for Intro to Analysis. If the students in that class can self-study chapter 1 of the textbook, you’ve found a winner.

The content of the book is fine. However, I’m rating it 1 star because the binding is so incredibly terrible. This is my second copy of the book. Both copies have fallen apart within weeks. Professors, please reconsider using this book for your classes. It will bankrupt your students because they’ll literally need to buy several copies per quarter just because they fall apart so easily.

I would choose a different textbook if I were a person who really needed to learn Real Analysis. Somehow these authors get away with using symbols instead of actual words to explain these abstract concepts, it’s annoying in some chapters.

The book is very clear and explains topics well.

Good book. Could use a solution manual though.

I used this book for my first analysis course. Over all, I think it does a nice job, but it could use a little

tweeking. Let’s start with the good... First off, Wade understands the difficult time most students have with the transition from the early calculus courses to the higher, more abstract classes. Several proofs in this text are a little more drawn out than in others, and this is to aid the in the understaning of the art of proof writing (and it really is an art). Another think I liked is the variety of exercises. They range from relatively easy to rather difficult (I was unable to solve some...).Now for the bad... I really didn’t like the layout of some of the material. Especially in chapter 1. He states a definition, and then it’s results. Another definiton will be thrown in along with more results. Especially in chapter 1, it would be nice if all the definitions and axioms are put into one place, and the results to follow in a later section (Shilov does this, and I used his book a lot as well during the course). I find that referencing definitions that are organized in such a fashion much nicer.If you’re a budding mathematician, and would like to get a better understanding of analysis, I’d feel confident about adding this one to your collection.

Best real analysis book I’ve read yet.

Privacy

FAQ & Help