# A Course in Real Analysis



By Hugo D. Junghenn



A Course in Real Analysis By Hugo D. Junghenn

A Course in Real Analysis provides a rigorous treatment of the foundations of differential and integral calculus at the advanced undergraduate level. The book's material has been extensively classroom tested in the author's two-semester undergraduate course on real analysis at The George Washington University.

The first part of the text presents the calculus of functions of one variable. This part covers traditional topics, such as sequences, continuity, differentiability, Riemann integrability, numerical series, and the convergence of sequences and series of functions. It also includes optional sections on Stirling's formula, functions of bounded variation, Riemann–Stieltjes integration, and other topics.

The second part focuses on functions of several variables. It introduces the topological ideas (such as compact and connected sets) needed to describe analytical properties of multivariable functions. This part also discusses differentiability and integrability of multivariable functions and develops the theory of differential forms on surfaces in  $R^n$ .

The third part consists of appendices on set theory and linear algebra as well as solutions to some of the exercises. A full solutions manual offers complete solutions to all exercises for qualifying instructors.

With clear proofs, detailed examples, and numerous exercises, this textbook gives a thorough treatment of the subject. It progresses from single variable to multivariable functions, providing a logical development of material that will prepare students for more advanced analysis-based courses.

**Download** A Course in Real Analysis ...pdf

B Read Online A Course in Real Analysis ... pdf

# A Course in Real Analysis

By Hugo D. Junghenn

A Course in Real Analysis By Hugo D. Junghenn

A Course in Real Analysis provides a rigorous treatment of the foundations of differential and integral calculus at the advanced undergraduate level. The book's material has been extensively classroom tested in the author's two-semester undergraduate course on real analysis at The George Washington University.

The first part of the text presents the calculus of functions of one variable. This part covers traditional topics, such as sequences, continuity, differentiability, Riemann integrability, numerical series, and the convergence of sequences and series of functions. It also includes optional sections on Stirling's formula, functions of bounded variation, Riemann–Stieltjes integration, and other topics.

The second part focuses on functions of several variables. It introduces the topological ideas (such as compact and connected sets) needed to describe analytical properties of multivariable functions. This part also discusses differentiability and integrability of multivariable functions and develops the theory of differential forms on surfaces in  $R^n$ .

The third part consists of appendices on set theory and linear algebra as well as solutions to some of the exercises. A full solutions manual offers complete solutions to all exercises for qualifying instructors.

With clear proofs, detailed examples, and numerous exercises, this textbook gives a thorough treatment of the subject. It progresses from single variable to multivariable functions, providing a logical development of material that will prepare students for more advanced analysis-based courses.

### A Course in Real Analysis By Hugo D. Junghenn Bibliography

- Rank: #588832 in Books
- Brand: CRC Press
- Published on: 2015-02-13
- Original language: English
- Number of items: 1
- Dimensions: 1.00" h x 6.10" w x 9.30" l, 2.25 pounds
- Binding: Hardcover
- 613 pages

**Download** A Course in Real Analysis ...pdf

E Read Online A Course in Real Analysis ...pdf

## **Editorial Review**

#### Review

"... intended for a first course in real analysis. ... It could also be used to support an advanced calculus course. ... The approach is theoretical and the writing rigorously mathematical. There are numerous exercises. ... If a library needs to add to its collection in this area, this book would be a good choice. Summing up: Recommended. Upper-division undergraduates and graduate students." ?D. Z. Spicer, University System of Maryland, USA for *CHOICE*, October 2015

"The book is carefully written, with rigorous proofs and a sufficient number of solved and unsolved problems. It is suitable for most university courses in mathematical analysis." *?Zentralblatt MATH* 1317

#### About the Author

**Hugo D. Junghenn** is a professor of mathematics at The George Washington University. He has published numerous journal articles and is the author of several books, including *Option Valuation: A First Course in Financial Mathematics*. His research interests include functional analysis, semigroups, and probability.

#### **Users Review**

#### From reader reviews:

#### Susan Metcalf:

What do you concerning book? It is not important together with you? Or just adding material if you want something to explain what your own problem? How about your spare time? Or are you busy man or woman? If you don't have spare time to accomplish others business, it is make one feel bored faster. And you have free time? What did you do? Every person has many questions above. They should answer that question mainly because just their can do which. It said that about reserve. Book is familiar in each person. Yes, it is appropriate. Because start from on guardería until university need this kind of A Course in Real Analysis to read.

#### Harry Oliver:

Are you kind of busy person, only have 10 or maybe 15 minute in your moment to upgrading your mind ability or thinking skill also analytical thinking? Then you are receiving problem with the book in comparison with can satisfy your small amount of time to read it because pretty much everything time you only find e-book that need more time to be read. A Course in Real Analysis can be your answer given it can be read by anyone who have those short spare time problems.

#### **Clyde Traynor:**

Many people spending their moment by playing outside using friends, fun activity with family or just watching TV all day long. You can have new activity to pay your whole day by looking at a book. Ugh, ya think reading a book can actually hard because you have to use the book everywhere? It alright you can have the e-book, having everywhere you want in your Smartphone. Like A Course in Real Analysis which is obtaining the e-book version. So , why not try out this book? Let's find.

#### Julie Chambers:

Don't be worry when you are afraid that this book will certainly filled the space in your house, you might have it in e-book way, more simple and reachable. This specific A Course in Real Analysis can give you a lot of close friends because by you checking out this one book you have factor that they don't and make anyone more like an interesting person. This kind of book can be one of a step for you to get success. This e-book offer you information that maybe your friend doesn't know, by knowing more than different make you to be great people. So, why hesitate? Let's have A Course in Real Analysis.

# Download and Read Online A Course in Real Analysis By Hugo D. Junghenn #WSPIA76MEGU

# Read A Course in Real Analysis By Hugo D. Junghenn for online ebook

A Course in Real Analysis By Hugo D. Junghenn 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 Course in Real Analysis By Hugo D. Junghenn books to read online.

## Online A Course in Real Analysis By Hugo D. Junghenn ebook PDF download

## A Course in Real Analysis By Hugo D. Junghenn Doc

A Course in Real Analysis By Hugo D. Junghenn Mobipocket

A Course in Real Analysis By Hugo D. Junghenn EPub

WSPIA76MEGU: A Course in Real Analysis By Hugo D. Junghenn