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exposition and carefully written definitions, theorems, and proofs. It is organized in a distinctive, flexible way that would make it equally appropriate to undergraduate mathematics majors who want to continue in mathematics, and to future mathematics teachers

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thorough understanding of the theory behind the real number system and calculus.

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this new introduction to undergraduate real analysis the author takes a different approach from past studies of the subject, by stressing the importance of pictures in mathematics and hard problems. The exposition is informal and relaxed, with many helpful asides,

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examples and occasional comments from mathematicians like Dieudonne, Littlewood and Osserman. The author has taught the subject many times over the last 35 years at Berkeley and this book is based on the honours version of this course. The book contains an



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Real Analysis

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Integration; Series;  
Sequences and series of  
functions; Solutions to  
questions;  
Bibliographical notes;  
Bibliography; Index.**

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*subject of this book, but the foregoing will give the reader an idea of where my heart lies. The present book was written to support a first course in real analysis, normally taken after a year of elementary*



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*calculus. Real analysis is, roughly speaking, the modern setting for Calculus, "real" alluding to the field of real numbers that underlies it all. At center stage are functions, defined and taking values in sets of*

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*real numbers or in sets (the plane, 3-space, etc.) readily derived from the real numbers; a first course in real analysis traditionally places the emphasis on real-valued functions defined on sets of*

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Mathematical Analysis

The Real Analysis



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the subject and help fix the concepts. They develop a unified understanding of limits, continuity, differentiability, Riemann integrability, and infinite series of numbers and functions.

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Invitation to Real Analysis  
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