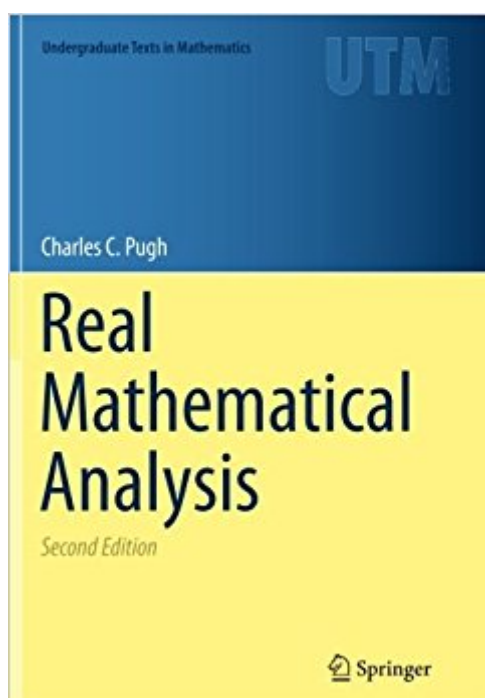**The book was found**

Real Mathematical Analysis (Undergraduate Texts In Mathematics)

Synopsis

Based on an honors course taught by the author at UC Berkeley, this introduction to undergraduate real analysis gives a different emphasis by stressing the importance of pictures and hard problems. Topics include: a natural construction of the real numbers, four-dimensional visualization, basic point-set topology, function spaces, multivariable calculus via differential forms (leading to a simple proof of the Brouwer Fixed Point Theorem), and a pictorial treatment of Lebesgue theory. Over 150 detailed illustrations elucidate abstract concepts and salient points in proofs. The exposition is informal and relaxed, with many helpful asides, examples, some jokes, and occasional comments from mathematicians, such as Littlewood, DieudonnÃ©, and Osserman. This book thus succeeds in being more comprehensive, more comprehensible, and more enjoyable, than standard introductions to analysis.New to the second edition of Real Mathematical Analysis is a presentation of Lebesgue integration done almost entirely using the undergraph approach of Burkill. Payoffs include: concise picture proofs of the Monotone and Dominated Convergence Theorems, a one-line/one-picture proof of Fubini's theorem from Cavalieriâ ™s Principle, and, in many cases, the ability to see an integral result from measure theory. The presentation includes Vitaliâ ™s Covering Lemma, density points â • which are rarely treated in books at this level â • and the almost everywhere differentiability of monotone functions. Several new exercises now join a collection of over 500 exercises that pose interesting challenges and introduce special topics to the student keen on mastering this beautiful subject.

Book Information

Customer Reviews

This book, in its second edition, provides the basic concepts of real analysis. I strongly recommend it to everyone who wishes to study real mathematical analysis. (C t lin Barbu, zbMATH 1329.26003, 2016)""This book, in its second edition, provides the basic concepts of real analysis. ... I strongly recommend it to everyone who wishes to study real mathematical analysis." (CÄƒtÄƒlin Barbu, zbMATH 1329.26003, 2016)

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(There are already several reviews about the content of the book under the first edition.)During the last year, Springer has published new editions of several books in the UTM series (Axler: Linear Algebra Done Right, Ross: Elementary Analysis, Abbott: Understanding Analysis). I have bought all of these from and received nicely produced books, on good paper quality and all in exactly the same format.When I received the second edition of Pugh: Real Mathematical Analysis, however, it was immediately clear that this is a print-on-demand book, even though it was first published on July 30, 2015. The format is weird, much bigger than the other books in the series. The paper quality is

cheap, like what you use for your printer, not what you expect from a book. Presumably Springer has not even bothered to do a first run of proper copies, but have gone straight to the POD quality that they use for most books. I thought it was safe because the book was just published, but I was wrong. Maybe I was just unlucky, but I just wanted to warn other buyers who might care about this issue.

Incredible book. This is how a top-notch mathematicians writes when he actually cares about educating the reader and aren't lazy. When they decide, "Maybe I can be a good teacher and not pretend like all of this was a cakewalk." It's also proof that a rigorous math text doesn't have to be dry and diagramless. I own many calculus and real analysis books. From Spivak, Apostol 1 & 2, Morrey, Hille, Rudin, Gleason, Loomis and Sterberg, Stromberg, Bishop, Thomas, etc. This book holds its own, and for around $25.00, it's a steal. I'm used to authors that basically throw you in the deep-end; if you drowned, so be it. You weren't meant to be a mathematician. Professor Pugh gets an "A+" for effort and content with this book. It's beautiful and should be required reading in all college calculus courses. For any students that pick this book up and complain, you shouldn't be a mathematician or in a deductive discipline. Take up acrostics or beekeeping, as Kleene'd likely put it.

This is the first course in Real Analysis. The book starts with set theory, includes point set topology, theory behind differentiation and Riemann integration, functional spaces, multivariable calculus, and ends with a chapter on Lebesgue integration. The chapter on point set topology is so much better than what you find in Rudin. Even chapters on multivariable calculus and Lebesgue integration are better explained than in Rudin. This author stresses on intuition and has lots of diagrams that makes this text quite different from other books on basic real analysis.

Can the condition of an ordered book be the basis for evaluating the book? No. This book is an excellent book for students who are in the third year of college or higher to use as reference for Analysis. Do not judge everything by looking at the exterior.

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