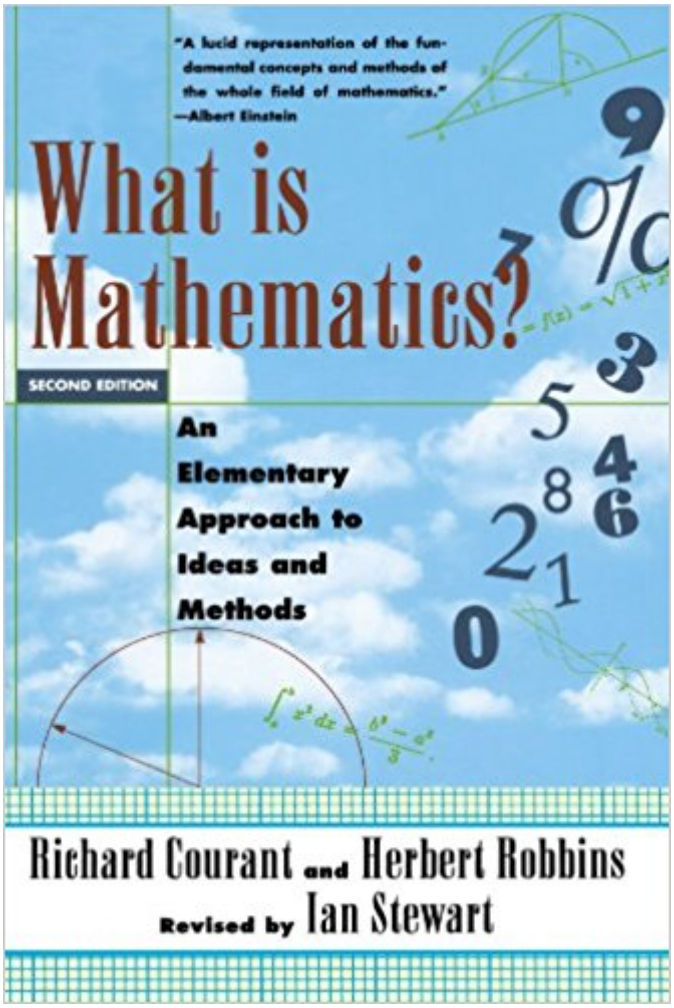
What Is Mathematics? An Elementary Approach To Ideas And Methods



Synopsis

For more than two thousand years a familiarity with mathematics has been regarded as an indispensable part of the intellectual equipment of every cultured person. Today, unfortunately, the traditional place of mathematics in education is in grave danger. The teaching and learning of mathematics has degenerated into the realm of rote memorization, the outcome of which leads to satisfactory formal ability but does not lead to real understanding or to greater intellectual independence. This new edition of Richard Courant's and Herbert Robbins's classic work seeks to address this problem. Its goal is to put the meaning back into mathematics. Written for beginners and scholars, for students and teachers, for philosophers and engineers, What is Mathematics?, Second Edition is a sparkling collection of mathematical gems that offers an entertaining and accessible portrait of the mathematical world. Covering everything from natural numbers and the number system to geometrical constructions and projective geometry, from topology and calculus to matters of principle and the Continuum Hypothesis, this fascinating survey allows readers to delve into mathematics as an organic whole rather than an empty drill in problem solving. With chapters largely independent of one another and sections that lead upward from basic to more advanced discussions, readers can easily pick and choose areas of particular interest without impairing their understanding of subsequent parts. Brought up to date with a new chapter by Ian Stewart, What is Mathematics?, Second Edition offers new insights into recent mathematical developments and describes proofs of the Four-Color Theorem and Fermat's Last Theorem, problems that were still open when Courant and Robbins wrote this masterpiece, but ones that have since been solved.Formal mathematics is like spelling and grammar--a matter of the correct application of local rules. Meaningful mathematics is like journalism--it tells an interesting story. But unlike some journalism, the story has to be true. The best mathematics is like literature--it brings a story to life before your eyes and involves you in it, intellectually and emotionally. What is Mathematics is like a fine piece of literature--it opens a window onto the world of mathematics for anyone interested to view.

Book Information

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Customer Reviews

A 1996 revision of a timeless classic originally published in 1941. Highly recommended for any serious student, teacher or scholar of mathematics.

*Praise for the previous edition:"Without doubt, the work will have great influence. It should be in the hands of everyone, professional or otherwise, who is interested in scientific thinking."--The New York Times"Should prove a source of great pleasure and satisfaction."--Journal of Applied Physics"Succeeds brilliantly in conveying the intellectual excitement of mathematical inquiry and in communicating the essential ideas and methods."Journal of Philosophy"It is a work of high perfection, whether judged by aesthetic, pedagogical or scientific standards. It is astonishing to what extent What is Mathematics? has succeeded in making clear by means of the simplest examples all the fundamental ideas and methods which we mathematicians consider the life blood of our science."--Herman Weyl

I’m really excited to have gotten this book. I used to hate math, and as a college student, I got lucky enough to have a great teacher who helped me appreciate the subject. This book has everything! The basics all the way through calculus. It’s accessible to many levels too. When I finish school and begin teaching, I will be using this book to create lesson plans. Out toy like math at all, or want to learn, this is a great book.

My first attempt to read this book was during my undergraduate studies. Twenty years later, I am now discarding my college textbooks and "What Is Mathematics" has resurfaced. When the student is ready, the master will appear. It’s a great book and for certain people worth the journey. Yes, a little dated but I think that adds to the charm.

Great intro. Great early story entries. I however after my odd College Mathematics will have to grow into this one. I have truly realized something of logic from the read. Make way for the clarity in your

thinking process where you become restimulated.

One of the greatest math book I have read in my life. The author touches almost all the topics and covers a great amount of background for every topics.A must read for every math lover.

Better than reading some novels really has me hooked on math. Book was in excellent condition.

If you love mathematics, you will love this book. It is simple to read and gives hundreds of clear examples on solving mathematical problems and great insights into the history of mathematics. This book is helping me understand and appreciate mathematics. It is excellent for those students interested in continuing exploring the world of mathematics. It is definitely a work of art.

Great survey of the breadth of math. Gets a little technical at times.

Read it slowly and savor it like a fine multi course meal. This is tasty.

Arithmetic Workbook With Answers: Daily Practice guide for elementary students and other kids (Elementary Division Series) (Volume 1) ELEMENTARY SCIENCE 2000 TRADE LIBRARY WHATS THE BIG IDEA BEN FRANKLIN COPYRIGHT 2000 (Elementary Science Trade Library) Striker Jones: Elementary Economics for Elementary Detectives (Striker Jones Economics for Kids Mysteries Book 1) A Simply Classic Nutcracker: For Elementary to Late Elementary Pianists Praxis II Elementary Education Multiple Subjects 5001 Study Guide: Test Prep & Practice Test Questions for the Praxis 2 Elementary Education Multiple Subjects 5001 Exam Student Solutions Manual to accompany Boyce Elementary Differential Equations 10e & Elementary Differential Equations with Boundary Value Problems 10e