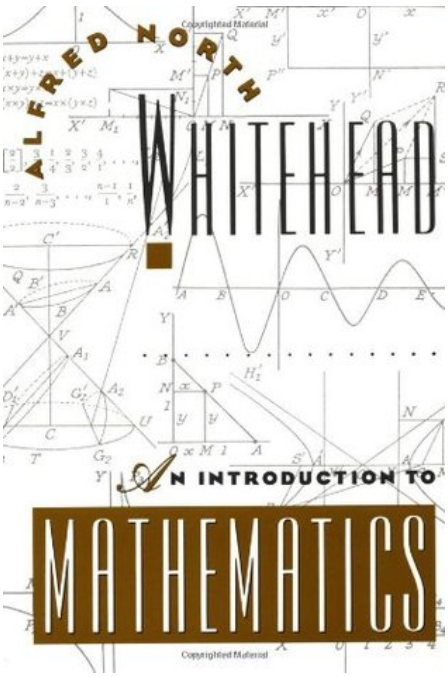

An Introduction to Mathematics

Alfred North Whitehead

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This distinguished little book offers a brisk introduction to a series of mathematical concepts, a history of their development, and a concise summary of how today's reader may use them.

An Introduction to Mathematics Details

Date	:	Published January 1st 1959 by Oxford University Press, USA (first published January 1st 1958)
ISBN	:	9780195002119
Author	:	Alfred North Whitehead
Format	:	Paperback 208 pages
Genre	:	Science, Mathematics, Philosophy, Nonfiction

From Reader Review An Introduction to Mathematics for online ebook

Bob G says

He did an excellent job of explaining basic mathematics. As a math major many years ago, I understood this stuff. What the author did was to explain some of the core principles that underlie math. Showing why "any" and "some" are important words never occurred to me while studying math. It is now much clearer.

Roy Lotz says

A big fat book that has, of late, been sitting on the shelf in front of me is titled *What is Mathematics?* That book and this one should switch titles. When a student puts down *What is Mathematics?* they will know how to do various types of math problems, but not what math is. And when a student puts down this book, they will have a general idea of what math is, and won't be able to solve any problems.

This is actually my favorite book of mathematics that I've read (which isn't saying very much). It's charming and interesting all the way through. Whitehead is a skilled writer—throwing in various anecdotes to enliven the otherwise dry material—so the book is a pleasure to read. He is also a skilled educator, and picks examples that are both crystal clear and that effectively build on one another as the book progresses.

But what I really enjoyed was that Whitehead actually attempted to explain what math *is*. For example, when I finished the chapter on trigonometry in this book, I had a realization: though I've solved dozens, perhaps hundreds, of trig problems in high school, I hadn't the slightest idea what I was actually doing. I was little better than a chimpanzee following a routine in order to get a treat. But Whitehead, in just twenty pages, manages to get at the heart of trigonometry, and to show its relationship to other, more familiar, branches of math.

That being said, I'm not sure who I'd recommend this book to. If you are already a math whiz, you will almost certainly be bored. If you are looking to improve your skill in solving math problems, look elsewhere. But if you are (relatively) mathematically ignorant, while at the same time philosophically inclined, and appreciate a generally charming writer, then this book is perfect for you.

Krollo says

Simply fascinating. A pinch of maths, a pinch of philosophy, a pinch of wonderful writing... all combined to make a great instructional text on how to understand maths as a whole.

Rich Hobbie says

Great Book!

Anyone who has studied mathematics through differential and integral calculus will enjoy the historical and philosophical allusions in this book. I particularly enjoyed the exposition on trigonometry and triangulation.

Andrew Shores says

I was re-reading this book to see whether any part would work as a reading for one of my classes. Unfortunately, this book is too old for it to be of much use there. It talks about light moving through the ether and it refers to people and places in England that few of my students (if any) would know (I didn't know most of them).

There are good paragraphs and I appreciate the book because it was probably one of the first books that attempted to talk about mathematics to a general audience.

Denise says

"These three notions, of the variable, of form, and of generality, compose a sort of mathematical trinity which preside over the whole subject. They all really spring from the same root, namely from the abstract nature of the science." - pg 67
"Now in creative thought common sense is a bad master. Its sole criterion for judgment is that the new ideas shall look like the old ones. In other words it can only act by suppressing originality." - pg 132
"The difficulty that beginners find in the study of this science is due to the large amount of technical detail which has been allowed to accumulate in the elementary text-books, obscuring the important ideas." - pg 213

Chris March says

A fine review of high school math, plus some history and context. I might have enjoyed it, if an editor had trimmed down some of the verbiage.

Josh says

Essentially a review of pure-level math in high-school, with more emphasis on explicating concepts and their origins than practical applications and problem solving. It's not dumbed down and makes efforts to describe the developments and proofs of mathematical thought, so I couldn't recommend it to anyone not already a little familiar with the concepts.

This text is just over 100 years old, but despite a few changes in notation and some anachronisms (it mentions the ether when describing physics), elementary math has largely stayed the same. While I'm not bad at math, I've never had any interest in studying it for its own sake. This book has gone some way to show me the light, as it were. I recommend it to anyone who needs a fresh perspective on math, and is sufficiently ignorant about the subject so-as not to be bored to tears.

Sean Martin says

Fun, but mainly of historical interest rather than technical.

Justin says

I still get lost on some of this stuff, but Whitehead's exposition is great. Makes you wonder what happened to him. Wish I'd read this book a lot earlier, when I was actually working on mathematics. The problems he points out with textbooks seem to be worse today, and not only in mathematics.

Roberto Rigolin F Lopes says

Striking review of fundamental concepts from a distinguished teacher. This is enlightening + engaging because you get the concepts plus its importance within the body of knowledge. Not to mention the historical context. For instance, Whitehead remember us that Archimedes was killed by a Roman soldier while contemplating a mathematical diagram and no Roman ever died in such conditions. This book is full of insights; go for it if you want to refresh your view of Mathematics having lots of fun.
