

# Undegraduate Mathematics

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# Chapter 1

## Preface

This project started as a possible review of all topics revisited in an undergraduate math course.



## Chapter 2

# Introduction to Mathematics

First, a word about sets. These are the most primitive objects in mathematics. We use the following observation by Cantor

By an aggregate [set] we are to understand any collection into a whole  $M$  of definite and separate objects  $m$  of our intuition or our thought. These objects we call the elements of  $M$

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*Cantor*

We start with an informal definition of Natural numbers, recall that we can put this in stone observations, using the Peano axioms