

Number Systems and the Foundations of Analysis

Mathematical Adventures

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Preface

The aim of this book is to study the basic number system of mathematics using as a principal guide Mendelson (2008) and other supplementary materials.

The idea is to develop all the topics and solve the exercises proposed in Mendelson (2008) as it has done in [Mathematical Adventures](#)

1 Basic Facts and Notions of Logic and Set Theory

This chapter introduces the concepts and terminology of logic and set theory

1.1

2 The Natural Numbers

3 The Integers

4 Rational Numbers and Ordered Fields

5 The Real Number System

References

Mendelson, Elliott. 2008. *Number Systems and the Foundations of Analysis*. Mineola, N.Y.: Dover Publications.

A Equality

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