

# Solutions to Book Of Proof

Son To  
<son.trung.to@gmail.com>

*Fazer Oy, Arcada Ammattikorkeakoulu*

January 12, 2020



# Preface

An attempt at solving all the exercises.

Helsinki, Finland  
11<sup>th</sup> January, 2020

# Contents

<b>Preface</b>	<b>i</b>
<b>Contents</b>	<b>ii</b>
<b>I Fundamentals</b>	<b>1</b>
<b>1 Sets</b>	<b>3</b>
1.1 Introduction to sets . . . . .	3
1.1.1 . . . . .	3
1.1.2 . . . . .	3
1.1.3 . . . . .	3
1.1.4 . . . . .	3
1.1.5 . . . . .	3
1.1.6 . . . . .	3
1.1.7 . . . . .	3
1.1.8 . . . . .	3
1.1.9 . . . . .	4
1.1.10 . . . . .	4

**Part I**

**Fundamentals**



# Chapter 1

## Sets

### 1.1 Introduction to sets

#### 1.1.1

$\{\dots -16, -11, -6, -1, 4, 9, 14, \dots\}$ .

#### 1.1.2

$\{\dots -7, -4, -1, 2, 5, 8, 11, \dots\}$ .

#### 1.1.3

$\{-2, -1, \dots, 6\}$ .

#### 1.1.4

$\{1, 2, \dots, 7\}$ .

#### 1.1.5

$\{\pm\sqrt{3}\}$ .

#### 1.1.6

$\{\pm 3\}$ .

#### 1.1.7

$\{-2, -3\}$ .

#### 1.1.8

$\{0, -2, -3\}$ .

**1.1.9** $\mathbb{Z}$ .**1.1.10** $\{2\pi x : x \in \mathbb{Z}\}$ .