

# LaTeX Document

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## Contents

### 1 Introduction

This is a brief introduction to the exercise set.

#### 1.1 Formatting Text

Here are examples of: **Bold text** and *italic text*.

### 2 Mathematical Notation

Here is an example equation:

$$E = mc^2 \tag{1}$$

### 3 BibTeX

Here is a reference using BibTeX (?).

### 4 Table Example

Column 1	Column 2
Row 1	Cell 1
Row 2	Cell 2

Table 1: Example Table

### 5 Font families

#### 5.1 Serif

This is a serif font.

#### 5.2 Sans-serif

This is a sans-serif font.

### 5.3 Mono-spaced

This is a mono-spaced font.

## 6 Rulers

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## 7 Spaces

### 7.1 Horizontal Spaces

Some text. with horizontal space.

### 7.2 Vertical Spaces

Some text with vertical space. Here is some text after a vertical space.

## 8 Theorems and Proofs

### 8.1 Pythagorean Theorem

In a right triangle, the square of the length of the hypotenuse ( $c$ ) is equal to the sum of the squares of the lengths of the other two sides ( $a$  and  $b$ ).

*Proof.* This is a proof of the Pythagorean theorem.

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