Exercise Set

Walid Alwahabi

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Contents

1 Introduction

This exercise will focus on the different ways you use Latex

1.1 Formatting Text

In this section, we demonstrate formatting text using bold and italic styles:

- **Bold text**
- *Italic text*

2 Mathematical Notation

Here is an example equation using the equation environment:

$$E = mc^2$$

3 BibTeX

(Mason & Rennie 2006)

References

Mason, R. & Rennie, F. (2006), *E-learning : the key concepts*, Routledge.

4 Table Example

Row 1, Col 1	Row 1, Col 2
Row 2, Col 1	Row 2, Col 2

Table 1: Example Table

5 Font families

Serif font family: This text is in serif font. Sans-serif font family: This text is in sans-serif font.
`Mono-spaced font family:` This text is in mono-spaced font.

6 Rulers

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7 Spaces

7.1 Horizontal Spaces

This is some text. This is text with extra horizontal space.

7.2 Vertical Spaces

This is some text.

This is text with extra vertical space.

8 Theorems and Proofs

8.1 Pythagorean Theorem

Pythagorean Theorem 1. *Given a right-angle triangle with hypotenuse of length c and side lengths a and b, we have:*

$$c^2 = a^2 + b^2 \tag{1}$$

Proof. Now we start with four copies of the same triangle. Three of these have been rotated 90°, 180°, and 270°, respectively. Each has area $\frac{ab}{2}$. Let's put them together without additional rotations so that they form a square with side $(a + b)$ and a square hole with side c.

$$(a+b)^2 = 4\frac{ab}{2} + c^2 \tag{2}$$

$$a^2 + 2ab + b^2 = 2ab + c^2 \tag{3}$$

$$a^2 + b^2 = +c^2 \tag{4}$$

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