

# My First LaTeX Document

Your Name

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## 1 Introduction

This is my first document in  $\text{\LaTeX}$ . I can write text here and format it easily.

### 1.1 Why Use LaTeX?

LaTeX is great for:

- Writing academic papers
- Creating mathematical equations
- Formatting text professionally

## 2 Mathematics in LaTeX

LaTeX makes it easy to write equations. For example:

$$E = mc^2$$

Here's an inline equation:  $a^2 + b^2 = c^2$ .

### Matrix Example

Here is a simple  $3 \times 3$  matrix:

$$A = \begin{pmatrix} 1 & 2 & 3 \\ 4 & 5 & 6 \\ 7 & 8 & 9 \end{pmatrix}$$

This is an inline equation:  $a^2 + b^2 = c^2$ .

You can also create a matrix without brackets:

$$B = \begin{matrix} 1 & 2 & 3 \\ 4 & 5 & 6 \\ 7 & 8 & 9 \end{matrix}$$