1 Introduction

This is a sample LaTeX document. LaTeX is a high-quality typesetting system that is particularly useful for technical and scientific documents.

2 Basic Formatting

2.1 Text Formatting

You can use **bold text**, *italic text*, and <u>underlined text</u>. You can also use `monospace text` for code.

2.2 Lists

Here's an unordered list:

- First item
- Second item
- Third item

And here's an ordered list:

1. First numbered item
2. Second numbered item
3. Third numbered item

3 Mathematics

LaTeX excels at typesetting mathematics. Here are some examples:

Inline math: The quadratic formula is $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$.

Display math:

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

A more complex equation:

$$\int_{-\infty}^{\infty} e^{-x^2} dx = \sqrt{\pi} \tag{2}$$

4 Tables

Here's a simple table:

5 References

You can reference sections, equations, and tables. For example, see Table **??** or Equation 3.

$$ax^2 + bx + c = 0 \tag{3}$$

6 Conclusion

This sample document demonstrates many of the basic features of LaTeX. For more information, visit `https://www.latex-project.org/`.