Method 1 - pdflatex (Simple) Test Document - Simple Version
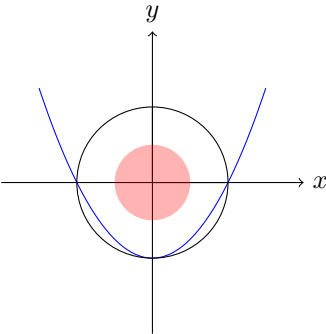
June 4, 2025

1 Mathematical Content

The quadratic formula is $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$
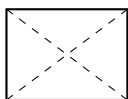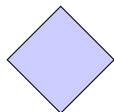
$$E = mc^2 \tag{1}$$

$$F = ma \tag{2}$$

$$\nabla \times \vec{E} = -\frac{\partial \vec{B}}{\partial t} \tag{3}$$

2 TikZ Graphics

3   Additional TikZ - Scope Environment

4   Tabular Data

Method	Speed	Quality
pdflatex	Fast	Good
xelatex	Medium	Excellent
lualatex	Medium	Very Good

Table 1: Comparison of LaTeX engines

5   Additional Table

Package	Lines	Complexity
amsmath	2000+	Medium
tikz	50000+	High
array	500+	Low

Table 2: Package statistics

6   Mathematical Examples

Some inline math: $\int_0^\infty e^{-x^2} dx = \frac{\sqrt{\pi}}{2}$

Display math:

$$\sum_{n=1}^{\infty} \frac{1}{n^2} = \frac{\pi^2}{6} \tag{4}$$

Matrix example:

$$\begin{pmatrix} a & b \\ c & d \end{pmatrix} \begin{pmatrix} x \\ y \end{pmatrix} = \begin{pmatrix} ax + by \\ cx + dy \end{pmatrix} \tag{5}$$