

Mathematical Typesetting Using \LaTeX

Jonathan R. Bacolod

Sauyo High School

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Overview

What is \LaTeX ?

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- It is **not** a word processor.

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- Typesetting of complex mathematical formulas.
- Automatic generation of bibliographies and indexes.

What is the Structure of a \LaTeX file?

Sample \LaTeX File

```
\documentclass[11pt,letterpaper]{article} % preamble
\usepackage[margin=1in]{geometry} % preamble

\begin{document}
  Hello, World! % the body
\end{document}
```

What is the Preamble?

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It is a collection of commands that specify the global processing parameters, such as paper format, height and width of the text, automatic page heads and footlines.

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- Examples:

```
\documentclass[twocolumn]{book}  
\documentclass[12pt, twoside]{article}  
\documentclass[11pt, twoside, twocolumn]{report}  
\documentclass[17pt]{beamer}
```

Thank you!

Online Sources

<https://www.latex-project.org/about/>