LaTeX Typeset documents

CONCEPTS

Source is plain text: commands start with a backslash, groups use {braces}, % starts a comment.

.tex source your text
↓ pdflatex
.aux .toc .bbl refs, contents, citations
↓ run again
PDF final output

Cross-references and the table of contents need two runs; latexmk repeats runs for you.

Blank line starts a new paragraph; a single line break is just a space.

DOCUMENT STRUCTURE

`\documentclass[11pt,a4paper]{article}`
Class and options

`\usepackage{<pkg>}`
Load a package (preamble)

`\title{<t>} \author{<a>} \date{\today}`
Title block data

`\maketitle`
Print the title block

`\section{<t>}`
Numbered section

`\subsection{<t>}`
Subsection

TEXT

`\textbf{<text>}`
Bold

`\textit{<text>}`
Italic

`\includegraphics[width=\linewidth]{<img>}`
Insert image (graphicx)

LISTS

`\begin{itemize} \item <a> \end{itemize}`
Bullet list

`\begin{enumerate} \item <a> \end{enumerate}`
Numbered list

MATH

`$ a^2 + b^2 $`
Inline math

`\[ <formula> \]`
Display math, unnumbered

`\begin{align} a &= b \\ &= c \end{align}`
Aligned multi-line (amsmath)

`x^{2}  x_{i}`
Superscript, subscript

`\frac{<a>}{<b>}`
Fraction

`\sum_{i=1}^{n}  \int_a^b  \prod`
Sum, integral, product

TABLES

`\begin{tabular}{lcr}`
Columns: left, centre, right

`a & b & c \\`
Cells split by &, row ends \\

FIGURES AND REFERENCES

`\label{<key>}`
Name a place (after \caption)

`\ref{<key>}`
Number of labelled item

BIBLIOGRAPHY

`\cite{<key>}`
Cite an entry

BUILD

`latexmk -pdf <file>.tex`
Build, rerun as needed