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