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

`\usepackage[margin=2.5cm]{geometry}`
Set page margins

`\usepackage{hyperref}`
Clickable links; load last

TEXT

`\textbf{`*text*`}`
Bold

`\textit{`*text*`}`
Italic

`\emph{`*text*`}`
Emphasis

TEXT (cont.)

`\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

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