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