

# LaTeX 2 $\epsilon$ Cheat Sheet

## Document classes

`book` Default is two-sided.  
`report` No `\part` divisions.  
`article` No `\part` or `\chapter` divisions.  
`letter` Letter (?).  
`slides` Large sans-serif font.  
 Used at the very beginning of a document:  
`\documentclass{class}`. Use `\begin{document}` to start contents and `\end{document}` to end the document.

## Common document class options

`10pt/11pt/12pt` Font size.  
`letterpaper/a4paper` Paper size.  
`twocolumn` Use two columns.  
`twoside` Set margin for two-sided.  
`landscape` Landscape orientation. Must use dvips  
    -`t landscape`.  
`draft` Double-space lines.  
 Usage: `\documentclass[opt,opt]{class}`.

## Packages

`fullpage` Use 1 inch margins.  
`ansizone` Set margins: `\marginsize{l}{r}{t}{b}`.  
`multicol` Use  $n$  columns: `\begin{multicols}{n}`.  
`latextsym` Use L<sup>A</sup>T<sub>E</sub>X symbol font.  
`graphicx` Show image: `\includegraphics[width=x]{file}`.  
`url` Insert URL: `\url{http://...}`.  
 Use before `\begin{document}`. Usage: `\usepackage{package}`

## Title

`\author{text}` Author of document.  
`\title{text}` Title of document.  
`\date{text}` Date.  
 These commands go before `\begin{document}`. The declaration `\maketitle` goes at the top of the document.

## Miscellaneous

`\pagestyle{empty}` Empty header, footer and no page numbers.

## Document structure

`\part{title}`                    `\subsubsection{title}`  
`\chapter{title}`                `\paragraph{title}`  
`\section{title}`                `\subparagraph{title}`  
`\subsection{title}`  
 Section commands can be followed with an \*, like  
`\section*(title)`, to suppress heading numbers.  
`\setcounter{secnumdepth}{x}` suppresses heading numbers of depth  $x$ , where `chapter` has depth 0.

**Text environments**

`\begin{comment}` Comment block (not printed).  
`\begin{quote}` Indented quotation block.  
`\begin{quotation}` Like quote with indented paragraphs.  
`\begin{verse}` Quotation block for verse.

## Lists

`\begin{enumerate}` Numbered list.  
`\begin{itemize}` Bulleted list.  
`\begin{description}` Description list.  
`\item{text}` Add an item.  
`\item[x]{text}` Use  $x$  instead of normal bullet or number.  
 Required for descriptions.

## References

`\label{marker}` Set a marker for cross-reference, often of the form `\label{sec:item}`.  
`\ref{marker}` Give section/body number of marker.  
`\pageref{marker}` Give page number of marker.  
`\footnote{text}` Print footnote at bottom of page.

## Floating bodies

`\begin{table}[place]` Add numbered table.  
`\begin{figure}[place]` Add numbered figure.  
`\begin{equation}[place]` Add numbered equation.  
`\caption{text}` Caption for the body.  
 The `place` is a list valid placements for the body. `t=top`, `h=here`, `b=bottom`, `p=separate page`, `!place even if ugly`. Captions and label markers should be within the environment.

## Text properties

### Font face

Command	Declaration	Effect
<code>\textrm{text}</code>	<code>\rmfamily text</code>	Roman family
<code>\textsf{text}</code>	<code>\sfamily text</code>	Sans serif family
<code>\texttt{text}</code>	<code>\ttfamily text</code>	Typeewriter family
<code>\textmd{text}</code>	<code>\mdseries text</code>	Medium series
<code>\textbf{text}</code>	<code>\bfseries text</code>	Bold series
<code>\textup{text}</code>	<code>\upshape text</code>	Upright shape
<code>\textit{text}</code>	<code>\itshape text</code>	Italic shape
<code>\textsl{text}</code>	<code>\slshape text</code>	Slanted shape
<code>\textsc{text}</code>	<code>\scshape text</code>	SMALL CAPS SHAPE
<code>\textemph{text}</code>	<code>\em text</code>	Emphasized
<code>\textnormal{text}</code>	<code>\normalfont text</code>	Document font
<code>\underline{text}</code>		<u>Underline</u>

The command (`ttt`) form handles spacing better than the declaration (`ttt`) form.

### Font size

<code>\tiny</code>	<code>\tiny</code>	<code>\Large</code>	<code>\Large</code>
<code>\scriptsize</code>	<code>\scriptsize</code>	<code>\LARGE</code>	<code>\LARGE</code>
<code>\footnotesize</code>	<code>\footnotesize</code>		
<code>\small</code>	<code>\small</code>	<code>\huge</code>	<code>\huge</code>
<code>\normalsize</code>	<code>\normalsize</code>		
<code>\large</code>	<code>\large</code>	<code>\Huge</code>	<code>\Huge</code>

These are declarations and should be used in the form `\small ...`, or without braces to affect the entire document.

## Verbatim text

`\begin{verbatim}` Verbatim environment.  
`\begin{verb+text+}` Spaces are shown as `+.`.  
`\verb!text!` Text between the delimiting characters (in this case '!'') is verbatim.

## Justification

Environment	Declaration
<code>\begin{center}</code>	<code>\centering</code>
<code>\begin{flushleft}</code>	<code>\raggedright</code>
<code>\begin{flushright}</code>	<code>\raggedleft</code>

## Miscellaneous

`\linespread{x}` changes the line spacing by the multiplier  $x$ .

## Text-mode symbols

### Symbols

<code>&amp;</code>	<code>\&amp;</code>	<code>-</code>	<code>\_</code>	<code>\dots</code>	<code>\ldots</code>	<code>\textbullet</code>
<code>\$</code>	<code>\\$</code>	<code>^</code>	<code>\^O</code>	<code> </code>	<code>\textbar</code>	<code>\textbackslash</code>
<code>%</code>	<code>\%</code>	<code>~</code>	<code>\^O</code>	<code>#</code>	<code>\#</code>	<code>\\$</code>

### Accents

<code>\`o</code>	<code>\^o</code>	<code>\~o</code>	<code>\^o</code>	<code>\^o</code>	<code>\`o</code>
<code>\`o</code>	<code>\^o</code>	<code>\c o</code>	<code>\v o</code>	<code>\H o</code>	<code>\H o</code>
<code>\`c c</code>	<code>\^d o</code>	<code>\o b o</code>	<code>\o t oo</code>	<code>\oe oe</code>	<code>\oe oe</code>
<code>\OE</code>	<code>\AE</code>	<code>\AA aa</code>	<code>\AA AA</code>		
<code>\`o</code>	<code>\^o</code>	<code>\`l l</code>	<code>\L L</code>	<code>\`i</code>	<code>\i</code>
<code>\`j</code>	<code>\^i</code>	<code>\?'</code>	<code>\?'</code>		

### Delimiters

<code>\{</code>	<code>\{</code>	<code>\{</code>	<code>\{</code>	<code>\{</code>	<code>\{</code>	<code>\textless \textless</code>
<code>\}</code>	<code>\}</code>	<code>\}</code>	<code>\}</code>	<code>\}</code>	<code>\}</code>	<code>\textgreater \textgreater</code>

### Dashes

Name	Source	Example	Usage
hyphen	-	X-ray	In words.
en-dash	--	1-5	Between numbers.
em-dash	---	Yes—or no?	Punctuation.

### Line and page breaks

<code>\\</code>	<code>\</code>	Begin new line without new paragraph.
<code>\*</code>		Prohibit pagebreak after linebreak.
<code>\kill</code>		Don't print current line.
<code>\pagebreak</code>		Start new page.
<code>\noindent</code>		Do not indent current line.

### Miscellaneous

<code>\today</code>	October 23, 2006.
<code>\\$~\\$</code>	Prints ~ instead of <code>\^O</code> , which makes ~.
<code>\~</code>	Space, disallow linebreak ( <code>W.J.\~Clinton</code> ).
<code>\.</code>	Indicate that the . ends a sentence when following an uppercase letter.
<code>\hspace{l}</code>	Horizontal space of length $l$ (Ex: <code>l = 20pt</code> ).
<code>\vspace{l}</code>	Vertical space of length $l$ .
<code>\rule{w}{h}</code>	Line of width $w$ and height $h$ .