

L^AT_EX 2_& Cheat Sheet

Mathematics

Delimiters

```
| \lvert, \rvert, \vert
|| \lVert, \rVert, \Vert
{} \lbrace, \rbrace
```

Extensors: \left, \right, \big, \Big, \bigg, \Bigg.

Frequently used symbols

\cdots	\ldots	\ddots	\vdots
\leq	\geq	\neq	\approx
\partial	\partial	\sim	\sim

Other symbols

\times	\div	\pm	\cdot
\circ	\circ	\circ	\prime
\infty	\neg	\wedge	\vee
\supset	\forall	\in	\rightarrow
\subset	\exists	\notin	\Rightarrow
\cup	\cap	\mid	\Leftrightarrow
\dot{a}	\hat{a}	\bar{a}	\tilde{a}

Greek characters

\alpha	H _{\eta}	\eta	N _{\nu}	\nu	T _{\tau}	\tau
B\beta	\theta\theta	\theta	\Xi	\xi	Y _{\upsilon}	\upsilon
\gamma	I _{\iota}	\iota	O _{\o}	\o	\phi\varphi	\phi
\delta	K _{\kappa}	\kappa	\Pi\pi\varpi	\pi	X _{\chi}	\chi
E\epsilon	\epsilon	\epsilon	P\varrho\rho	\rho	\Psi\psi	\psi
Z\zeta	M\mu	\mu	\Sigma\sigma	\sigma	\Omega\omega	\omega

Other maths constructs

```
[ 0 1 ] \mat{0&1\\2&3}
[ 0 1 ]
[ 2 3 ] \matc{0&1\\2&3}
\sum_i^n \sum_{i=1}^n
\sum_i^n \sideset{}{_{i=1}^n}\sum
```

Formatting

Text environments

```
\begin{comment} Comment block (not printed).
\marginpar{comment} Comments on margin.
```

Lists

```
\begin{itemize} Bulleted list.
\begin{compactitem} Bulleted list (compact).
\begin{enumerate} Numbered list.
\begin{compactenum} Numbered list (compact).
\begin{description} Bold word heading.
\begin{compactdesc} Bold word heading (compact).
\item[x] text Use x instead. Also required for descriptions. [i)] can be used with enum to generate roman chars.
```

References

```
\ref{marker} Reference marker.
\eqref{marker} Reference marker parenthesized.
\pageref{marker} Give page number of marker.
```

Fonts

\textrm, \rmfamily	Normal (roman) incl. math
\textit, \itshape	<i>Italicized</i> - italic
\emph, \em	<i>Italicized</i> - emph
\textsl, \slshape	<i>Italicized</i> - slanted
\textsf, \sffamily	Normal (serif) incl. math
\textbf, \bfseries	Bold with \textbf - math only
\bm	Bold with bm - math only
\mathcal	\mathcal{R} - math mode (incl. \bm)
\mathbb	\mathbb{R} - math mode

Font size

\tiny	tiny	\Large	Large
\scriptsize	scriptsize	\LARGE	LARGE
\footnotesize	footnotesize		
\small	small	\huge	huge
\normalsize	normalsize		
\large	large	\Huge	Huge

Verbatim text

```
\shortvrb package to import
\MakeShortVerb{} preamble command
|text| using it in text
```

Justification

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

Miscellaneous

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

Text-mode symbols

Symbols

\&	\-	_	\ldots	\dots	\bullet	\textbullet
\\$	\\$	\^{\circ}	\	\textbar	\backslash	\textbackslash
\%	\%	\^{\circ}	\#	\#	\S	\S

Accents

\`o	\`o	\`o	\`o	\`o	\`o
\`o	\`o	\`o	\`o	\`o	\`o
\`c	\`c	\`d	\`o	\`o	\`oe
\OE	\OE	\ae	\AE	\aa	\AA
\`o	\`o	\`o	\`l	\`L	\`i
\`j	i	\`i	\`i	\`i	\`i

Delimiters

```
‘ ‘ ‘ ‘ { { [ [ ( ( < \textless
‘ ‘ ‘ ‘ } } ] ] ) ) > \textgreater
```

Dashes

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

Tabular environments

tabular environment

Remember to load the `array` package if using tables

```
\begin{tabular}[pos]{cols}
\begin{tabular*}[width][pos]{cols}
```

tabular column specification

l	Left-justified column.
c	Centered column.
r	Right-justified column.
p{width}	Same as \parbox[t]{width}.
@{decl}	Insert <i>decl</i> instead of inter-column space.
	Inserts a vertical line between columns.

tabular elements

\hline	Horizontal line between rows.
\cline{x-y}	Horizontal line across columns x through y.
\multicolumn{n}{cols}{text}	A cell that spans n columns, with cols column specification.

Citation formatting

Author-number	Author-date
\cite{} [23]	Zhu et al. (2007)
\citep{} [23]	(Zhu et al., 2007)
\citet{} Zhu et al. [23]	Zhu et al. (2007)
\citeauthor{} Zhu, Ka, and Ko	Zhu, Ka, and Ko
\citeyear{} 2007	2007

Use \usepackage[numbers]{natbib} for Author-number, and \usepackage[natbib]{natbib} for Author-date.

Sample L^AT_EX document

```
\documentclass[11pt]{article}\usepackage{fullpage}
\title{Template} \author{Name}\begin{document}
\maketitle \section{section}\subsection{*{w/o number}}
Text \textbf{bold text}, math $2+2=5$ \end{document}
```

Capitalisation of titles

Do not capitalise iff:

- articles a, an, the
- infinitive to
- proposition/conjunction of <5 letters to, and, from, when, for
- 2nd word in hyphenation "Make-up"

Exceptions:

- neither of them Is, About, Under, Only, Up
- last/first word "For the Method"
- after <;> or <:> "Truth: A Theory"
- after the letter or "From Him or For Us"
- 2nd word in hyphenated word (only if it's a noun) "Looking-Glass"

Original: [http://www.stdout.org/\\$sim\\$winston/latex/](http://www.stdout.org/simwinston/latex/)