\LaTeX{} Command Summary

This listing contains short descriptions of the control sequences that are likely to be handy for users of \LaTeX{} v2.09 layered on \TeX{} v2.0. Some of these commands are \LaTeX{} macros, while others belong to plain \TeX{}; no attempt to differentiate them is made.

\texttt{\\u — ordinary space after period.}
\texttt{\\! — negative thin space = $-\frac{1}{6}$ quad;}
\texttt{xx\\!x yields xxx (math mode).}
\texttt{" makes an umlaut, as ö.}
\texttt{\# prints a pound sign: #.}
\texttt{\$ prints a dollar sign: $.}
\texttt{\% prints a percent sign: %.}
\texttt{\& prints an ampersand: &.}
\texttt{\texttt{\textbackslash} in \texttt{tabbing} environment moves current column to the right of the previous column. Elsewhere, acute accent, as à.}
\texttt{\texttt{\{ — start math mode. Same as \texttt{\begin{math}} or \$.}
\texttt{\texttt{\} — end math mode. Same as \texttt{\end{math}} or \$.}
\texttt{\texttt{* is a discretionary multiplication sign, at which a line break is allowed.}
\texttt{\texttt{+ moves left margin to the right by one tab stop. Begin tabbed line.}
\texttt{\texttt{, — thin space = $\frac{1}{6}$ quad; xx\\,x yields xxx. It is not restricted to math mode.}
\texttt{\texttt{- in \texttt{tabbing} environment, moves left margin to the left by one tab stop. Elsewhere, optional hyphenation.}
\texttt{\texttt{. puts a dot accent over a letter, as ó.}
\texttt{\texttt{/ inserts italics adjustment space.}
\texttt{\texttt{:\ — medium space = $\frac{2}{9}$ quad; xx\\:x yields xx x (math mode).}
\texttt{\texttt{; — thick space = $\frac{5}{9}$ quad; xx\\;x yields xx x (math mode).}
\texttt{\texttt{< in \texttt{tabbing} environment, puts text to left of local left margin.}
\texttt{\texttt{=} in \texttt{tabbing} environment, sets a tab stop. Elsewhere, makes a macron accent, as ò.}
\texttt{\texttt{> in \texttt{tabbing} environment is a forward tab. Otherwise, medium space = $\frac{2}{9}$ quad (math mode).}
\texttt{\texttt{@ declares the period that follows is to be a sentence-ending period.}
\texttt{\texttt{\texttt{\{ — same as \texttt{\begin{displaymath}}} or \$.}
\texttt{\texttt{\texttt{\textbackslash}} terminates a line, but disallows a pagebreak.}
\texttt{\texttt{\}} — same as \texttt{\end{displaymath}} or \$.}
\texttt{\texttt{" makes a circumflex, as ô.}
\texttt{\texttt{\_ is an underscore, as in \texttt{hours\_worked}.}
\texttt{\texttt{\textbackslash} in \texttt{tabbing} environment moves all text which follows (up to \texttt{\}}) to the right margin. Elsewhere, grave accent, as ò.}
\texttt{\texttt{\textbackslash} prints a curly left brace: \{.}
\texttt{\texttt{\textbackslash} is \| (math mode).}
\texttt{\texttt{\textbackslash} prints a curly right brace: \}.}
\texttt{\texttt{\textbackslash} makes a tilde, as ñ.}
\texttt{\texttt{a’ makes an acute accent in \texttt{tabbing} environment, as á.}
\texttt{\texttt{a’ makes a grave accent in \texttt{tabbing} environment, as á.}
\texttt{\texttt{ae= makes a macron accent in \texttt{tabbing} environment, as ò.}
\texttt{\texttt{aa is à. \texttt{\textbackslash}A is Á.}
\texttt{\texttt{acute makes an acute accent: á (math mode).}
\texttt{\texttt{addcontentsline\{toc\}\{section\}\{name\} adds the command \texttt{\contentsline{section}{name}} to the .toc file.}
\texttt{\texttt{address\{text\} declares the return address in the \texttt{letter} document style.}
\texttt{\texttt{addtocontents\{toc\}\{text\} writes text to the .toc file.}
\texttt{\texttt{addtocounter\{name\}\{amount\} adds \texttt{amount} to \texttt{name}.}
\texttt{\texttt{addtolength\{\texttt{\textbackslash}n\}\{length\} adds \texttt{length} to \texttt{\textbackslash}n length command \texttt{\textbackslash}n. See also \texttt{setlength}, \texttt{\newlength}, \texttt{\settowidth}.}
\texttt{\texttt{\texttt{\textbackslash}ae is æ. \texttt{\textbackslash}AE is Æ.}
\texttt{\texttt{aleph is \texttt{\textbackslash}aleph \mathbb{N} (math mode).}
\texttt{\texttt{alph\{counter\} prints \texttt{counter} as lower-case letters. \texttt{Alph\{counter\} prints upper-case letters.}
\texttt{\texttt{\textbackslash}alpha is \texttt{\textbackslash}alpha \texttt{\mathbb{\alpha}} (math mode).}
\texttt{\texttt{\textbackslash}amalg is \texttt{\textbackslash}amalg \texttt{\mathbb{\Pi}} (math mode).}
\texttt{\texttt{\textbackslash}and separates multiple authors for the \texttt{\maketitle} command.}
\texttt{\texttt{\textbackslash}angle is \texttt{\textbackslash}angle \texttt{\mathbb{\angle}} (math mode).}
\texttt{\texttt{\texttt{\textbackslash}appendix starts appendices.}
\texttt{\texttt{\texttt{\textbackslash}approx is \texttt{\textbackslash}approx \texttt{\mathbb{\approx}} (math mode).}
\texttt{\texttt{\texttt{\texttt{arabic\{counter\} prints \texttt{counter} as arabic numerals 1, 2, etc.}
\texttt{\texttt{\texttt{\textbackslash}arccos is \texttt{\textbackslash}arccos \texttt{\mathbb{\arccos}} (math mode).}
\texttt{\texttt{\texttt{\texttt{\texttt{\texttt{arcsin is \texttt{\textbackslash}arcsin \mathbb{\arcsin}} (math mode).}}}
\arctan is arctan (math mode).
\arg is arg (math mode).
\arraycolsep — width of the space between columns in an array environment.
\arrayrulewidth — width of the rule created in \texttt{tabular} or array environment by \texttt{\hline}, or \texttt{\vline}.
\arraystretch — scale factor for interrow spacing in array and \texttt{tabular} environments.
\ast is \texttt{*} (math mode).
\asymp is \texttt{$\asymp$} (math mode).
author\{names\} declares author(s) for the \texttt{\maketitle} command.
\b is a “bar-under” accent, as \texttt{q}.
\backslash is \texttt{\} (math mode).
\bar puts a macron over a letter: \texttt{$\bar{a}$} (math mode).
\baselineskip — distance from bottom of one line of a paragraph to bottom of the next line.
\lineskip — factor by which \texttt{\baselineskip} is multiplied each time a type size changing command is executed.
\begin\{environment\} — always paired with \texttt{\end{environment}}. Following are the assorted environments.
\begin{abstract} starts an environment for producing an abstract.
\begin{array}\{1rc\} starts array environment with 3 columns, left-justified, right-justified, and centered. Separate columns with \texttt{&}, and end lines with \texttt{\ \}. \texttt{\@\{text\}} between 1, r or c arguments puts \texttt{text} between columns.
\begin{center} starts an environment in which every line is centered. End lines with \texttt{\ \}.
\begin{description} starts a labeled list. Items are indicated by \texttt{\item\{label\}}.
\begin{displaymath} sets mathematics on lines of its own. Same as \texttt{\[} or \texttt{\$}.
\begin{document} starts the actual text of a document. Required.
\begin{enumerate} starts a numbered list.
\begin{eqnarray} \begin{array} starts a \texttt{displaymath} environment in which more than one equation can be accommodated. Separate equations with \texttt{\ \} or \texttt{\ \}; use \texttt{\nonumber} to suppress numbering a particular equation.
\begin{eqnarray*} \begin{array} begins an environment like the \texttt{eqnarray} environment except that the equations aren’t numbered.
\begin{equation} \begin{array} starts a \texttt{displaymath} environment and adds an equation number.
\begin{figure}[pos] begins a floating environment, which may be optionally placed at \texttt{pos} (see \texttt{positions} on page \texttt{??}). Document styles \texttt{report} and \texttt{article} use the default \texttt{tbp}.
\begin{figure*}[pos] begins a two-column-wide figure. See \texttt{\begin{figure}}.
\begin{flushleft} begins environment with ragged right-hand margin. Separate lines with \texttt{\}}. See \texttt{\raggedright}.
\begin{flushright} begins environment with ragged left-hand margin. Separate lines with \texttt{\}}. See \texttt{\raggedleft}.
\begin{itemize} starts a “bulleted” \texttt{(*)} list. Start each item with \texttt{\item}.
\begin{list}\{label\}\{spacing\} starts a general list environment. \texttt{labeling} specifies how items are labeled when \texttt{\item} has no argument. \texttt{spacing} is an optional list of spacing parameters.
\begin{math} starts a math display like this: \[ x^2 + y^2, \] within text. Same as \texttt{\$} or \texttt{\$}.
\begin{minipage}[pos]\{vsize\} starts a box of height \texttt{vsize}. Text will be positioned according to \texttt{pos} (see \texttt{positions} on page \texttt{??}).
\begin{picture}\{x, y\}|\{(x, y)\} starts a picture environment whose width is \texttt{x} units, height is \texttt{y} units, and lower-left corner is the point \texttt{(x, y)}.
Set units with \texttt{\unitlength}.
\begin{quotation} starts an environment with wider margins, normal paragraph indenting, and offset from the text at top and bottom.
\begin{quote} starts an environment with wider margins, no paragraph indenting, and offset from the text at top and bottom.
\begin{tabbing} starts a columnar environment. Use commands \texttt{\= (set tab)}, \texttt{\> (tab)}, \texttt{\< (backtab)}, \texttt{\+ (indent one tab stop)}, \texttt{\- (outdent one tab stop)}, \texttt{\'} (flush right), \texttt{\'} (flush left), \texttt{\pushtabs}, \texttt{\poptabs}, \texttt{\kil}, \texttt{\}. \begin{table}[pos] begins a floating environment, which may be optionally placed at \texttt{pos} (see \texttt{positions} on page \texttt{??}). Document styles \texttt{report} and \texttt{article} use the default \texttt{tbp}.
\begin{table*}[pos] begins a two-column-wide table. See \texttt{\begin{table}}.
\begin{tabular}\{arg\} begins an array environment which can be used in or out of math mode. \texttt{arg} contains column text positioning commands \texttt{r, l, c, @\{\ldots\}}, \texttt{p\{length\}} (see \texttt{positions} on page \texttt{??}). \texttt{\}} produces vertical line between columns. \texttt{\*\{7\}}\{\texttt{r\{1\}\}} repeats that entry 7 times.
\begin{theorem} — see \newtheorem.
\begin{titlepage} is an environment with no
page number, and causes following page to be
numbered \"1\".
\begin{verbatim} starts an environment which
will be typeset exactly as you type it, carriage
returns and all, usually in \texttt{typewriter} font.
\begin{verse} starts an environment for poetry
with wider margins, no paragraph indenting,
and ragged right margin.
\beta is $\beta$ (math mode).
\bf switches to \textbf{bold face} type.
\bibitem[ref] text creates a bibliography entry
text, numbers it, and labels it with reference
label ref.
\bibliography{file} — insert bibliography
from file name.bib at this point in text.
\bibliographystyle{style} — a format
specifier, like \texttt{documentstyle}.
\bigcap is $\cap$ (math mode).
\bigcirc is $\bigcirc$ (math mode).
\bigcup is $\bigcup$ (math mode).
\bigodot is $\bigodot$ (math mode).
\bigoplus is $\bigoplus$ (math mode).
\bigotimes is $\bigotimes$ (math mode).
\bigtriangleup is $\bigtriangleup$ (math mode).
\bigtriangledown is $\bigtriangledown$ (math mode).
\bigskip — standard \texttt{big} \texttt{vertical skip}.
\bigskipamount — default length for \texttt{bigskip}.
\bigsetminus is $\bigsetminus$ (math mode).
\bigvee is $\bigvee$ (math mode).
\bigwedge is $\bigwedge$ (math mode).
\bmod is binary modulo expression $a \bmod m$
(math mode).
\boldmath changes math italics and math
symbols to \textit{boldface}. Should be used \textit{outside} of
math mode.
\bot is $\bot$ (math mode).
\bottomfraction — maximum fraction of page
occupied by floats at the bottom.
\bowtie is $\bowtie$ (math mode).
\Box is $\Box$ (math mode).
\breve makes a breve accent: $\breve{a}$ (math mode).
\bullet is $\bullet$ (math mode).
\c is a cedilla, as ç.
\cal produces calligraphic letters, as \textit{B} (math
mode).
\cap is $\cap$ (math mode).
\caption[loftitle]{text} creates a numbered
caption in a \texttt{figure} or \texttt{table} environment.
Optional \texttt{loftitle} contains entry for the list of
figures if different from \texttt{text}.
\cc{text} declares list of copy recipients for
letter document style.
\cdot is \texttt{\textbullet} (math mode).
\cdots makes three dots centered on the line: \ldots
(cf. \texttt{\ldots}) (math mode).
\centering declares that all text following is to
be centered (cf. \begin{center}).
\chapter[toctitle]{text} begins a new
section, automatically headed and numbered.
Optional \texttt{toctitle} contains entry for the table
of contents if different from \texttt{text}.
\chapter*[title] is like \chapter{title}, but
adds no chapter number or table of contents
entry.
\check makes a hácek, as $\check{a}$ (math mode).
\chi is $\chi$ (math mode).
\circ is $\circ$ (math mode).
\circlearrowleft as a valid argument for \put
in a \texttt{picture} environment, draws a circle.
\circlearrowright is like \texttt{\circle}, but draws
a solid circle.
\cite[subcit]{ref} produces a reference, in
square brackets, to a bibliographic item created
with \bibitem{ref}. Optional sub-citation
\texttt{subcit} can be inserted in the entry.
\cleardoublepage forces next page to be a
right-hand, odd-numbered page.
\clearpage ends a page where it is, and puts
pending figures or tables on separate float
pages with no text.
\cline{i-j} draws a horizontal line across
columns \texttt{i} through \texttt{j} inclusive in \texttt{array} or
\texttt{tabular} environments.
\closing{text} declares the closing in \texttt{letter}
document style.
\clubsuit is $\clubsuit$ (math mode).
\columnsep — distance between columns in
\texttt{two-column} text.
\columnseprule — width of the rule between
columns on two-column pages.
\columnwidth — width of the current column.
Equals \texttt{textwidth} in single-column text.
\ cong is $\cong$ (math mode).
\coprod is $\coprod$ (math mode).
\copyright is ©.
\cos is \cos (math mode).
\cosh is \cosh (math mode).
\cot is \cot (math mode).
\coth is \coth (math mode).
\csc is \csc (math mode).
\cup is \cup (math mode).
\d is a “dot under” accent, as \check.
\dag is †.
\dagger is † (math mode).
\dashbox{dwidth}{width, height}[pos]{text} creates a dashed rectangle around text in a picture environment. Dashes are dwidth units wide; dimensions of rectangle are width and height; text is positioned at optional pos (see positions on page ??).
\dashv is \rightarrow (math mode).
\date{a date} declares the date for the \maketitle command. The default is \today.
\day — current day of the month.
\dblfloatpagefraction — minimum fraction of a float page that must be occupied by floats, for two-column float pages.
\dblfloatsep — distance between floats at the top or bottom of a two-column float page.
\dbltextfloatsep — distance between double-width floats at the top or bottom of a two-column page and the text on that page.
\dblexfraction — maximum fraction at the top of a two-column page that may be occupied by floats.
\ddag is ‡.
\dagger is † (math mode).
\ddot makes a dieresis over a letter: \ddot{a} (math mode).
\ddots produces a diagonal ellipsis \cdots (math mode).
\deg is \deg (math mode).
\delta is \delta. \Delta is \Delta (math mode).
\det is \det (math mode).
\diamond is \diamond. \Diamond is \Diamond (both math mode).
\diamondsuit is \diamondsuit (math mode).
\dim is \dim (math mode).
\displaystyle switches to displaymath or equation environment typesetting (math mode).
\div is \div (math mode).
\documentstyle{substyl}{sty} determines default font, headings, etc., for document of style sty (and optional subtitle substy).
\dot makes a dot over a letter: \dot{a} (math mode).
\doteq is \doteq (math mode).
\dotfill expands to fill horizontal space with row of dots.
\doublestrutsep — horizontal distance between vertical rules created by \| in tabular or array environment.
\downarrow is \downarrow. \Downarrow is \Downarrow (math mode).
\ell is \ell (math mode).
\em toggles between roman and italic fonts for emphasis.
\emptyset is \emptyset (math mode).
\enl{text} declares a list of enclosures for letter document style.
\end{environment} ends an environment begun by \begin{environment} (q.v.).
\epsilon is \epsilon (math mode).
\equiv is \equiv (math mode).
\eta is \eta (math mode).
\evensidemargin — distance between left side of page and text’s normal left margin, for even-numbered pages in two-sided printing.
\exists is \exists (math mode).
\exp is \exp (math mode).
\fbox{text} makes a framed box around text.
\fboxrule — thickness of ruled frame for \fbox and \framebox.
\fboxsep — space between frame and text for \fbox and \framebox.
\fill — rubber length (glue) that can stretch to arbitrary length. Usually used to justify text a particular way.
\flat is b (math mode).
\floatpagefraction — minimum fraction of a float page occupied by floats.
\floatsep — distance between floats that appear at the top or bottom of a text page.
\flushbottom causes pages to be stretched to \textwidth.
\fnsymbol{counter} prints counter as one of the set of “footnote symbols”. counter must be less than 10.
\footnotesep — vertical distance between bottom of head and top of text.
\headsep — vertical distance between bottom of page that holds running head.
\headsep — vertical distance between bottom of page that holds page number.
\footnotetext{text} creates a footnote of text.
\footnotemark puts a footnote number into the text.
\footnote{text} creates a footnote of text.
\footnotesep — height of strut placed at beginning of footnote.
\footnotesize switches to footnote-sized type.
\footnotemark — vertical distance between bottom of last line of text and bottom of page footing.
\footnotetext{text} specifies the text for a footnote which was indicated by a \footnotemark.
\for is \forall (math mode).
\frac{numerator}{denominator} produces a fraction in math environments.
\frame{text} makes a framed (outlined) box around text, with no margin between the text and the frame.
\framebox[size][pos]{text} produces a framed box of dimension size containing text, optionally positioned 1 or r. In picture environment, \framebox{width, height}{pos}{text} creates a rectangle around text; dimensions of rectangle are width and height; text is positioned at optional pos (see positions on page ??).
\frown is \sim (math mode).
\fussy is the default declaration for the line-breaking algorithm (cf. \sloppy).
\gamma is \gamma. \Gamma is \Gamma (math mode).
\gcd is \gcd (math mode).
\ge is \geq (math mode).
\geq is \geq (math mode).
\gets is \gets (math mode).
\gg is \gg (math mode).
\glsbox{wordlist} declares hyphenation as indicated; wordlist contains words separated by spaces, with hyphens indicated (e.g. “aard-vark cal-i-bra-tion”).
\i is i.
\iff is \iff (math mode).
\im is \Im (math mode).
\imath is \i (math mode).
\in is \in (math mode).
\include{filename} brings in \text{filename} at that point.
\includeonly{file1, file2, ...} limits recognition of \include files.
\index{text} appends text to the .idx file by writing a \indexentry command.
\indexentry{text}{ref} is written to the .idx file for \index{text} occurring at reference ref.
\indexspace puts blank space before first index entry starting with a new letter.
\infty is \infty (math mode).
\input{file} brings in text from file.tex at that point.
\int is \int (math mode).
\intertext{ — vertical space placed above and below text in middle of text.
\iota is \iota (math mode).
\it switches to Italic type.
\item[\text{text}] indicates a list entry. text is optional, used in description environment.
\itemindent — extra indentation before label in list item. Default is 0mm.
\itemsep — vertical space between successive list items.
\j is j.
\jmath is j (math mode).
\Join is \infty (math mode).
\kappa is \kappa (math mode).
\ker is \text{ker} (math mode).
\kill — in a \texttt{tabbing} environment, deletes previous line so tabs can be set without outputting text.
\l is L. \L is L.
\label{text} provides a reference point that is accessed with \texttt{\ref{text}} or \texttt{\pageref{text}}.
\labelwidth — width of box containing list item label.
\labelsep — space between box containing list item label and text of the item.
\lambda is \lambda. \text{\Lambda} is \Lambda (math mode).
\land is \land (math mode).
\langle is \langle (math mode).
\large, \texttt{\Large}, and \texttt{\LARGE} switch to successively larger than \texttt{\normalsize} type sizes.
\LaTeX produces the \LaTeX logo.
\lbrace is \{ (math mode).
\rbrace is \} (math mode).
\lceil is \lceil (math mode).
\ldots makes three dots at the base of the line: \ldots (cf. \texttt{\cdots}).
\le is \le (math mode).
\leqno is \Leftrightarrow (math mode).
\left is \left (math mode).
\left* (where * is a delimiter) must be paired with \texttt{\right*} (not necessarily using the same delimiter). \texttt{\textbackslash} acts as a null delimiter (math mode).
\leftarrow is \leftarrow (math mode).
\lefteqn{formula} is used in the \texttt{eqnarray} environment to break a long formula across lines.
\leftharpoonup is \leftarrow (math mode).
\leftharpoonup{left} margin in \texttt{list} environment, horizontal distance between left margin of enclosing environment and left margin of list. Settable for nesting levels 1 through 6, as \texttt{\leftmargini} through \texttt{\leftmarginvi}.
\leftrightharpoons is \leftrightarrow. \texttt{\leftrightharpoons} is \Leftrightarrow (math mode).
\leq is \leq (math mode).
\lfloor is \lfloor (math mode).
\lg is \text{lg} (math mode).
\lhd is \lhd (math mode).
\lim is \text{lim} (math mode).
\liminf is \text{lim inf} (math mode).
\limsup is \text{lim sup} (math mode).
\line(x, y)\{len\} in \texttt{picture} environment, in \texttt{\put} command, draws line from \texttt{\put} argument with length \texttt{len} and slope \texttt{(x, y)}.
\linebreak[n] forces a line to break exactly at this point, and adjusts line just terminated (cf. \texttt{\newline}). \texttt{n} is optional: 0 is an optional break, 4 is a mandatory break, 1, 2 and 3 are intermediate levels of insistence.
\linethickness{dimen} sets the thickness for all lines in a picture.
\linewidth is the width of the current line in a paragraph.
\listoffigures begins a list of figures with heading.
\listoftables begins a list of tables with heading.
\listparindent — extra indentation added to first line of every paragraph of an item after the first, in \texttt{list} environment.
\ll is \ll (math mode).
\ln is \ln (math mode).
\lnot is \lnot (math mode).
\log is \log (math mode).
\log is \log (math mode).
\longleftarrow is \longleftarrow (math mode).
\longleftrightharpoons is \leftrightarrow (math mode).
\longmapsto is \longmapsto (math mode).
\longmapsto is \longmapsto (math mode).
\longmapsto is \longmapsto (math mode).
\lor is \lor (math mode).
\lop is \lop (math mode).
\makebox[size][pos]{text} creates a box of dimension \texttt{size} containing \texttt{text} at optional pos. \makebox[width, height]{pos}{text} puts \texttt{text} in a box; dimensions of box are width and height; \texttt{text} is positioned at optional pos (see \texttt{\textbackslash positions} on page ??).
\makelabel enables writing of \glossaryentry commands to a .\texttt{.glo} file.
\newcommand{\counter}[\name]{\def\name\counter\name\counter\name\name}
defines a counter optionally to be zeroed whenever the name counter is incremented.
\newenvironment{envname}[\narg]{\def\name\def\def\def\name}{\def\name\def\def\def\name}
defines a new environment, optionally with some number of arguments \narg, \def1 is executed when the environment in entered and \def2 is executed when it is exited.
\newfont{cs}{\name}\defines a control sequence \cs that chooses the font \name.
\newlength{\nl} sets up \nl as a length of 0in. See also \setlength, \addtolength, \settowidth.
\newline breaks a line right where it is, with no stretching of terminated line (cf. \linebreak).
\newpage ends a page where it appears. (cf. \clearpage).
\newsavebox{\binname} declares a new bin to hold a \savebox.
\newtheorem{env}[\env2]{\label}{\sectyp}
defines a new theorem environment \env (optionally with the same numbering scheme as environment \env2) with labels \label.
Optionally, theorem numbers can be related to document section \sectyp.
\ni is \ni (math mode).
\nofiles suppresses writing of auxiliary files .idx, .toc, etc.
\noindent suppresses indentation of first line of paragraph.
\nolinebreak[n] prevents a line break at that point (cf. \linebreak on page ??).
\nonumber is used in an \align array environment to suppress equation numbering.
\nopagebreak[n] prevents a page break at that point (cf. \linebreak on page ??).
\normalmarginpar is default declaration for placement of marginal notes (cf.
\reversemarginpar).
\normalsize is the default type size for the document.
\not puts a slash through a relational operator: \not= is \not (math mode).
\notin is \notin (math mode).
\nu is \nu (math mode).
\narrow is \narrow (math mode).
\ntimes is \ntimes (math mode).
\obeycr makes embedded carriage returns act like line terminators.
\texttt{\textbackslash oddsidemargin} — distance between left side of page and text’s normal left margin.
\texttt{\textbackslash dot} is ⋄ (math mode).
\texttt{\textbackslash oo} is ⋆ (math mode).
\texttt{\textbackslash point} is ⋄ (math mode).
\texttt{\textbackslash omega} is ω. \texttt{\textbackslash Omega} is Ω (math mode).
\texttt{\textbackslash minus} is ⊖ (math mode).
\texttt{\textbackslash onecolumn} sets text in single column (default) (cf. \texttt{\textbackslash twocolumn}.
\texttt{\textbackslash opening\{text\}} declares an opening for letter document style.
\texttt{\textbackslash opplus} is ⊖ (math mode).
\texttt{\textbackslash oslash} is ⊖ (math mode).
\texttt{\textbackslash otimes} is ⊖ (math mode).
\texttt{\textbackslash oval\{x,y\}} as an argument to \texttt{\textbackslash put} draws an oval x units wide and y units high.
\texttt{\textbackslash overbrace\{text\}} gives \overline{text} (math mode).
\texttt{\textbackslash overline\{text\}} gives \overline{text} (math mode).
\texttt{\textbackslash owns} is ⊖ (math mode).
\texttt{\textbackslash P} is ¶.
\texttt{\textbackslash pagebreak\{n\}} forces a page break at that point (cf. \texttt{\textbackslash linebreak} on page ??).
\texttt{\textbackslash pagenum\{style\}} determines page number style; \texttt{style} may be \texttt{arabic} (3), \texttt{roman} (ii), \texttt{Roman} (III), \texttt{alph} (c), \texttt{Alph} (C).
\texttt{\textbackslash pageref\{text\}} is the page number on which \texttt{\label\{text\}} occurs.
\texttt{\textbackslash pagemark\{style\}} determines characteristics of a page’s head and foot. \texttt{style} may be \texttt{plain} (page number only), \texttt{empty} (no page number), \texttt{headings} (running headings on each page), \texttt{myheadings} (user headings).
\texttt{\textbackslash paragraph\{toc\{title\}\{text\}} begins a new paragraph, automatically headed and numbered. Optional \texttt{toc\{title\}} contains entry for the table of contents if different from \texttt{text}.
\texttt{\textbackslash paragraph\{text\}} begins a paragraph and prints a title, but doesn’t include a number or make a table of contents entry.
\texttt{\textbackslash parallel} is || (math mode).
\texttt{\textbackslash parbox\{pos\{size\}\{text\}}} is a box created in paragraph mode. \texttt{pos} is positioned optionally at \texttt{pos} (see \texttt{positions} on page ??). Width is \texttt{size}.
\texttt{\textbackslash parindent} — horizontal indentation added at beginning of paragraph.
\texttt{\textbackslash parsep} — extra vertical space between paragraphs within a list item.
\texttt{\textbackslash parsep} — extra vertical space between paragraphs, normally.
\texttt{\textbackslash part\{toc\{title\}\{text\}}} begins a new part, automatically headed and numbered. Optional \texttt{toc\{title\}} contains entry for the table of contents if different from \texttt{text}.
\texttt{\textbackslash part\{text\}} begins a part and prints a title, but doesn’t include a number or make a table of contents entry.
\texttt{\textbackslash partial} is ◻ (math mode).
\texttt{\textbackslash partopsep} — extra vertical space added before first list item if environment starts a new paragraph.
\texttt{\textbackslash perp} is ⊥ (math mode).
\texttt{\textbackslash phi} is φ. \texttt{\Phi} is Φ (math mode).
\texttt{\textbackslash pi} is π. \texttt{\Pi} is Π (math mode).
\texttt{\textbackslash pm} is ± (math mode).
\texttt{\textbackslash pmod\{modulus\}} is “parenthesized” modulo expression \texttt{u (mod 2^j - 1)} (math mode).
\texttt{\textbackslash poptabs} undoes the previous \texttt{\push\{tabs\}} command (restore prior tab settings).
\texttt{\textbackslash positions, for boxing commands: t=top, b=bottom, h=here, l=left, c=center, r=right, p=new page (figure environment), p=parbox (tabular environment).}
\texttt{\textbackslash pounds} is £.
\texttt{\textbackslash Pr} is Pr (math mode).
\texttt{\textbackslash prec} is ≪ (math mode).
\texttt{\textbackslash preceq} is ≪= (math mode).
\texttt{\textbackslash prime} is ′ (math mode).
\texttt{\textbackslash prod} is Π (math mode).
\texttt{\textbackslash propto} is ∝ (math mode).
\texttt{\textbackslash protect} permits the use of “dangerous” commands in \emph{O}-expressions, or in sectioning command and \texttt{\caption} arguments.
\texttt{\textbackslash ps in letter} document style permits additional text after \texttt{\closing}.
\texttt{\textbackslash psi} is ψ. \texttt{\Psi} is Ψ (math mode).
\texttt{\textbackslash push\{tabs\}} in tabbing environment lets you stack tab stop definitions. Undo with \texttt{\pop\{tabs\}}.
\texttt{\texttt{\textbackslash put\{x,y\}\{stuff\}}} is the basic picture-drawing command. \texttt{\{x,y\}} is the \texttt{reference point}, whose meaning varies for different \texttt{stuff}. \texttt{stuff} may be anything that goes in an \texttt{\mbox}.
\texttt{\textbackslash raggedbottom} causes pages to assume natural height.
\texttt{\textbackslash raggedright} declares all text that follows is to be flush against the right margin (cf. \texttt{\begin\{flushright\}}).
\raggedright declares all text that follows is to
be flush against the left margin (cf.
\begin{flushleft}).
\raisebox{dim}[d2][d3]{text} moves text up
by dim (which may be negative). Optional d2
makes system think that text extends d2 above
the baseline (and optionally d3 below it).
\rarrow is } (math mode).
\rbrace is } (math mode).
\rceil is ] (math mode).
\rc is \setminus (math mode).
\ref{text} is the section number in which
\label{text} occurs.
\renewcommand{\cs}{narg}{def} redefines an
existing control sequence \cs with definition
\def. Optionally, narg is the number of
arguments, indicated in \def as \#1, \#2, etc.
\renewenvironment{environ}{narg}{def1}{def2}
redefines an existing environment. See
\newenvironment.
\restorecr undoes the \obeycr command
(makes carriage return a space-producing
character).
\reversemarginpar causes opposite margin to be
used for marginal notes (e.g., left margin on
odd-numbered pages).
\rfloor is ] (math mode).
\rhd is \triangleright (math mode).
\rho is \rho (math mode).
\right* (where * is a delimiter) must be paired
with \left* (not necessarily using the same
delimiter). \textquoteleft acts as a null delimiter (math
mode).
\rightarrow is \rightarrow. \Rightarrow is \Rightarrow (math
mode).
\rightharpoonup is \rightarrow. \rightharpoonup is \rightarrow (math
mode).
\rightharpoondown is \rightarrow. \rightharpoondown is \rightarrow (math
mode).
\rightleftharpoons is \rightleftharpoons (math mode).
\rightmargin — in \texttt{list} environment, horizontal
distance between right margin of enclosing
environment and right margin of list. Default
0in.
\rm switches to Roman type.
\roman{counter} prints counter in lower-case
roman numerals. \texttt{\Roman{counter}} prints
upper-case roman numerals.
\rq is a right-quote: ‘.
\rule[height]{length}{width} makes a
rectangular blob of ink length long, width
wide, with optional height above baseline.
\S is §.
\savebox{\biname}{width}[pos]{text} is
exactly like \makebox (q.v.), but saves box
definition in bin \biname. Access with
\usebox{\biname}.
\sbox{\biname}{text} saves text in box
\biname (see \savebox, above).
\sc switches to caps and small caps font.
\scriptsize switches subscript size type.
\scriptstyle switches to sub- or
superscript-sized typesetting.
\scriptscriptstyle switches to second-level
(very small) sub- or superscript-sized
typesetting (math mode).
\searrow is \searrow (math mode).
\sec is \sec (math mode).
\section[toctitle]{text} begins a new
section, automatically headed and numbered.
Optional toctitle contains entry for the table
of contents if different from \text.
\section*{text} begins a section, prints a title,
but doesn’t include a number or make a table
of contents entry.
\setcounter{counter}{value} resets the value
of counter.
\setlength{\textwidth}{length} sets value of length
command \textwidth to length. See also
\addtolength, \newlength, \setwidth.
\setminus is \setminus (math mode).
\setlength{\textwidth}{length}[text] sets value of length
command \textwidth to the width of text. See also
\setlength, \newlength, \addtolength.
\sh overline switches to sans serif font.
\sharp is \# (math mode).
\shortstack[pos]{x\y\z}
yields z, a
one-column tabular arrangement of its
arguments. Optional pos can be \position
or r for text
position.
\sigma is \sigma. \Sigma is \Sigma (math mode).
\signature{text} declares a signature for
letter document style.
\sim is \sim (math mode).
\simeq is \simeq (math mode).
\sin is \sin (math mode).
\sinh is \sinh (math mode).
\sl switches to slanted typeface.
\sloppy relaxes the line-breaking algorithm to allow more or less distance between words. Default is \textit{fussy}.
\small switches to smaller than \textit{normalsize} typeface.
\smallint is \(\int\) (math mode).
\smallskip — standard “small” vertical skip.
\smallskipamount — default length for \smallskip.
\smile is \(\smile\) (math mode).
\spadesuit is \(\spadesuit\) (math mode).
\sqcap is \(\sqcap\) (math mode).
\sqcup is \(\sqcup\) (math mode).
\sqrt[3]{arg} is \(\sqrt[3]{arg}\). 3 (root) is optional. \(\sqrt{\text{stuff}}\) puts \text{stuff} above the delimiter; \text{stuff}\{delim\} yields \(\sqrt{\text{stuff}}\) (math mode).
\star is \(\star\) (math mode).
\stop — type this if \TeX{} stops with a * and no error message.
\subparagraph*{text} begins a subparagraph and prints a title, but doesn’t include a number or make a table of contents entry.
\subsection*{text}, \subsubsection*{text} begin new subsections, automatically headed and numbered. Optional \textit{toctitle} contains entry for the table of contents if different from \textit{text}.
\subparagraph*{text} begins a subparagraph and prints a title, but doesn’t include a number or make a table of contents entry.
\subsubsection*{text}, \subsubsection*{text} begin subsections, but suppress section number and table of contents entry.
\subset is \(\subset\) (math mode).
\subseteq is \(\subseteq\) (math mode).
\succ is \(\succ\) (math mode).
\succeq is \(\succeq\) (math mode).
\sum is \(\sum\) (math mode).
\sup is \text{sup} (math mode).
\supset is \(\supset\) (math mode).
\supseteq is \(\supseteq\) (math mode).
\surd is \(\sqrt{}\) (math mode).
\swarrow is \(\swarrow\) (math mode).
\symbol{cc} produces the symbol (glyph) character code \text{cc} in the current font.
\textbackslash t prints a “tie-after” accent, as òô.
\tabbingsep — distance to left of a tab stop moved by \textbackslash t.
\tabcolsep — half the width of the space between columns in \textit{tabular} environment.
\tableofcontents produces a table of contents. A .toc file must have been generated during a previous \TeX{} run.
\tan is \(\tan\) (math mode).
\tanh is \(\tanh\) (math mode).
\tau is \(\tau\) (math mode).
\TeX{} produces the \TeX{} logo.
\textfloatsep — distance between floats at the top or bottom of a single-column page and the text on that page.
\textfraction — minimum fraction of a text page that must contain text.
\textheight is the normal vertical dimension of the body of the page.
\textstyle switches to \textit{math} environment typesetting (math mode).
\textwidth is the normal horizontal dimension of the body of the page.
\thanks{footnote} adds an acknowledgement footnote to an author’s name used in a \texttt{maketitle} command.
\theta is \(\theta\).  \Theta is \(\Theta\) (math mode).
\thicklines is an alternate line thickness for lines in a \textit{picture} environment. See also \texttt{linethickness}.
\thinlines is the default declaration for line thicknesses in a \textit{picture} environment. See \texttt{thicklines}.
\thinspace is the proper space between single and double quotes, as in ”.”
\thispagestyle{sty} determines characteristics of head and foot for the current page only. Used to override \texttt{pagestyle} (q.v.) temporarily.
\tilde makes a tilde, as: \texttt{\tilde{a}} (math mode).
\times is \(\times\) (math mode).
\tiny switches to a very small typeface.
\title{text} declares a document title for the \texttt{maketitle} command.
\to is \(\rightarrow\) (math mode).
today generates today's date.
\top is T (math mode).
\topfraction — maximum fraction at the top of
a single-column page that may be occupied by
floats.
\topmargin — space between top of \TeX page (1
inch from top of paper) and top of header.
\topsep — extra vertical space added before first
list item and after last list item.
\topskip — minimum distance between top of
page body to bottom of first line of text.
\triangle is \( \Delta \) (math mode).
\triangledown is \( \triangleleft \) (math mode).
\triangleright is \( \triangleright \) (math mode).
\tt switches to typewriter type.
\twocolumn[\text] declares a two-column page,
with optional full-page width heading \text.
\typein[\cs]{\text} displays \text on the screen
and waits for you to enter stuff which will be
put in the document at that point. Optional
control sequence \cs can be assigned the value
of your input, to be used later.
\typeout{\text} displays \text on the screen and
writes it to the \texttt{.lis} file.
\u prints a breve accent, as \( \breve{o} \).
\unboldmath unboldens math italics and math
symbols. Should be used outside of math mode.
\underbrace{\text} gives \( \underbrace{\text} \) (math mode).
\underline{\text} gives \( \underline{\text} \) (math mode or
not).
\unitlength — length of coordinate units for
picture environment.
\unlhd is \( \unlhd \) (math mode).
\unrhd is \( \unrhd \) (math mode).
\uparrow is \( \uparrow \). \texttt{\uparrow} is \( \uparrow \) (math mode).
\updownarrow is \( \updownarrow \). \texttt{\updownarrow} is \( \updownarrow \) (math
mode).
\uplus is \( \uplus \) (math mode).
\upsilon is \( \upsilon \). \texttt{\upsilon} is \( \Upsilon \) (math mode).
\usebox{\binname} recalls box definition saved
in box \texttt{\binname}.
\usecounter{\counter} is used in a list
environment to cause \counter to be used to
number the items.
\v prints a háček, as \( \check{o} \).
\value{\counter} produces the numeric value of
\counter.
\varepsilon is \( \varepsilon \) (math mode).
\textbf{\LaTeX{} typefaces}

\begin{itemize}
  \item \texttt{\textbackslash m} Roman
  \item \texttt{\textbackslash it} Italic
  \item \texttt{\textbackslash bf} Boldface
  \item \texttt{\textbackslash sl} Slanted
  \item \texttt{\textbackslash sf} Sans serif
  \item \texttt{\textbackslash sc} SMALL CAPS
  \item \texttt{\textbackslash tt} Typewriter
\end{itemize}

\textbf{Dimensions or lengths}

\begin{itemize}
  \item pt point (72.27 pt/in)
  \item pc pica (12 pt/pc)
  \item in inch
  \item bp big point (72 bp/in)
  \item cm centimeter (2.54 cm/in)
  \item mm millimeter (10 mm/cm)
  \item dd didot point (1157 dd = 1238 pt)
  \item cc cicer (12 dd/\textpi)
  \item sp scaled point (65536 sp/pt)
  \item em font-dependent; “quad” width
  \item ex font-dependent; “x”-height
\end{itemize}

\textbf{\LaTeX{} environments}

\begin{itemize}
  \item abstract figure quote
  \item array flushleft tabbing
  \item center flushright table
  \item description itemize tabular
  \item displaymath list theorem
  \item enumerate math titlepage
  \item eqnarray minipage verbatim
  \item equation picture verse
  \item quotation
\end{itemize}

\textbf{Text-mode accents}

\begin{itemize}
  \item \textbackslash o \{o\} \textbackslash o \{o\}
  \item \textbackslash o \{o\} \textbackslash o \{o\}
  \item \textbackslash o \{o\} \textbackslash o \{o\}
  \item \textbackslash o \{o\} \textbackslash o \{o\}
\end{itemize}

\textbf{Greek letters (math mode)}

\begin{itemize}
  \item \textbackslash alpha \nu \textbackslash nu
  \item \textbackslash beta \xi \textbackslash xi
  \item \textbackslash gamma \omicron \textbackslash o
  \item \textbackslash delta \pi \textbackslash pi
  \item \textbackslash epsilon \rho \textbackslash rho
  \item \textbackslash zeta \sigma \textbackslash sigma
  \item \textbackslash eta \tau \textbackslash tau
  \item \textbackslash theta \upsilon \textbackslash upsilon
  \item \textbackslash iota \phi \textbackslash phi
  \item \textbackslash kappa \chi \textbackslash chi
  \item \textbackslash lambda \psi \textbackslash psi
  \item \textbackslash mu \omega \textbackslash omega
\end{itemize}

\textbf{National symbols}

\begin{itemize}
  \item \textbackslash oe \textbackslash oe
  \item \textbackslash ae \textbackslash ae
  \item \textbackslash oe \textbackslash oe
  \item \textbackslash AE \textbackslash AE
\end{itemize}
### Binary operations (math mode)

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Meaning</th>
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</thead>
<tbody>
<tr>
<td>\pm</td>
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### Relations (math mode)

<table>
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<th>Symbol</th>
<th>Meaning</th>
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<tbody>
<tr>
<td>\leq</td>
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### Variable-sized symbols (math mode)

<table>
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<tr>
<th>Symbol</th>
<th>Meaning</th>
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<tbody>
<tr>
<td>\sum</td>
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### Delimiters (math mode)

<table>
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<th>Symbol</th>
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### “Log-like” functions (math mode)

<table>
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<th>Meaning</th>
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<tbody>
<tr>
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</tbody>
</table>
Arrows (math mode)

\leftarrow \longleftarrow
\Leftarrow \Longleftarrow
\rightarrow \longrightarrow
\Rightarrow \Longrightarrow
\leftrightarrow \longleftrightarrow
\Leftarrow\Rightarrow \Leftrightarrow \Longleftrightarrow
\mapsto \longmapsto
\hookrightarrow \hookleftarrow
\leftharpoonup \rightharpoonup
\leftharpoondown \rightharpoondown
\uparrow \downarrow \updownarrow \Uparrow \Downarrow \Updownarrow

Miscellaneous symbols (math mode)

\aleph \prime
\hbar \emptyset
\imath \nabla
\jmath \surd
\ell \top
\wp \bot
\Re || \bot
\Im \angle
\partial \triangle
\infty \backslash
\Box \Diamond
\forall \sharp
\exists \clubsuit
\neg \diamondsuit
\flat \heartsuit
\natural \spadesuit
\mho