$\LaTeX$ 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.

\%u — ordinary space after period.
\%! — negative thin space = $-\frac{1}{2}$ quad;
\%x yields $\textit{xx}$ (math mode).
\%g makes an umlaut, as ö.
\%p prints a pound sign: #.
\%$ prints a dollar sign: $.
\%* prints a percent sign: %.
\%& prints an ampersand: &.
\% in tabbing environment moves current column to the right of the previous column. Elsewhere, acute accent, as ő.
\% — start math mode. Same as \%begin{math} or $\%$
\%! — end math mode. Same as \%end{math} or $\%$
\%* is a discretionary multiplication sign, at which a line break is allowed.
\% moves left margin to the right by one tab stop.
\%Begin tabbed line.
\% — thin space = $\frac{1}{5}$ quad; \%xx yields $\textit{xx}$. It is not restricted to math mode.
\% in tabbing environment, moves left margin to the left by one tab stop. Elsewhere, optional hyphenation.
\% puts a dot accent over a letter, as ö.
\% inserts italics adjustment space.
\%: — medium space = $\frac{2}{2} \frac{1}{2}$ quad; \%xx yields $\textit{xx}$ (math mode).
\%: — thick space = $\frac{1}{2}$ quad; \%xx yields $\textit{xx}$ (math mode).
\% in tabbing environment, puts text to left of local left margin.
\% in tabbing environment, sets a tab stop.
\% otherwise, makes a Macron accent, as ö.
\% in tabbing environment is a forward tab.
\%Otherwise, medium space = $\frac{2}{2} \frac{1}{2}$ quad (math mode).
\%Q declares the period that follows is to be a sentence-ending period.
\% — same as \%begin{displaymath} or $\%$
\% terminates a line.

$\%$ terminates a line, but disallows a pagebreak.
\%J — same as \%end{displaymath} or $\%$
\% makes a circumflex, as ò.
\%_ is an underscore, as in $\%\textit{hours_worked}$.
\%t in tabbing environment moves all text which follows (up to \%t) to the right margin.
\%T elsewhere, grave accent, as ö.
\%t prints a curly left brace: \{.
\%d prints a curly right brace: \}.
\% makes a tilde, as ñ.
\%a makes an acute accent in tabbing environment, as ő.
\%A makes a grave accent in tabbing environment, as ö.
\%a makes a Macron accent in tabbing environment, as ö.
\%a makes aa á. \%AA is Á.\%acute makes an acute accent: á (math mode).
\%addcontentsline{toc}{section}{name} adds the command \%contentsline{section}{name} to the .toc file.
\%address{text} declares the return address in the letter document style.
\%addtcontents{toc}{text} writes text to the .toc file.
\%addtocounter{name}{amount} adds amount to counter name.
\%addtolength{\nl}{length} adds length to length command \nl. See also \%setlength, \%newlength, \%setlength.
\%ae is æ. \%AE is Ä.
\%aleph is 8 (math mode).
\%alph(counter) prints counter as lower-case letters. \%alph(counter) prints upper-case letters.
\%alpha is α (math mode).
\%amalg is I (math mode).
\%and separates multiple authors for the \%maketitle command.
\%angle is ∠ (math mode).
\%appendix starts appendices.
\%approx is ≈ (math mode).
\%arabic(counter) prints counter as Arabic numerals 1, 2, etc.
\%arccos is arccos (math mode).
\%arcsin is arcsin (math mode).
\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).
\texttt{bf} switches to \texttt{bold face} type.
\bibitem[\ref] text creates a bibliography entry \texttt{text}, numbers it, and labels it with reference label \ref.
\bibliography[\texttt{file}] — insert bibliography from file \texttt{name.bib} at this point in text.
\bibliographystyle[\texttt{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 “big” vertical skip.
\bigskipamount — default length for \bigskip.
\bigcup is $\bigcup$ (math mode).
\bigcupplus is $\bigcupplus$ (math mode).
\bigvee is $\bigvee$ (math mode).
\bigwedge is $\bigwedge$ (math mode).
\bmod is binary modulo expression $u \bmod m$ (math mode).
\boldmath changes math italics and math symbols to \texttt{boldface}. Should be used \texttt{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: " (math mode).
\bullet is $\bullet$ (math mode).
\cal produces calligraphic letters, as $\mathcal{B}$ (math mode).
\cap is $\cap$ (math mode).
\caption[\texttt{loftitle}]{\texttt{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{\texttt{text}} declares list of copy recipients for \texttt{letter} document style.
\cdot is $\cdot$ (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. \texttt{begin\{center\}}).
\chapter[\texttt{toc-title}]{\texttt{text}} begins a new section, automatically headed and numbered.
Optional \texttt{toc-title} contains entry for the table of contents if different from \texttt{text}.
\chapter*[\texttt{title}]{\texttt{text}} is like \texttt{chapter\{title\}}, but adds no chapter number or table of contents entry.
\check makes a háček, as ˇ (math mode).
\chi is $\chi$ (math mode).
\circ is $\circ$ (math mode).
\circlearrowleft(diameter) as a valid argument for \texttt{put} in a \texttt{picture} environment, draws a circle.
\circlearrowright(diameter) is like \texttt{circle}, but draws a solid circle.
\cite{\texttt{subcit}}[\texttt{ref}] produces a reference, in square brackets, to a bibliographic item created with \texttt{bibitem}[\texttt{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 i through j inclusive in \texttt{array} or \texttt{tabular} environments.
\closing[\texttt{text}] declares the closing in \texttt{letter} document style.
\clubsuit is $\clubsuit$ (math mode).
\columnsep — distance between columns in 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 $\equiv$ (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 ∪ (math mode).
\d is a “dot under” accent, as ð.
\dag is †.
\dagger is † (math mode).
\dashbox{dwdh}(width,height)[pos]{text} creates a dashed rectangle around text in a picture environment. Dashes are dwd units wide; dimensions of rectangle are width and height; text is positioned at optional pos (see positions on page 8).
\dashv is ⊼ (math mode).
\date{date} declares the date for the \maketitle command. The default is \today.
\day — current day of the month.
\dblfloatepagefraction — minimum fraction of a float page that must be occupied by floats, for two-column float pages.
\dblfloatepsep — 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.
\dbltopfraction — maximum fraction at the top of a two-column page that may be occupied by floats.
\ddag is ‡.
\ddagger is ‡ (math mode).
\ddot makes a dieresis over a letter: ñ (math mode).
\ddots produces a diagonal ellipsis ··· (math mode).
\deg is deg (math mode).
\delta is δ. \Delta is Δ (math mode).
\det is \det (math mode).
\diamond is ◦. \Diamond is ◇ (both math mode).
\diamondsuit is ♦ (math mode).
\dim is \dim (math mode).
\displaystyle switches to displaymath or equation environment typesetting (math mode).
\div is ′ (math mode).
\dot makes a dot over a letter: ñ (math mode).
\doteq is = (math mode).
\dotfill expands to fill horizontal space with row of dots.
\doublerulesep — horizontal distance between vertical rules created by \| in tabular or array environment.
\downarrow is ↓. \Downarrow is ↓ (math mode).
\ell is ℓ (math mode).
\em toggles between roman and italic fonts for emphasis.
\emptyset is ∅ (math mode).
\encinit{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 ≡ (math mode).
\eta is η (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 ∃ (math mode).
\exp is \exp (math mode).
\fbox{text} makes a \fbox{text} 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.
April 18, 1995

\footheight — height of box at bottom of page that holds page number.
\footnote{text} creates a footnote of text.
\footnotemark puts a footnote number into the text.
\footnotesepp — height of strut placed at beginning of footnote.
\footnotesize switches to footnote-sized type.
\footskip — 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.
\forall 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 l 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 8).
\frak is \frak (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 \ge (math mode).
\geq is \geq (math mode).
\gets is \gets (math mode).
\gg is \gg (math mode).
\glossary{text} appends text to the .glo file by writing a \glossaryentry command.
\glossaryentry{text}{ref} is written to the .glo file for \glossary{text} occurring at reference ref.
\grave makes a grave accent: à (math mode).
\H prints a long Hungarian umlaut, as ò.
\hat makes a circumflex: ã (math mode).
\hbar is \hbar (math mode).
\headheight — height of box at top of page that holds running head.
\headsep — vertical distance between bottom of head and top of text.
\heartsuit is \heartsuit (math mode).
\hfill is \hfill (cf. \fill).
\hline draws a horizontal line across all columns of a tabular or array environment.
\hom is \hom (math mode).
\hookleftarrow is \hookleftarrow (math mode).
\hookrightarrow is \hookrightarrow (math mode).
\hrulefill expands to fill horizontal space with horizontal rule.
\hspace{len} leaves a horizontal space of dimension len.
\hspace*[len] is like \hspace{len} but space is not removed at the beginning or end of a line.
\huge switches to a very large typeface. \Huge is even bigger.
\hyphenation{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).
\math is \math (math mode).
\in is \in (math mode).
\include{filename} brings in filename text at that point.
\includeonly{file1,file2,...} limits recognition of \include files.
\index{text} appends text to the .idx file by writing an \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.
\inf is \inf (math mode).
\infty is \infty (math mode).
\input{file} brings in text from file.tex at that point.
\int is \int (math mode).
\intertext sep — vertical space placed above and below float in middle of text.
\iota is \iota (math mode).
\it switches to \textit type.
\item[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 \Join (math mode).
\kappa is \kappa (math mode).
\ker is \ker (math mode).
\kill — in a \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 \ref{text} or \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. \Lambda is \Lambda (math mode).
\land is \land (math mode).
\langle, \langle, and \Large switch to successively larger than \normalsize type sizes.
\LaTeX produces the \LaTeX logo.
\lbrace is \{ (math mode).
\brack is \[ (math mode).
\ceil is \ceil (math mode).
\cdots makes three dots at the base of the line: \ldots (cf. \cldots).
\le is \leq (math mode).
\leadsto is \leadsto (math mode).
\left* (where * is a delimiter) must be paired with \right* (not necessarily using the same delimiter). ‘.’ acts as a null delimiter (math mode).
\leftarrow is \leftarrow (math mode).
\leftarrow{formula} is used in the eqnarray environment to break a long formula across lines.
\leftharpoondown is \leftharpoondown (math mode).
\leftharpoonup is \leftharpoonup (math mode).
\leftmargin, in list environment, horizontal distance between left margin of enclosing environment and left margin of list. Settable for nesting levels 1 through 6, as \leftmargini through \leftmarginvi.
\leftarrow is \leftarrow. \Leftarrow is \Leftarrow (math mode).
\leq is \leq (math mode).
\lfloor is \lfloor (math mode).
\lg is \lg (math mode).
\lhd is \lhd (math mode).
\lim is \lim (math mode).
\liminf is \liminf (math mode).
\limsup is \limsup (math mode).
\line(x,y)\{len\} in picture environment, in \put command, draws line from \put argument with length \len and slope \langle x, y \rangle.
\linebreak[\n] forces a line to break exactly at this point, and adjusts line just terminated (cf. newline). \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 list environment.
\ll is \ll (math mode).
\ln is \ln (math mode).
\lnot is \lnot (math mode).
\log is \log (math mode).
\longleftarrow is \longleftarrow. \Longleftarrow is \Longleftarrow (math mode).
\longmapsto is \longmapsto (math mode).
\longmapsto is \longmapsto (math mode).
\lor is \lor (math mode).
\lq is a left-quote: \'.
\makebox[size][pos]{text} creates a box of dimension size containing text at optional pos. \makebox{width, height}[pos]{text} puts text in a box; dimensions of box are width and height; text is positioned at optional pos (see positions on page 8).
\makeglossary enables writing of \glossaryentry commands to a .glo file.
\makeindex enables writing of \indexentry commands to a .idx file.

\maketitle produces a title with \title, \author, and, optionally, \date.

\mapsto is \larrow (math mode).

\marginpar{text} puts text in the margin as a note.

\marginparpush — minimum amount of vertical space between two marginal notes.

\marginparsep — horizontal space between margin and marginal note.

\marginparwidth — width of a marginal note.

\markboth{lhs}{rhs} defines the left-hand heading \textit{lhs} and the right-hand heading \textit{rhs} for the headings and myheadings page styles.

\markright{rhs} defines the right-hand heading \textit{rhs} for the headings and myheadings page styles.

\max is \texttt{max} (math mode).

\mbox{text} places text into a horizontal box.

\medskip — standard “medium” vertical skip.

\medskipamount — default length for \medskip.

\mho is \U (math mode).

\mid is \vert (math mode).

\min is \texttt{min} (math mode).

\mit is “math italic” as in \textit{II} (math mode).

\models is \models (math mode).

\month — current month of the year.

\mp is \mp (math mode).

\mu is \texttt{\mu} (math mode).

\multicolumn{noc}{fmt}{text} in tabular environment puts text across noc columns using positioning format \texttt{fmt} (\texttt{c,r,l, and/or l}).

\multiput \((x,y)\{\Delta x,\Delta y\}{n}\{\text{obj}\} is
\put \((x,y)\{\text{obj}\}
\put \((x+\Delta x, y+\Delta y)\{\text{obj}\}
\ldots
\put \((x+(n-1)\Delta x, y+(n-1)\Delta y)\{\text{obj}\}.

\nabla is \bigtriangledown (math mode).

\natural is \$ (math mode).

\ne is \ne (math mode).

\nearrow is \nearrow (math mode).

\neg is \neg (math mode).

\neq is \neq (math mode).

\newcommand{\cs}{narg}{\text{def}} defines a new control sequence \texttt{\cs} with definition \texttt{\text{def}}.

Optionally, \texttt{narg} is the number of arguments, indicated in \texttt{\text{def}} as \#1, \#2, etc.

\newcounter{counter}{name} defines a counter optionally to be zeroed whenever the name counter is incremented.

\newenvironment{envname}{\text{marg}}{\text{def1}}{\text{def2}} defines a new environment, optionally with some number of arguments \texttt{narg}. \texttt{\text{def1}} is executed when the environment in entered and \texttt{\text{def2}} is executed when it is exited.

\newfont{cs}{name} defines a control sequence \texttt{cs} that chooses the font \texttt{name}.

\newlength{\nl} sets up \texttt{\nl} as a length of 0in. See also \texttt{\setlength}, \texttt{\addtolength}, \texttt{\settowidth}.

\newline breaks a line right where it is, with no stretching of terminated line (cf. \texttt{\linebreak}).

\newpage ends a page where it appears. (cf. \texttt{\clearpage}).

\newsavebox{\bininame} declares a new bin to hold a \texttt{\savebox}.

\newtheorem{env}{env2}{\text{label}}{secttyp} defines a new theorem environment \texttt{env} (optionally with the same numbering scheme as environment \texttt{env2}) with labels \texttt{label}.

Optionally, theorem numbers can be related to document section \texttt{sectyp}.

\ni is \texttt{\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. \texttt{\linebreak} on page 6).

\nonumber is used in an \texttt{eqnarray} environment to suppress equation numbering.

\nopagebreak[n] prevents a page break at that point (cf. \texttt{\linebreak} on page 6).

\normalmarginpar is default declaration for placement of marginal notes (cf. \texttt{\reversemarginpar}).

\normalsize is the default type size for the document.

\not puts a slash through a relational operator: \texttt{\not=} is \neq (math mode).

\notin is \notin (math mode).

\mu is \texttt{\mu} (math mode).

\narrow is \texttt{\narrow} (math mode).

\o is \texttt{\o} \texttt{\o} \texttt{\o} \texttt{\o}.

\obeycr makes embedded carriage returns act like line terminators.
\oddsidemargin — distance between left side of page and text’s normal left margin.
\odot is \od (math mode).
\oe is œ. \OE is ÕE.
\oint is \oint (math mode).
\omega is ω. \Omega is Ω (math mode).
\ominus is \ominus (math mode).
\onecolumn sets text in single column (default) (cf. \twocolumn.
\opening{text} declares an opening for letter document style.
\oplus is \oplus (math mode).
\oslash is \oslash (math mode).
\otimes is \otimes (math mode).
\oval(x,y) as an argument to \put draws an oval $x$ units wide and $y$ units high.
\overbrace{text} gives $text$ (math mode).
\overline{text} gives $text$ (math mode).
\owns is \owns (math mode).
\P is \P.
\pagebreak[n] forces a page break at that point (cf. \linebreak on page 6).
\pagename{style} determines page numbering style; \texttt{style} may be \texttt{arabic} (3), \texttt{roman} (iii), \texttt{roman} (III), \texttt{alph} (c), \texttt{Alph} (C).
\pageref{text} is the page number on which \label{text} occurs.
\pagestyle{sty} determines characteristics of a page’s head and foot. \texttt{sty} may be \texttt{plain} (page number only), \texttt{empty} (no page number), \texttt{headings} (running headings on each page), \texttt{myheadings} (user headings).
\paragraph[toctitle]{text} begins a new paragraph, automatically headed and numbered. Optional \texttt{toctitle} contains entry for the table of contents if different from text.
\paragraph{text} begins a paragraph and prints a title, but doesn’t include a number or make a table of contents entry.
\parallel is \parallel (math mode).
\parbox[pos]{size}{text} is a box created in paragraph mode. \texttt{text} is positioned optionally at \texttt{pos} (see \texttt{positions} on page 8). Width is \texttt{size}.
\parindent — horizontal indentation added at beginning of paragraph.
\parskip — extra vertical space between paragraphs within a list item.
\parskip — extra vertical space between paragraphs, normally.
\part[toctitle]{text} begins a new part, automatically headed and numbered. Optional \texttt{toctitle} contains entry for the table of contents if different from text.
\part{text} begins a part and prints a title, but doesn’t include a number or make a table of contents entry.
\partial is \partial (math mode).
\partopsep — extra vertical space added before first list item if environment starts a new paragraph.
\perp is \perp (math mode).
\phi is φ. \Phi is Φ (math mode).
\pi is π. \Pi is Π (math mode).
\pm is ± (math mode).
\pmod{modulo} is “parenthesized” modulo expression $u \pmod{2^v - 1}$ (math mode).
\poptabs undoes the previous \poptabs command (restore prior tab settings).
\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).
\pounds is \£.
\Pr is Pr (math mode).
\prec is < (math mode).
\preceq is ≤ (math mode).
\prime is ′ (math mode).
\prod is \prod (math mode).
\propto is \propto (math mode).
\protect permits the use of “dangerous” commands in \texttt{E}-expressions, or in sectioning command and \texttt{caption} arguments.
\ps in \texttt{letter} document style permits additional text after \texttt{closing}.
\ps is \eta, \Psi is Ψ (math mode).
\poptabs in \texttt{tabbing} environment lets you stack tab stop definitions. Undo with \poptabs.
\put(x,y){stuff} is the basic picture-drawing command. (x,y) is the reference point, whose meaning varies for different \texttt{stuff}. \texttt{stuff} may be anything that goes in an \texttt{mbox}.
\raggedbottom causes pages to assume natural height.
\raggedleft declares all text that follows is to be flush against the right margin (cf. \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).
\rangle is } (math mode).
\rbrace is } (math mode).
\rbrack is ] (math mode).
\rceil is ] (math mode).
\Re is \Re (math mode).
\ref{text} is the section number in which
\label{text} occurs.
\renewcommand{\cs}[marg]{def} redefines an
existing control sequence \cs with definition
def. Optionally, marg is the number of
arguments, indicated in def as \#1, \#2, etc.
\renewenvironment{envname}[marg]{def1}{def2}
redefines an existing environment. See
\newenvironment.
\restorecs undoes the \obeysc 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 \rhd (math mode).
\rho is \rho (math mode).
\right* (where * is a delimiter) must be paired
with \left* (not necessarily using the same
delimiter). \, acts as a null delimiter (math
mode).
\rightarrow is \rightarrow. \Rightarrow is \Rightarrow (math
mode).
\rightarpoondown is \rightarrow (math mode).
\rightarpoonup is \rightarrow (math mode).
\rightleftharpoons is \equiv (math mode).
\rightmargin — in 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 \text{counter} in lower-case
roman numerals. \text{\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{\binname}[width][pos]{text} is
exactly like \makebox (q.v.), but saves box
definition in bin \binname. Access with
\usebox{\binname}.
\showbox{\binname}{text} saves text in box
\binname (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{tocontent}{text} begins a new
section, automatically headed and numbered.
Optional toccontent 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{\nl}{length} sets value of length
command \nl to length. See also
\addtolength, \newlength, \settowidth.
\setminus is \setminus (math mode).
\settowidth{\nl}{text} sets value of length
command \nl to the width of text. See also
\setlength, \newlength, \addtolength.
\sharp is \sharp (math mode).
\shortstack[pos]{x\y\y\z\z} yields zzz, a
one-column tabular arrangement of its
arguments. Optional pos can be 1 or r for text
position.
\sigma is \sigma. \text{\Sigma} is \Σ (math mode).
\signature{text} declares a signature for
\text{\text} document style.
\sim is \sim (math mode).
\simeq is \simeq (math mode).
\sin is \sin (math mode).
\sinh is \sinh (math mode).
\textbf{\LaTeX} Command Summary

\texttt{\textbackslash s l} switches to \textit{slanted} typeface.
\texttt{\textbackslash sloppy} relaxes the line-breaking algorithm to allow more or less distance between words. Default is \texttt{\textbackslash fussy}.
\texttt{\textbackslash small} switches to smaller than \texttt{\textbackslash normalize} typeface.
\texttt{\textbackslash small int} is \textbackslash f (math mode).
\texttt{\textbackslash smallskip} — standard “small” vertical skip.
\texttt{\textbackslash smallskipamount} — default length for \texttt{\textbackslash smallskip}.
\texttt{\textbackslash smile} is \textbackslash (math mode).
\texttt{\textbackslash spadesuit} is \textbackslash (math mode).
\texttt{\textbackslash sqcap} is \textbackslash (math mode).
\texttt{\textbackslash sqcup} is \textbackslash (math mode).
\texttt{\textbackslash sqrt[3]{\textup{arg}}} is \textbackslashsqrt[3]{\textup{arg}}. 3 (root) is optional.
\texttt{\textbackslash sqsubset} is \textbackslash (math mode).
\texttt{\textbackslash sqsubseteq} is \textbackslash (math mode).
\texttt{\textbackslash sqsupset} is \textbackslash (math mode).
\texttt{\textbackslash sqsupseteq} is \textbackslash (math mode).
\texttt{\textbackslash ss} is \textbackslash (math mode).
\texttt{\textbackslash stackrel{\texttt{stuff}}{\texttt{delim}}} puts \texttt{stuff} above the delimiter; \texttt{\textbackslash stackrel{\texttt{f}}{\textbackslash longrightarrow}} yields \textbackslashrightarrow (math mode).
\texttt{\textbackslash star} is \textbackslash (math mode).
\texttt{\textbackslash stop} — type this if \LaTeX{} stops with a \texttt{*} and no error message.
\texttt{\textbackslash subparagraph}[\texttt{\textbackslash maketitle}]{\texttt{text}} begins a subparagraph, automatically headed and numbered. Optional \texttt{\textbackslash maketitle} contains entry for the table of contents if different from \texttt{\textbackslash text}.
\texttt{\textbackslash subparagraph*{\texttt{text}}} begins a subparagraph and prints a title, but doesn’t include a number or make a table of contents entry.
\texttt{\textbackslash subsection}[\texttt{\textbackslash maketitle}]{\texttt{text}}, \texttt{\textbackslash subsubsection}[\texttt{\textbackslash maketitle}]{\texttt{text}} begin new subsections, automatically headed and numbered. Optional \texttt{\textbackslash maketitle} contains entry for the table of contents if different from \texttt{\textbackslash text}.
\texttt{\textbackslash subsection*{\texttt{text}}, \textbackslash subsubsection*{\texttt{text}}} begin subsections, but suppress section number and table of contents entry.
\texttt{\textbackslash subset} is \textbackslash (math mode).
\texttt{\textbackslash subseteq} is \textbackslash (math mode).
\texttt{\textbackslash succ} is \textbackslash (math mode).
\texttt{\textbackslash succeq} is \textbackslash (math mode).
\texttt{\textbackslash sum} is \textbackslash (math mode).
\texttt{\textbackslash sup} is sup (math mode).
\texttt{\textbackslash supset} is \textbackslash (math mode).
\texttt{\textbackslash supseteq} is \textbackslash (math mode).
\texttt{\textbackslash surd} is \textbackslash (math mode).
\texttt{\textbackslash swarrow} is \textbackslash (math mode).
\texttt{\textbackslash symbolcc} produces the symbol (glyph) character code \texttt{cc} in the current font.
\texttt{\textbackslash t} prints a “tie-after” accent, as \texttt{\&}. 
\texttt{\textbackslash tabbingsep} — distance to left of a tab stop moved by \texttt{\}. 
\texttt{\textbackslash tabcolsep} — half the width of the space between columns in \texttt{\textbackslash tabular} environment. 
\texttt{\textbackslash tableofcontents} produces a table of contents. A \texttt{.toc} file must have been generated during a previous \LaTeX{} run.
\texttt{\textbackslash tan} is tan (math mode).
\texttt{\textbackslash tanh} is tanh (math mode).
\texttt{\textbackslash tau} is \textbackslash (math mode).
\texttt{\textbackslash T e X} produces the \textbackslash TeX logo.
\texttt{\textbackslash textfloatsep} — distance between floats at the top or bottom of a single-column page and the text on that page.
\texttt{\textbackslash extfraction} — minimum fraction of a text page that must contain text.
\texttt{\textbackslash textheight} is the normal vertical dimension of the body of the page.
\texttt{\textbackslash textstyle} switches to \textit{math} environment typesetting (math mode).
\texttt{\textbackslash textwidth} is the normal horizontal dimension of the body of the page.
\texttt{\textbackslash thanks} adds an acknowledgement footnote to an author’s name used in a \texttt{\textbackslash maketitle} command.
\texttt{\textbackslash theta} is \textbackslash (math mode).
\texttt{\textbackslash thicklines} is \textbackslash (math mode).
\texttt{\textbackslash thicklines} is an alternate line thickness for lines in a \texttt{\textbackslash picture} environment. See also \texttt{\textbackslash linethickness}.
\texttt{\textbackslash thinlines} is the default declaration for line thicknesses in a \texttt{\textbackslash picture} environment. See \texttt{\textbackslash thicklines}.
\texttt{\textbackslash thinspace} is the proper space between single and double quotes, as in “”. 
\texttt{\textbackslash thispagestyle{\texttt{\textbackslash sty}}} determines characteristics of head and foot for the current page only. Used to override \texttt{\textbackslash pagestyle{\texttt{\textbackslash q.v.}}} temporarily.
\texttt{\textbackslash tilde} makes a tilde, as \texttt{\textbackslash tilde} (math mode).
\texttt{\textbackslash times} is \textbackslash (math mode).
\texttt{\textbackslash tiny} switches to a very small typeface.
\texttt{\textbackslash title{\texttt{text}}} declares a document title for the \texttt{\textbackslash maketitle} command.
\texttt{\textbackslash to} is \textbackslash (math mode).
\today generates today's date.
\top is \top (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).
\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{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 \text \text file.
\u prints a breve accent, as ô.
\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 \text environment.
\unlhd is $\unlhd$ (math mode).
\unrhd is $\unrhd$ (math mode).
\uparrow is \uparrow. \Uparrow is $\Uparrow$ (math mode).
\updownarrow is $\updownarrow$. \Updownarrow is $\Updownarrow$ (math mode).
\uplus is $\uplus$ (math mode).
\upsilon is $\upsilon$. \Upsilon is $\Upsilon$ (math mode).
\usebox{\binname} recalls box definition saved in box \binname.
\usecounter{counter} is used in a list environment to cause counter to be used to number the items.
\v prints a háček, as ô.
\value{counter} produces the numeric value of counter.
\varepsilon is $\varepsilon$ (math mode).
\TeX\ command summary

**\TeX\ typefaces**

\texttt{\rm} Roman
\texttt{\it} Italic
\texttt{\bf} Boldface
\texttt{\sl} Slanted
\texttt{\sf} Sans serif
\texttt{\sc} SMALL CAPS
\texttt{\tt} Typewriter

**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 cicero (12 dd/\text{cc})
  \item sp scaled point (65536 sp/pt)
  \item em font-dependent; “quad” width
  \item ex font-dependent; “x”-height
\end{itemize}

**\TeX\ environments**

\begin{itemize}
  \item abstract
  \item array
  \item center
  \item description
  \item displaymath
  \item enumerate
  \item eqnarray
  \item equation
\end{itemize}

**Miscellaneous symbols**

\begin{itemize}
  \item \dag
  \item \ddag
  \item \textcopyright
  \item \textdagger
\end{itemize}

**Math-mode accents**

\begin{itemize}
  \item \hat{a}
  \item \check{a}
  \item \tilde{a}
  \item \acute{a}
  \item \grave{a}
\end{itemize}

**Greek letters (math mode)**

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

**Text-mode accents**

\begin{itemize}
  \item o \{"o\}
  \item o \{"ö\}
  \item o \{"ö\}
  \item o \{"ö\}
  \item o \{"ö\}
  \item o \{"ö\}
\end{itemize}

**National symbols**

\begin{itemize}
  \item \oe
  \item \OE
  \item \ae
  \item \AE
\end{itemize}
Arrows (math mode)

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

Miscellaneous symbols (math mode)

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