

Symbols and Notations

There are many symbols and notations which may need to be used in a document. Moreover, there exist many special letters used in different languages. All such symbols and letters are to be produced in a L^AT_EX document through commands. On the other hand, as mentioned in § 1.6 on page 7 and given in Table 1.4 on page 8, many keyboard symbols and notations also cannot be used directly in a L^AT_EX document, but through some commands. Such commonly used symbols, notations, and letters are listed here.

A.1 Text-Mode Accents and Symbols

Text-mode accents and symbols can be produced in running texts without using any special L^AT_EX package. Commands for producing various non-English accents are given in Table A.1 for the letter ‘o’. The commands are equally applicable to other

Table A.1 Text-mode non-English accents

Accent	command	Accent	command	Accent	command	Accent	command
ò	<code>\{o}</code>	õ	<code>\~{o}</code>	ø	<code>\c{o}</code>	ö	<code>\v{o}</code>
ó	<code>\'o}</code>	ö	<code>\=o}</code>	ø	<code>\d{o}</code>	ő	<code>\H{o}</code>
ô	<code>\^o}</code>	ô	<code>\{o}</code>	öo	<code>\t{o}</code>	ô	<code>\r{o}</code>
ö	<code>\"o}</code>	ø	<code>\b{o}</code>	ö	<code>\u{o}</code>		

letters also, except i and j. In order to remove their dots in accents, i and j are replaced by **ı** and **ı** for producing **ı** and **ı**, respectively, e.g., `\"ı` for producing **ı** or `\vı` for producing **ı**. Note that an accent can be generated without a letter also, e.g., `\c{}` will produce a (.) or `\v{}` will produce a (˘). Since `\=`, `\^`, and `\v` are reserved for special purposes in the **tabbing** environment, these cannot be used directly for producing accents in that environment (refer §6.2.2 on page 58 for detail).

Table A.2 shows some text-mode non-English symbols, where the commands `\i` and `\j`, producing **ı** and **ı**, respectively, are noticeable as they are not preceded by any `\`. Some other miscellaneous text-mode symbols are given in Table A.3.

Table A.2 Text-mode non-English symbols

Symbol	command	Symbol	command	Symbol	command	Symbol	command
æ	<code>\ae</code>	â	<code>\aa</code>	ø	<code>\o</code>	ı	<code>?</code>
Æ	<code>\AE</code>	Å	<code>\AA</code>	Ø	<code>\O</code>	ı	<code>!</code>
œ	<code>\oe</code>	ı	<code>\I</code>	ß	<code>\ss</code>		
Œ	<code>\OE</code>	Ł	<code>\L</code>				

Table A.3 Text-mode miscellaneous symbols

Symbol	command	Symbol	command	Symbol	command	Symbol	command
#	<code>\#</code>	–	<code>_</code>	†	<code>\dag</code>	£	<code>\pounds</code>
\$	<code>\\$</code>	^	<code>\^</code>	‡	<code>\ddag</code>	✓	<code>\checkmark</code>
%	<code>\%</code>	&	<code>\&</code>	¶	<code>\P</code>	T _E X	<code>\TeX</code>
{	<code>\{</code>	...	<code>\ldots</code>	§	<code>\S</code>	L ^A T _E X	<code>\LaTeX</code>
}	<code>\}</code>	⋮	<code>\vdots</code>	©	<code>\copyright</code>		

Many commands of Tables A.1, A.2, and A.3 may not work in math-mode, in which case a command may be applied through `\mbox{}` or `\text{}` (refer §12.1 on page 113 for detail).

A.2 Math-Mode Symbols

The commands required for producing math-mode symbols and letters, like α or β , are defined in separate packages, such as `amssymb`, `amsmath`, and `stmaryrd`. All the three packages can be loaded in the preamble through the single command `\usepackage{amssymb,amsmath,stmaryrd}`. Note that in running texts, a math-mode command is to be inserted in an inline math-mode, such as `$ $`, or `(\)`, e.g., `$\beta$` for producing β or `\(x^2+y^2=r^2\)` for producing $x^2 + y^2 = r^2$ (refer §11.3 on page 104 for detail). On the other hand, if a symbol is to be produced in boldface, it may be inserted through the `\boldsymbol{}` command, e.g., `$\boldsymbol{\beta}$` in inline, or `\boldsymbol{\beta}` in a math-mode, will produce β (β in boldface).

Commands for producing various Greek letters are given in Table A.4 on the next page. The command for a lowercase Greek letter is its name in lowercase preceded by a `\`, while that for an uppercase letter is its name with the first letter in uppercase, preceded by a `\`.

Various binary operators, relation operators, and arrow symbols are given in Tables A.5, A.6, A.7, A.8, A.9, A.10, A.11, and A.12. Similar to the text-mode accents of Table A.1, some math-mode accents also exist which are given in Table A.13 (an accent command can be used twice to obtain a double accent, e.g., `\acute{\acute{x}}` will produce $\acute{\acute{x}}$). Different delimiters, a pair of which is used for enclosing an expression, are given in Table A.14. Moreover, some mathematical functions and other miscellaneous symbols are provided in Tables A.15 and A.16.

Table A.4 Greek letters (math-mode)

Symbol	command	Symbol	command	Symbol	command	Symbol	command
Lowercase		κ	<code>\kappa</code>	υ	<code>\upsilon</code>	Ξ	<code>\Xi</code>
α	<code>\alpha</code>	λ	<code>\lambda</code>	ϕ	<code>\phi</code>	Π	<code>\Pi</code>
β	<code>\beta</code>	μ	<code>\mu</code>	φ	<code>\varphi</code>	Σ	<code>\Sigma</code>
γ	<code>\gamma</code>	ν	<code>\nu</code>	χ	<code>\chi</code>	Υ	<code>\Upsilon</code>
δ	<code>\delta</code>	ξ	<code>\xi</code>	ψ	<code>\psi</code>	Φ	<code>\Phi</code>
ϵ	<code>\epsilon</code>	π	<code>\pi</code>	ω	<code>\omega</code>	Ψ	<code>\Psi</code>
ε	<code>\varepsilon</code>	ϖ	<code>\varpi</code>	Uppercase		Ω	<code>\Omega</code>
ζ	<code>\zeta</code>	ρ	<code>\rho</code>	Γ	<code>\Gamma</code>	AMS Greek	
η	<code>\eta</code>	ϱ	<code>\varrho</code>	Δ	<code>\Delta</code>	F	<code>F</code>
θ	<code>\theta</code>	σ	<code>\sigma</code>	Θ	<code>\Theta</code>	\varkappa	<code>\varkappa</code>
ϑ	<code>\vartheta</code>	ς	<code>\varsigma</code>	Λ	<code>\Lambda</code>		
ι	<code>\iota</code>	τ	<code>\tau</code>				

Table A.5 AMS binary operators (math-mode)

Symbol	Command	Symbol	Command	Symbol	Command
$\dot{+}$	<code>\dotplus</code>	\curlyvee	<code>\curlyvee</code>	\odot	<code>\circledcirc</code>
\times	<code>\times</code>	$\bar{\wedge}$	<code>\barwedge</code>	\ominus	<code>\circledast</code>
\rtimes	<code>\rtimes</code>	$\overline{\wedge}$	<code>\doublebarwedge</code>	\otimes	<code>\circledast</code>
\boxdot	<code>\boxdot</code>	\curlywedge	<code>\curlywedge</code>	\cap	<code>\Cap</code>
\boxplus	<code>\boxplus</code>	\smallsetminus	<code>\smallsetminus</code>	\cup	<code>\Cup</code>
\boxminus	<code>\boxminus</code>	\leftthreetimes	<code>\leftthreetimes</code>	\intercal	<code>\intercal</code>
\boxtimes	<code>\boxtimes</code>	\rightthreetimes	<code>\rightthreetimes</code>	$\int\int$	<code>\iint\limits_s</code>
\veebar	<code>\veebar</code>	\divideontimes	<code>\divideontimes</code>	$\int\int\int$	<code>\iiint\limits_{v}</code>

Table A.6 Stmaryrd binary operators (math-mode)

Symbol	command	Symbol	command	Symbol	command
\leftarrow	<code>\leftarrow</code>	\boxast	<code>\boxast</code>	\curlyvee	<code>\varcurlyvee</code>
\rightarrow	<code>\rightarrow</code>	\leftslic	<code>\leftslic</code>	\curlyveeuparrow	<code>\curlyveeuparrow</code>
\uparrow	<code>\uparrow</code>	\rightslic	<code>\rightslic</code>	\curlyveedownarrow	<code>\curlyveedownarrow</code>
\downarrow	<code>\downarrow</code>	\oblong	<code>\oblong</code>	\curlywedge	<code>\varcurlywedge</code>
$\bar{\phi}$	<code>\bar{\phi}</code>	\obars	<code>\obars</code>	\curlywedgearrow	<code>\curlywedgearrow</code>
\int	<code>\int</code>	\obslash	<code>\obslash</code>	\curlywedgedownarrow	<code>\curlywedgedownarrow</code>
$\int\int$	<code>\int\int</code>	\ogreaterthan	<code>\ogreaterthan</code>	$\&$	<code>\binampersand</code>
$\int\int\int$	<code>\int\int\int</code>	\olessthan	<code>\olessthan</code>	$\int\int$	<code>\bindnasrepma</code>
$\int\int\int\int$	<code>\int\int\int\int</code>	\ovee	<code>\ovee</code>	$\int\int\int$	<code>\interleave</code>
$\int\int\int\int\int$	<code>\int\int\int\int\int</code>	\owedge	<code>\owedge</code>	\otimes	<code>\varogreaterthan</code>
$\int\int\int\int\int\int$	<code>\int\int\int\int\int\int</code>	\ovbigcirc	<code>\ovbigcirc</code>	\otimes	<code>\varolessthan</code>
$\int\int\int\int\int\int\int$	<code>\int\int\int\int\int\int\int</code>	\ovast	<code>\ovast</code>	\times	<code>\vartimes</code>
$\int\int\int\int\int\int\int\int$	<code>\int\int\int\int\int\int\int\int</code>	\ovbar	<code>\ovbar</code>	Large-sized	
$\int\int\int\int\int\int\int\int\int$	<code>\int\int\int\int\int\int\int\int\int</code>	\ovobslash	<code>\ovobslash</code>	\square	<code>\bigbox</code>
$\int\int\int\int\int\int\int\int\int\int$	<code>\int\int\int\int\int\int\int\int\int\int</code>	\ovoslash	<code>\ovoslash</code>	\curlyvee	<code>\bigcurlyvee</code>
$\int\int\int\int\int\int\int\int\int\int\int$	<code>\int\int\int\int\int\int\int\int\int\int\int</code>	\ovodot	<code>\ovodot</code>	\curlywedge	<code>\bigcurlywedge</code>
$\int\int\int\int\int\int\int\int\int\int\int\int$	<code>\int\int\int\int\int\int\int\int\int\int\int\int</code>	\ovominus	<code>\ovominus</code>	$\int\int\int$	<code>\biginterleave</code>
$\int\int\int\int\int\int\int\int\int\int\int\int\int$	<code>\int\int\int\int\int\int\int\int\int\int\int\int\int</code>	\ovoplus	<code>\ovoplus</code>	$\int\int\int\int$	<code>\bignplus</code>
$\int\int\int\int\int\int\int\int\int\int\int\int\int\int$	<code>\int\int\int\int\int\int\int\int\int\int\int\int\int\int</code>	\ovotimes	<code>\ovotimes</code>	$\int\int\int\int\int$	<code>\bigparallel</code>
$\int\int\int\int\int\int\int\int\int\int\int\int\int\int\int$	<code>\int\int\int\int\int\int\int\int\int\int\int\int\int\int\int</code>	\ovovee	<code>\ovovee</code>	$\int\int\int\int\int\int$	<code>\bigsqcap</code>
$\int\int\int\int\int\int\int\int\int\int\int\int\int\int\int\int$	<code>\int\int\int\int\int\int\int\int\int\int\int\int\int\int\int\int</code>	\ovowedge	<code>\ovowedge</code>	$\int\int\int\int\int\int\int$	<code>\bigtriangleup</code>
$\int\int\int\int\int\int\int\int\int\int\int\int\int\int\int\int\int$	<code>\int\int\int\int\int\int\int\int\int\int\int\int\int\int\int\int\int</code>	\ovocircle	<code>\ovocircle</code>	$\int\int\int\int\int\int\int\int$	<code>\bigtriangledown</code>

Table A.7 AMS relation operators (math-mode)

Symbol	command	Symbol	command	Symbol	command
\leq	<code>\leqq</code>	\thickapprox	<code>\thicksim</code>	\because	<code>\because</code>
\leqslant	<code>\leqslant</code>	\backsim	<code>\backsim</code>	\therefore	<code>\therefore</code>
\lesssim	<code>\lesssim</code>	\backsimeq	<code>\backsimeq</code>	\between	<code>\between</code>
\lessapprox	<code>\lessapprox</code>	\subsetneq	<code>\subsetneqq</code>	\circeq	<code>\circeq</code>
\lessdot	<code>\lessdot</code>	\sqsubset	<code>\sqsubset</code>	\circlearrowleft	<code>\circlearrowleft</code>
\ll	<code>\ll</code>	\sqsupset	<code>\sqsupseteq</code>	$\dot{=}$	<code>\doteqdot</code>
\geq	<code>\geqq</code>	\sqsupsetneq	<code>\sqsupsetneqq</code>	\risingdotseq	<code>\risingdotseq</code>
\geqslant	<code>\geqslant</code>	\Subset	<code>\Subset</code>	\fallingdotseq	<code>\fallingdotseq</code>
\gtrsim	<code>\gtrsim</code>	\Supset	<code>\Supset</code>	\smallfrown	<code>\smallfrown</code>
\gtrless	<code>\gtrless</code>	\preccurlyeq	<code>\preccurlyeq</code>	\shortmid	<code>\shortmid</code>
\gtrdot	<code>\gtrdot</code>	\prec	<code>\prec</code>	\varpropto	<code>\varpropto</code>
\ggg	<code>\ggg</code>	\curlyeqprec	<code>\curlyeqprec</code>	\smallsmile	<code>\smallsmile</code>
\lessgtr	<code>\lessgtr</code>	\preccurlyeq	<code>\preccurlyeq</code>	\triangleq	<code>\triangleq</code>
\lesseqgtr	<code>\lesseqgtr</code>	\succapprox	<code>\succapprox</code>	\pitchfork	<code>\pitchfork</code>
\lesseqqgtr	<code>\lesseqqgtr</code>	\succsim	<code>\succsim</code>	\backepsilon	<code>\backepsilon</code>
\gtrless	<code>\gtrless</code>	\curlyeqsucc	<code>\curlyeqsucc</code>	\shortparallel	<code>\shortparallel</code>
\gtrdot	<code>\gtrdot</code>	\succcurlyeq	<code>\succcurlyeq</code>	\triangleleft	<code>\triangleleft</code>
\gtrless	<code>\gtrless</code>	\Vdash	<code>\Vdash</code>	\triangleright	<code>\triangleright</code>
\gtrdot	<code>\gtrdot</code>	\vdash	<code>\vdash</code>	\blacktriangleleft	<code>\blacktriangleleft</code>
\gtrdot	<code>\gtrdot</code>	\Vdash	<code>\Vdash</code>	\blacktriangleright	<code>\blacktriangleright</code>
\approx	<code>\approx</code>	\bumpeq	<code>\bumpeq</code>	\vartriangleleft	<code>\vartriangleleft</code>
\thickapprox	<code>\thickapprox</code>	\Bumpeq	<code>\Bumpeq</code>	\vartriangleright	<code>\vartriangleright</code>

Table A.8 Stmaryrd relation operators (math-mode)

Symbol	command	Symbol	command	Symbol	command
\inplus	<code>\inplus</code>	\supsetplus	<code>\supsetplus</code>	\triangleleftslant	<code>\triangleleftslant</code>
\niplus	<code>\niplus</code>	\supsetplusseq	<code>\supsetplusseq</code>	\trianglerightslant	<code>\trianglerightslant</code>
\subsetplus	<code>\subsetplus</code>	\triangleleftslant	<code>\triangleleftslant</code>		
\subsetplusseq	<code>\subsetplusseq</code>	\trianglerightslant	<code>\trianglerightslant</code>		

Table A.9 AMS negated relation operators (math-mode)

Symbol	command	Symbol	command	Symbol	command
\nless	<code>\nless</code>	\nnsim	<code>\nnsim</code>	\nsim	<code>\nsim</code>
\nleq	<code>\nleq</code>	\nsubsetneq	<code>\nsubsetneq</code>	\ncong	<code>\ncong</code>
\nleqslant	<code>\nleqslant</code>	\nsubseteq	<code>\nsubseteq</code>	\nmid	<code>\nmid</code>
\nleqq	<code>\nleqq</code>	\nsubseteqeq	<code>\nsubseteqeq</code>	\nshortmid	<code>\nshortmid</code>
\nleqslant	<code>\nleqslant</code>	\nsubseteqqq	<code>\nsubseteqqq</code>	\nvdash	<code>\nvdash</code>
\nvertneqq	<code>\nvertneqq</code>	\nsubsetneqq	<code>\nsubsetneqq</code>	\nVdash	<code>\nVdash</code>
\nleqq	<code>\nleqq</code>	\nsupseteq	<code>\nsupseteq</code>	\nVDash	<code>\nVDash</code>
\nleqq	<code>\nleqq</code>	\nsupseteqeq	<code>\nsupseteqeq</code>	\nparallel	<code>\nparallel</code>
\napprox	<code>\napprox</code>	\nsupseteqqq	<code>\nsupseteqqq</code>	\nshortparallel	<code>\nshortparallel</code>
\nnsim	<code>\nnsim</code>	\nprec	<code>\nprec</code>	\ntriangleleft	<code>\ntriangleleft</code>
\ngtr	<code>\ngtr</code>	\npreceq	<code>\npreceq</code>	\ntrianglelefteq	<code>\ntrianglelefteq</code>
\ngneq	<code>\ngneq</code>	\nprecnapprox	<code>\nprecnapprox</code>	\ntriangleright	<code>\ntriangleright</code>
\ngtr	<code>\ngtr</code>	\nprecnsim	<code>\nprecnsim</code>	\ntrianglerighteq	<code>\ntrianglerighteq</code>
\ngneqslant	<code>\ngneqslant</code>	\nsucc	<code>\nsucc</code>	\nvarsubsetneq	<code>\nvarsubsetneq</code>
\ngvertneqq	<code>\ngvertneqq</code>	\nsucceq	<code>\nsucceq</code>	\nvarsubsetneqq	<code>\nvarsubsetneqq</code>
\ngneqq	<code>\ngneqq</code>	\nsuccapprox	<code>\nsuccapprox</code>	\nvarsupsetneq	<code>\nvarsupsetneq</code>
\ngneqq	<code>\ngneqq</code>	\nsuccsim	<code>\nsuccsim</code>	\nvarsupsetneqq	<code>\nvarsupsetneqq</code>
\ngapprox	<code>\ngapprox</code>				

Table A.10 Arrow symbols (math-mode)

Symbol	command	Symbol	command	Symbol	command
\leftarrow	<code>\gets</code>	\Leftrightarrow	<code>\leftrightharpoons</code>	\longleftarrow	<code>\longleftarrow</code>
\leftarrow	<code>\leftarrow</code>	\leftrightarrow	<code>\leftrightarrow</code>	\longrightarrow	<code>\longrightarrow</code>
\mapsto	<code>\mapsfrom</code>	\updownarrow	<code>\updownarrow</code>	\longleftrightarrow	<code>\longleftrightarrow</code>
\rightarrow	<code>\to</code>	\Leftrightarrow	<code>\Leftrightarrow</code>	\Lleftarrow	<code>\Lleftarrow</code>
\rightarrow	<code>\rightarrow</code>	\Updownarrow	<code>\Updownarrow</code>	\Rrightarrow	<code>\Rrightarrow</code>
\mapsto	<code>\mapsto</code>	\leadsto	<code>\leadsto</code>	\Lleftrightarrow	<code>\Lleftrightarrow</code>
\uparrow	<code>\uparrow</code>	\nearrow	<code>\nearrow</code>	\leftharpoonup	<code>\leftharpoonup</code>
\downarrow	<code>\downarrow</code>	\swarrow	<code>\swarrow</code>	\leftharpoondown	<code>\leftharpoondown</code>
\Leftarrow	<code>\Leftarrow</code>	\searrow	<code>\searrow</code>	\rightharpoonup	<code>\rightharpoonup</code>
\Rightarrow	<code>\Rightarrow</code>	\nwarrow	<code>\nwarrow</code>	\rightharpoondown	<code>\rightharpoondown</code>
\Uparrow	<code>\Uparrow</code>	\hookrightarrow	<code>\hookrightarrow</code>	\mapsto	<code>\mapsto</code>
\Downarrow	<code>\Downarrow</code>	\hookrightarrow	<code>\hookrightarrow</code>	\mapsfrom	<code>\mapsfrom</code>

Table A.11 AMS arrow symbols (math-mode)

Symbol	command	Symbol	command
\dashleftarrow	<code>\dashleftarrow</code>	\looparrowleft	<code>\looparrowleft</code>
\leftarrowtail	<code>\leftarrowtail</code>	\looparrowright	<code>\looparrowright</code>
\leftrightharpoons	<code>\leftrightharpoons</code>	\Lsh	<code>\Lsh</code>
\twoheadleftarrow	<code>\twoheadleftarrow</code>	\Rsh	<code>\Rsh</code>
\curvearrowleft	<code>\curvearrowleft</code>	\leftrightsquigarrow	<code>\leftrightsquigarrow</code>
\circlearrowleft	<code>\circlearrowleft</code>	\rightsquigarrow	<code>\rightsquigarrow</code>
\dashrightarrow	<code>\dashrightarrow</code>	\rightleftarrows	<code>\rightleftarrows</code>
\rightarrowtail	<code>\rightarrowtail</code>	\Lleftarrow	<code>\Lleftarrow</code>
\rightrightarrows	<code>\rightrightarrows</code>	\upuparrows	<code>\upuparrows</code>
\twoheadrightarrow	<code>\twoheadrightarrow</code>	\downdownarrows	<code>\downdownarrows</code>
\curvearrowright	<code>\curvearrowright</code>	\multimap	<code>\multimap</code>
\circlearrowright	<code>\circlearrowright</code>	\leftarrow	<code>\leftarrow</code>
\leftrightharpoons	<code>\leftrightharpoons</code>	\rightarrow	<code>\rightarrow</code>
\rightleftharpoons	<code>\rightleftharpoons</code>	\leftrightharpoons	<code>\leftrightharpoons</code>
\upharpoonleft	<code>\upharpoonleft</code>	\Leftarrow	<code>\Leftarrow</code>
\upharpoonright	<code>\upharpoonright</code>	\nrightarrow	<code>\nrightarrow</code>
\downharpoonleft	<code>\downharpoonleft</code>	\Leftrightarrow	<code>\Leftrightarrow</code>
\downharpoonright	<code>\downharpoonright</code>	\nLeftarrow	<code>\nLeftarrow</code>

Table A.12 Stmaryrd arrow symbols (math-mode)

Symbol	command	Symbol	command	Symbol	command
\Leftrightarrow	<code>\Mapsfrom</code>	\Leftrightarrow	<code>\Longmapsto</code>	\triangleleft	<code>\leftarrowtriangle</code>
\mapsto	<code>\Mapsto</code>	\Leftrightarrow	<code>\Longmapsfrom</code>	\triangleright	<code>\rightarrowtriangle</code>
\nwarrow	<code>\nnwarrow</code>	\leftarrow	<code>\longmapsfrom</code>	\rightleftharpoons	<code>\leftrightharroweq</code>
\nearrow	<code>\nnearrow</code>	\uparrow	<code>\shortuparrow</code>	\leftrightarrow	<code>\leftrightharrowtriangle</code>
\searrow	<code>\ssearrow</code>	\downarrow	<code>\shortdownarrow</code>	\rangle	<code>\rrparenthesis</code>
\swarrow	<code>\sswarrow</code>	\leftarrow	<code>\shortleftarrow</code>		
\lightning	<code>\lightning</code>	\rightarrow	<code>\shortrightarrow</code>		

Table A.13 Accents and constructs (math-mode)

Symbol	command	Symbol	command	Symbol	command
\hat{x}	<code>\hat{x}</code>	\overline{xyz}	<code>\overline{xyz}</code>	In accents, replace i and j by <code>\imath</code> and <code>\jmath</code>	
\check{x}	<code>\check{x}</code>	\underline{xyz}	<code>\underline{xyz}</code>	\hat{i}	<code>\hat{\imath}</code>
\breve{x}	<code>\breve{x}</code>	\overleftarrow{xyz}	<code>\overleftarrow{xyz}</code>	\hat{j}	<code>\hat{\jmath}</code>
\tilde{x}	<code>\tilde{x}</code>	\overrightarrow{xyz}	<code>\overrightarrow{xyz}</code>	\tilde{i}	<code>\tilde{\imath}</code>
\acute{x}	<code>\acute{x}</code>	\overbrace{xyz}	<code>\overbrace{xyz}</code>	\tilde{j}	<code>\tilde{\jmath}</code>
\grave{x}	<code>\grave{x}</code>	\underbrace{xyz}	<code>\underbrace{xyz}</code>	\mathbf{i}	<code>\vec{\imath}</code>
\dot{x}	<code>\dot{x}</code>	\widehat{xyz}	<code>\widehat{xyz}</code>	\mathbf{j}	<code>\vec{\jmath}</code>
\ddot{x}	<code>\ddot{x}</code>	\widetilde{xyz}	<code>\widetilde{xyz}</code>	\acute{i}	<code>\acute{\imath}</code>
\bar{x}	<code>\bar{x}</code>	\sqrt{xyz}	<code>\sqrt{xyz}</code>	\acute{j}	<code>\acute{\jmath}</code>
\mathbf{x}	<code>\vec{x}</code>	$\sqrt[n]{xyz}$	<code>\sqrt[n]{xyz}</code>		
\mathring{x}	<code>\mathring{x}</code>	$\frac{xyz}{ab}$	<code>\frac{xyz}{ab}</code>		
x'	<code>x'</code>				

Table A.14 Delimiter symbols (math-mode)

Symbol	command	Symbol	command	Symbol	command	Symbol	command
[<code>[</code>		<code>\vert</code>	~	<code>\rmoustache</code>	?	<code>\Lbag</code>
]	<code>]</code>		<code>\Vert</code>	AMS delimiters		?	<code>\Rbag</code>
⌊	<code>\lfloor</code>	Large delimiters		⌋	<code>\llcorner</code>	⌋	<code>\llfloor</code>
⌋	<code>\rfloor</code>		<code>\arrowvert</code>	⌌	<code>\lrcorner</code>	⌋	<code>\rrfloor</code>
⌈	<code>\lceil</code>		<code>\Arrowvert</code>	⌍	<code>\ulcorner</code>	⌈	<code>\lceil</code>
⌉	<code>\rceil</code>	,	<code>\bracevert</code>	⌎	<code>\urcorner</code>	⌈	<code>\rceil</code>
⟨	<code>\langle</code>	{	<code>\lgroup</code>	Stmaryrd delimiters		⌈	<code>\llbracket</code>
⟩	<code>\rangle</code>	}	<code>\rgroup</code>	?	<code>\lrbag</code>	⌈	<code>\rrbracket</code>
\	<code>\backslash</code>	⌋	<code>\lgroup</code>	?	<code>\rbag</code>		
		~	<code>\lgroup</code>				
		⌋	<code>\lgroup</code>				
		~	<code>\lgroup</code>				

Table A.15 Mathematical functions (math-mode)

Symbol	command	Symbol	command	Symbol	command	Symbol	command
$\arccos x$	<code>\arccos~x</code>	$\sec x$	<code>\sec~x</code>	\dim	<code>\dim</code>	\limsup	<code>\limsup</code>
$\arcsin x$	<code>\arcsin~x</code>	$\sin x$	<code>\sin~x</code>	\exp	<code>\exp</code>	\ln	<code>\ln</code>
$\arctan x$	<code>\arctan~x</code>	$\sinh x$	<code>\sinh~x</code>	\gcd	<code>\gcd</code>	\log	<code>\log</code>
$\cos x$	<code>\cos~x</code>	$\tan x$	<code>\tan~x</code>	hom	<code>\hom</code>	\max	<code>\max</code>
$\cosh x$	<code>\cosh~x</code>	$\tanh x$	<code>\tanh~x</code>	\inf	<code>\inf</code>	\min	<code>\min</code>
$\cot x$	<code>\cot~x</code>	\arg	<code>\arg</code>	\lg	<code>\lg</code>	\Pr	<code>\Pr</code>
$\coth x$	<code>\coth~x</code>	\deg	<code>\deg</code>	\lim	<code>\lim</code>	\sup	<code>\sup</code>
$\csc x$	<code>\csc~x</code>	\det	<code>\det</code>	\liminf	<code>\liminf</code>	\ker	<code>\ker</code>

Table A.16 Math-mode miscellaneous symbols

Symbol	command	Symbol	command	Symbol	command	Symbol	command
x'	<code>x'</code>	\natural	<code>\natural</code>	AMS miscellaneous		\blacktriangle	<code>\blacktriangle</code>
∂	<code>\partial</code>	$'$	<code>\prime</code>	\nexists	<code>\nexists</code>	\blacktriangledown	<code>\blacktriangledown</code>
\aleph	<code>\aleph</code>	\emptyset	<code>\emptyset</code>	\Bbbk	<code>\Bbbk</code>	\triangle	<code>\vartriangle</code>
\imath	<code>\imath</code>	∇	<code>\nabla</code>	\hbar	<code>\hbar</code>	\blacksquare	<code>\blacksquare</code>
\jmath	<code>\jmath</code>	\surd	<code>\surd</code>	\hslash	<code>\hslash</code>	\lozenge	<code>\lozenge</code>
ℓ	<code>\ell</code>	\top	<code>\top</code>	\square	<code>\square</code>	\blacklozenge	<code>\blacklozenge</code>
\wp	<code>\wp</code>	\perp	<code>\bot</code>	\mho	<code>\mho</code>	\varnothing	<code>\varnothing</code>
\Re	<code>\Re</code>	\parallel	<code>\parallel</code>	\circledS	<code>\circledS</code>	\backprime	<code>\backprime</code>
\Im	<code>\Im</code>	\sharp	<code>\sharp</code>	\Game	<code>\Game</code>	\complement	<code>\complement</code>
∞	<code>\infty</code>	\clubsuit	<code>\clubsuit</code>	\Finv	<code>\Finv</code>	\eth	<code>\eth</code>
\Box	<code>\Box</code>	\diamondsuit	<code>\diamondsuit</code>	\bigstar	<code>\bigstar</code>	AMS Hebrew	
\forall	<code>\forall</code>	\heartsuit	<code>\heartsuit</code>	\angle	<code>\angle</code>	\beth	<code>\beth</code>
\exists	<code>\exists</code>	\spadesuit	<code>\spadesuit</code>	\measuredangle	<code>\measuredangle</code>	\daleth	<code>\daleth</code>
\neg	<code>\neg</code>	\cdots	<code>\cdots</code>	\sphericalangle	<code>\sphericalangle</code>	\gimel	<code>\gimel</code>
\flat	<code>\flat</code>	\ddots	<code>\ddots</code>	\triangledown	<code>\triangledown</code>		

Bibliography

1. Goossens M, Mittelbach F, Samarin A (1994) The L^AT_EX companion. Addison-Wesley Publishing Company, Reading
2. Goossens M, Rahtz S, Mittelbach F (1997) The L^AT_EX graphics companion. Addison-Wesley Longman Inc., Reading
3. Harvey J, Greenberg A (2000) Simplified introduction to L^AT_EX. Technical report, Mathematics Department, University of Colorado at Denver. <http://www.cudenver.edu/hgreenbe>
4. Kopka H, Daly PW (1995) A guide to L^AT_EX 2_ε. Addison-Wesley, Harlow
5. Lamport L (1994) L^AT_EX: user's guide and reference manual. Pearson Education, Englewood Cliffs
6. Frank M, Michel G, Johannes B, David C, Chris R (2004) The L^AT_EX companion. Addison-Wesley, Boston
7. Oetiker T, Partl H, Hyna I, Schlegl E (2006) The not so short introduction to L^AT_EX 2_ε. Technical report. <https://www.CTAN.org/tex-archive/info/lshort>
8. Tantau T, Wright J, Miletić V (2015) The BEAMER class: user guide for version 3.36. <http://bitbucket.org/rivanvx/beamer>
9. T_EX. <http://tex.stackexchange.com>

Index

!# . . .

!, 62, 159, 169, *see also* Figure, Index, Table

\!, 22, *see also* Blank space

!, 159, *see also* Index

\"{}{o} (ö), 247, *see also* Accent (text)

~, 12, 24, 113, *see also* Blank space, Line break

\~{}{o} (ö), 247, *see also* Accent (text)

|, 67, 159, *see also* Index, Table

|{, |}, 160, *see also* Index

' ('), 102, *see also* Equation

\', 58, *see also* Tabbing

\'{}{o} (ó), 247, *see also* Accent (text)

\(\), 104, 175, *see also* Text-mode equation

***{}{}**, 64, *see also* Table

+-, 218, *see also* Slide presentation

\,, 12, 22, 24, 113, *see also* Blank space, Line break

-, **--**, **---**, 24

\-, 25, *see also* Hyphenating

\/, 10, *see also* Font shape

\;, 22, *see also* Blank space

\;, 22, *see also* Blank space

\=, 57, *see also* Tabbing

\={o} (ō), 247, *see also* Accent (text)

\>, 57, *see also* Tabbing

>{}{}, 64, *see also* Table

>{}{ }<{}{}, 64, *see also* Table

?' (i), 247, *see also* Symbol (text)

@, 160, *see also* Index

\@, 5, 25, *see also* Blank space

@{}{}, 64, 70, *see also* Table

\@addtoreset{}{}, 106, 189, 190

@article{}{}, 142, *see also* Bibliography

\@author, 187, *see also* Article

@book{}{}, 142, *see also* Bibliography

@booklet{}{}, 141, *see also* Bibliography

@conference{}{}, 141, *see also* Bibliography

\@dotsep, 155, *see also* Contents

@{\extracolsep{}{}, 185, *see also* Table

@inbook{}{}, 142, *see also* Bibliography

@incollection{}{}, 142, *see also* Bibliography

@inproceedings{}{}, 141, *see also* Bibliography

@manual{}{}, 141, *see also* Bibliography

@mastersthesis{}{}, 141, *see also* Bibliography

@misc{}{}, 142, *see also* Bibliography

@phdthesis{}{}, 141, *see also* Bibliography

@proceedings{}{}, 142, *see also* Bibliography

@techreport{}{}, 142, *see also* Bibliography

\@title, 187, *see also* Article

@unpublished{}{}, 142, *see also* Bibliography

\[\], 105, 107, *see also* Equation

[], 5, 252, *see also* Delimiter

****, 5

\# (#), 8, 247, *see also* Symbol (text)

\\$ (\$), 8, 247, *see also* Symbol (text)

\$\$, 7, 104, *see also* Text-mode equation

\$<\$ (<), 8, *see also* Keyboard character

\$>\$ (>), 8, *see also* Keyboard character

\\$backslash\$ (\), 8, *see also* Keyboard character

\\$sim\$ (~), 8, *see also* Keyboard character

%, 8

\% (%), 8, 248, *see also* Keyboard character

&, 60, 107, 110, *see also* Equation, Table

\& (&), 8, 248, *see also* Keyboard character

^, 102, *see also* Equation

\^ (^), 8, 248, *see also* Keyboard character

`\rightleftarrows` (\rightleftarrows), 251
`\rightleftharpoons` (\rightleftharpoons), 251
`\rightrightarrows` (\rightrightarrows), 251
`\rightsquigarrow` (\rightsquigarrow), 251
`\rrparentesis` (\rrparentesis), 251
`\Rsh` (\Rsh), 251
`\searrow` (\searrow), 251
`\shortdownarrow` (\shortdownarrow), 251
`\shortleftarrow` (\shortleftarrow), 297
`\shortrightarrow` (\shortrightarrow), 251
`\shortuparrow` (\shortuparrow), 251
`\ssearrow` (\ssearrow), 251
`\sswarrow` (\sswarrow), 251
`\swarrow` (\swarrow), 251
`\to` (\rightarrow), 251
`\twoheadleftarrow` (\twoheadleftarrow), 251
`\twoheadrightarrow` (\twoheadrightarrow), 251
`\Uparrow` (\Uparrow), 251
`\uparrow` (\uparrow), 251
`\Updownarrow` (\Updownarrow), 251
`\updownarrow` (\updownarrow), 251
`\upharpoonleft` (\upharpoonleft), 251
`\upharpoonright` (\upharpoonright), 251
`\upuparrows` (\upuparrows), 251
`\Arrowvert` (\Arrowvert), 252, *see also* Delimiter
`\arrowvert` (\arrowvert), 252, *see also* Delimiter
Article
`\@author`, 187
`\@title`, 187
abstract, 183
`\abstractname`, 185
amsart, 183
and, 186
article, 27, 183
`\author{}`, 183, 185
`\date{}`, 183
document, 183
`\documentclass[]{ }`
 abstract, 186
 titlepage, 186
 twocolumn, 187
`\maketitle`, 183, 186
`\onecolumn[]`, 188
`\paragraph{}`, 183
Section-wise item numbering, 106
`\section{}`, 183
`\subparagraph{}`, 183
`\subsection{}`, 183
`\subsubsection{}`, 183
`\thanks{}`, 186
`\title{}`, 183
`\twocolumn[]`, 188

article, 2, 27, 183, *see also* Article, Document
aspectratio, 214, *see also* Slide presentation
`\ast` ($*$), 103, *see also* Binary operator
`\asymp` (\asymp), 103, *see also* Relation operator
author, 142, *see also* Bibliography
`\author[]{ }`, 207, *see also* Slide presentation
`\author{}`, 183, *see also* Article
authoryear, 149, *see also* Bibliography

B b

b5paper, 3, 37, *see also* Document, Page size
b{}, 63, *see also* Table
`\b{o}` (\textcircled{o}), 247, *see also* Accent (text)
`\backepsilon` (\backepsilon), 250, *see also* Relation operator
backmatter, 191, *see also* Book
`\backprime` (\backprime), 253, *see also* Symbol (misc)
`\backsim` (\backsim), 250, *see also* Relation operator
`\backsimeq` (\backsimeq), 250, *see also* Relation operator
`\backslash` (\backslash), 252, *see also* Delimiter
`\bar{x}` (\bar{x}), 252, *see also* Accent (math)
`\baro` (\bar{o}), 249, *see also* Binary operator
`\barwedge` ($\bar{\wedge}$), 249, *see also* Binary operator
Bbb{}, 12, *see also* Font (math)
Bbbk (\mathbb{k}), 253, *see also* Symbol (misc)
`\bbslash` (\backslash), 249, *see also* Binary operator
Bcenter, 165, *see also* Boxed texts
Bdescription, 165, *see also* Boxed texts
beamer, 203, *see also* Document, Slide presentation
beamerboxedrounded, 223, *see also* Slide
`\beamerbutton{}`, 227, *see also* Slide presentation
`\beamergetobutton{}`, 227, *see also* Slide
`\beamerreturnbutton{}`, 227, *see also* Slide
beamer
`\beamerbutton{}`, 227, *see also* Slide
beaver, 211, *see also* Slide presentation
`\because` (\because), 250, *see also* Relation operator
beetle, 211, *see also* Slide presentation
`\begin{}`, 6, 176, *see also* Fragile command
`\begin{enumerate}[]`, 52, *see also* Listing
`\begin{tabular}[]{ }`, 60, *see also* Table

- `\beginngroup ... \endngroup`, 150, 151
 - `\belowcaptionskip`, 79, 89, *see also* Figure, Table
 - Benumerate**, 165, *see also* Boxed texts
 - Beqnarray**, 165, *see also* Boxed texts
 - Beqnarray***, 165, *see also* Boxed texts
 - Bergen**, 210, *see also* Slide presentation
 - Berkeley**, 210, *see also* Slide presentation
 - Berlin**, 210, *see also* Slide presentation
 - `\beta` (β), 249, *see also* Greek letter
 - `\beth` (\beth), 253, *see also* Symbol (misc)
 - `\between` (\between), 250, *see also* Relation operator
 - `{\bf}`, 10, *see also* Font series
 - Bflushleft**, 165, *see also* Boxed texts
 - Bflushright**, 165, *see also* Boxed texts
 - `\bfseries`, 10, 64, *see also* Font series
 - bfseries**, 11, *see also* Font series
 - `\bibitem[]{}`, 137, 138, *see also* Bibliography
 - Bibliography
 - BIB_TE_X, 141
 - `@article{}`, 142
 - `@book{}`, 142
 - `@booklet{}`, 142
 - `@conference{}`, 141
 - `@inbook{}`, 142
 - `@incollection{}`, 142
 - `@inproceedings{}`, 141
 - `@manual{}`, 141
 - `@mastersthesis{}`, 141
 - `@misc{}`, 141
 - `@phdthesis{}`, 141
 - `@proceedings{}`, 141
 - `@techreport{}`, 141
 - `@unpublished{}`, 141
 - `abbrv`, 147
 - `abbrvnat`, 147
 - Accented and special characters, 142
 - `acm`, 146
 - `address`, 142
 - `alpha`, 146
 - `angle`, 149
 - `apalike`, 147
 - `author`, 142, 143
 - `authoryear`, 149
 - `\bibliography{}`, 147, 150, 292
 - `\bibliographystyle{}`, 146, 150, 194
 - `bibtex`, 140
 - `booktitle`, 142
 - `chapter`, 142
 - `chapterbib`, 150
 - Citation key, 143
 - `\citealp{}`, 148
 - `\citealt{}`, 148
 - `\citeauthor{}`, 148
 - `\citep{}`, 148
 - `\citete{}`, 148
 - `\citeyear{}`, 148
 - `\citeyearpar{}`, 148
 - `colon`, 149
 - `comma`, 149
 - `curly`, 149
 - `edition`, 142
 - `editor`, 142
 - `howpublished`, 142
 - `institution`, 142
 - `journal`, 142
 - `longnamesfirst`, 149
 - `month`, 142
 - `natbib`, 147
 - `\nocite{}`, `\nocite{}`, 147
 - `note`, 142
 - `number`, 142
 - `numbers`, 149
 - `organization`, 142
 - `pages`, 142
 - `plain`, 147
 - `plainnat`, 147
 - `publisher`, 142
 - `round`, 149
 - `school`, 142
 - `series`, 142
 - `sort`, 149
 - `sort&compress`, 149
 - `square`, 149
 - `super`, 149
 - `title`, 142, 144
 - `type`, 142
 - `unsrt`, 147
 - `unsrtnat`, 147
 - `volume`, 142
 - `year`, 142
 - `\cite[]{}`, `\cite{}`, 138, 140
 - `\input{}`, 138, 150
 - L^AT_EX, 137
 - `\bibitem[]{}`, 137, 138
 - `\newblock`, 137
 - `thebibliography`, 138
 - `overcite`, 140
- `\bibliography{}`, 147, 194, *see also* Bibliography
- `\bibliographystyle{}`, 150, *see also* Bibliography
- BIB_TE_X, 141, *see also* Bibliograph

bibtex, 149, *see also* Bibliography, Compilation

`\bibname`, 129, *see also* Users macros

`\bigbox` (\square), 244, *see also* Binary operator

`\bigcirc` (\bigcirc), 103, *see also* Binary operator

`\bigcirc[{}]`, 92, *see also* Figure (drawing)

`\bigcurlyvee` (\curlyvee), 249, *see also* Binary operator

`\bigcurlywedge` (\curlywedge), 249, *see also* Binary operator

`\Bigl`, `\biggl`, 101, 102, *see also* Delimiter

`\Bigr`, `\biggr`, 101, 102, *see also* Delimiter

`\biginterleave` (\lll), 249, *see also* Binary operator

`\Bigl`, `\bigl`, 101, 102, *see also* Delimiter

`\bignplus` (\plus), 249, *see also* Binary operator

`\bigparallel` (\parallel), 249, *see also* Binary operator

`\Bigr`, `\bigr`, 101, 102, *see also* Delimiter

`\bigskip`, 22, *see also* Blank space

`\bigsqcap` (\sqcap), 249, *see also* Binary operator

`\bigstar` (\star), 253, *see also* Symbol (misc)

`\bigtriangledown` (∇), 103, *see also* Binary operator

`\bigtriangleup` (\triangle), 249, *see also* Binary operator

`\binampersand` ($\&$), 249, *see also* Binary operator

Binary operator (math-mode)

`\amalg` (\amalg), 103

`\ast` ($*$), 103

`\baro` (ϕ), 249

`\barwedge` ($\bar{\wedge}$), 249

`\bbslash` (\backslash), 249

`\bigbox` (\square), 249

`\bigcirc` (\bigcirc), 103

`\bigcurlyvee` (\curlyvee), 249

`\bigcurlywedge` (\curlywedge), 249

`\biginterleave` (\lll), 249

`\bignplus` (\plus), 249

`\bigparallel` (\parallel), 249

`\bigsqcap` (\sqcap), 249

`\bigtriangledown` (∇), 103, 249

`\bigtriangleup` (\triangle), 103, 249

`\binampersand` ($\&$), 249

`\bindasrepma` (\otimes), 249

`\boxast` (\boxtimes), 249

`\boxbar` (\boxbar), 249

`\boxbox` (\boxbox), 249

`\boxbslash` (\boxslash), 249

`\boxcircle` (\boxcircle), 249

`\boxdot` (\boxdot), 249

`\boxempty` (\square), 249

`\boxminus` (\boxminus), 249

`\boxplus` (\boxplus), 249

`\boxslash` (\boxslash), 249

`\boxtimes` (\boxtimes), 249

`\bullet` (\bullet), 103

`\Cap` (\cap), 249

`\cap` (\cap), 103

`\cdot` (\cdot), 103

`\circ` (\circ), 103

`\circledast` (\circledast), 249

`\circledcirc` (\circledcirc), 249

`\circleddash` (\circ), 249

`\Cup` (\cup), 249

`\cup` (\cup), 103

`\curlyvee` (\curlyvee), 249

`\curlyveedownarrow` (\curlyvee), 249

`\curlyveeuparrow` (\curlyvee), 249

`\curlywedge` (\curlywedge), 249

`\curlywedgedownarrow` (\curlywedge), 249

`\curlywedgeuparrow` (\curlywedge), 249

`\dagger` (\dagger), 103

`\ddagger` (\ddagger), 103

`\Diamond` (\diamond), 103

`\diamond` (\diamond), 103

`\div` (\div), 103

`\divideontimes` (\oslash), 249

`\dotplus` ($\dot{+}$), 249

`\doublebarwedge` ($\overline{\wedge}$), 249

`\fatbslash` (\backslash), 249

`\fatsemi` (\S), 249

`\fatslash` ($\//$), 249

`\iiint` (\iiint), 249

`\iiint\limits_v` (\iiint_v), 249

`\iint` (\iint), 249

`\iint\limits_s` (\iint_s), 249

`\intercal` (\intercal), 249

`\interleave` (\lll), 249

`\leftslice` (\leftarrow), 249

`\leftthreetimes` (\leftarrow), 249

`\lhd` (\triangleleft), 103

`\ltimes` (\ltimes), 249

`\merge` (\M), 249

`\minuso` (\ominus), 249

`\moo` (\oplus), 249

`\mp` (\mp), 103

`\nplus` (\nplus), 249

`\obar` (\oslash), 249

`\oblong` (\square), 249

`\obslash` (\oslash), 249

- `\odot` (⊙), 103
- `\ogreaterthan` (⊗), 249
- `\olessthan` (⊖), 249
- `\ominus` (⊖), 103
- `\oplus` (⊕), 103
- `\oslash` (∅), 103
- `\otimes` (⊗), 103
- `\ovee` (⊗), 249
- `\owedge` (⊗), 249
- `\pm` (±), 103
- `\rhd` (▷), 103
- `\rightslice` (⊃), 249
- `\righthreetimes` (⋈), 249
- `\rtimes` (⋈), 249
- `\setminus` (∖), 103
- `\smallsetminus` (∖), 249
- `\sqcap` (⊓), 103
- `\sqcup` (⊔), 103
- `\sslash` (//), 249
- `\star` (★), 103
- `\talloblong` (⏐), 249
- `\times` (×), 103
- `\triangle` (Δ), 103
- `\triangleleft` (◁), 103
- `\trianglelefteq` (◁), 103
- `\triangleright` (▷), 103
- `\unlhd` (◁), 103
- `\unrhd` (▷), 103
- `\uplus` (⊕), 103
- `\varbigcirc` (○), 249
- `\varcurlyvee` (∨), 249
- `\varcurlywedge` (∧), 249
- `\varoast` (⊗), 249
- `\varobar` (⊕), 249
- `\varobslash` (⊗), 249
- `\varocircle` (⊙), 249
- `\varodot` (⊙), 249
- `\varogreaterthan` (⊗), 249
- `\varolessthan` (⊖), 249
- `\varominus` (⊖), 249
- `\varoplus` (⊕), 249
- `\varoslash` (∅), 249
- `\varotimes` (⊗), 249
- `\varovee` (⊗), 249
- `\varowedge` (⊗), 249
- `\vartimes` (⋈), 249
- `\vee` (∨), 103
- `\veebar` (∨), 249
- `\wedge` (∧), 103
- `\wr` (ι), 103
- `\Ydown` (∕), 249
- `\Yleft` (←), 249
- `\Yright` (→), 249
- `\Yup` (∧), 249
- `\bindnasrepma` (⌘), 249, *see also* Binary operator
- `\binom{}{}{}`, 102, *see also* Equation
- Bitemize**, 165, *see also* Boxed texts
- black**, 14, *see also* Font (color)
- `\blacklozenge` (◆), 253, *see also* Symbol (misc)
- `\blacksquare` (■), 253, *see also* Symbol (misc)
- `\blacktriangle` (▲), 253, *see also* Symbol (misc)
- `\blacktriangledown` (▼), 253, *see also* Symbol (misc)
- `\blacktriangleleft` (◄), 250, *see also* Relation operator
- `\blacktriangleright` (►), 250, *see also* Relation operator
- Blank line, 19, *see also* New line
- Blank space
 - `\!`, 22
 - `~`, 12, 25, 113
 - `\.`, 12, 22, 24, 113
 - `\:`, 22
 - `\;`, 22
 - `\@`, 25
 - `\bigskip`, 22
 - `\hfill`, 22, 73
 - `\hspace*{}{}`, `\hspace*{\fill}`, 23, 182
 - `\hspace{}{}`, 12, 22, 73, 113
 - `\medspace`, 22
 - `\quad`, 22, 113
 - `\quad`, 22, 113
 - `\thickspace`, 22
 - `\thinspace`, 22
 - `\vfill`, 22
 - `\vskip`, 22
 - `\vspace*{}{}`, `\vspace*{\fill}`, 23, 195
 - `\vspace{}{}`, 22
- block**, 223, *see also* Slide presentation
- blue**, 14, *see also* Font (color)
- bmatrix**, 117, *see also* Equation
- `\bmod{}{}`, 102, *see also* Equation
- Boadilla**, 210, *see also* Slide presentation
- Body, 2, *see also* Document
- `\boldmath{}{}`, 11, 114, *see also* Font (math)
- `\boldsymbol{}{}`, 248, *see also* Symbol (math)
- Book
 - `\addcontentsline{}{}{}`, 196, 197
 - `appendix`, 197
 - `\appendix`, 197
 - `\backmatter`, 191

- book**, 27, 191
 - `\chapter*`{}, 192
 - `\chapter`{}, 192
 - `\chaptername`, 197
 - `\cleardoublepage`, 191, 197
 - Compilation, 198
 - document**, 195
 - `\documentclass`[{}], 195, *see also* Document
 - `\frontmatter`, 191
 - `\include`{}, 193, 196
 - `\includeonly`{}, 201
 - `\input`{}, 193, 196
 - `\listoffigures`, 197, *see also* Contents
 - `\listoftables`, 197, *see also* Contents
 - `\mainmatter`, 191
 - openany**, 195
 - `\pagenumbering`{}, 192, 198
 - `\part`{}, 198
 - Partial compilation, 201
 - Root file, 192
 - `\tableofcontents`, 192, 197, *see also* Contents
 - `\thechapter`, 198, *see also* Sectional unit
 - `\thepart`, 198, *see also* Sectional unit
 - `\thispagestyle`{}, 191, 196
 - titlepage**, 195
 - twoside**, 191
 - book**, 2, 27, 191, *see also* Book, Document
 - booktabs**, 65, *see also* Table
 - booktitle**, 142, *see also* Bibliography
 - `\bot`(⊥), 253, *see also* Symbol (misc)
 - `\bottomrule`[], 65, *see also* Table
 - `\bowtie`(⋈), 103, *see also* Relation operator
 - `\Box`(□), 253, *see also* Symbol (misc)
 - `\boxast`(⊠), 249, *see also* Binary operator
 - `\boxbar`(⊞), 249, *see also* Binary operator
 - `\boxbox`(⊞), 249, *see also* Binary operator
 - `\boxslash`(⊞), 249, *see also* Binary operator
 - `\boxcircle`(⊞), 249, *see also* Binary operator
 - `\boxdot`(⊞), 249, *see also* Binary operator
 - boxed**, 133, *see also* Users macros
 - Boxed texts
 - Bcenter**, 165
 - Bdescription**, 165
 - Benumerate**, 165
 - Beqnarray**, 165
 - Beqnarray***, 165
 - Bflushleft**, 165
 - Bflushright**, 165
 - Bitemize**, 165
 - `\boxed`{}, 163
 - boxedminipage**, 164
 - color, 162
 - `\colorbox`{}{}, 162
 - `\doublebox`{}, 161
 - equation, 163, 165
 - `\fbox`{}, 161
 - `\fboxrule`{}, 161
 - `\fboxsep`{}, 161
 - `\fcolorbox`{}{}, 162
 - `\frame`{}, 162
 - `\framebox`[I][{}], 162
 - `\hspace`{0pt}, 164
 - `\makebox`[I][{}], 162
 - `\Ovalbox`{}, `\ovalbox`{}, 161
 - `\parbox`[I][{}], 164, 167
 - rotate, 167
 - `\shabox`{}, 161
 - `\shadowbox`{}, 161
 - sideways, 166
 - tabular, 165
 - turn, 167
 - `\boxed`{}, 163, *see also* Boxed texts
 - boxedminipage**, 32, 164, *see also* Mini page
 - boxedverbatim**, 174, *see also* Verbatim text
 - `\boxempty`(□), 249, *see also* Binary operator
 - boxes**, 210, *see also* Slide presentation
 - `\boxminus`(⊖), 249, *see also* Binary operator
 - `\boxplus`(⊕), 249, *see also* Binary operator
 - `\boxslash`(⊞), 249, *see also* Binary operator
 - `\boxtimes`(⊗), 249, *see also* Binary operator
 - `\bracket`(), 252, *see also* Delimiter
 - break**, 132, *see also* Users macros
 - `\breve`{x}(˘), 252, *see also* Accent (math)
 - `\bullet`(●), 103, *see also* Binary operator
 - `\Bumpeq`(≈), 250, *see also* Relation operator
 - `\bumpeq`(≈), 250, *see also* Relation operator
- ## C c
- `\c{o}`(ç), 247, *see also* Accent (text)
 - CambridgeUS**, 210, *see also* Slide presentation
 - `\Cap`(Ⓜ), 249, *see also* Binary operator

- `\cap` (\cap), 103, *see also* Binary operator
- `\caption[{}]`, 60, 76, 92, 154, *see also* Figure, Table
- `\captionsetup{}`, 79, 89, *see also* Figure, Table
- cases**, 114, *see also* Equation
- `\cc{}`, 181, *see also* Letter
- `\cdot` (\cdot), 72, 103, 171, *see also* Dots, Symbol (misc)
- `\cdots` (\cdots), 171, 253, *see also* Dots, Symbol (misc)
- `\cellcolor[gray]{}{}`, 68, *see also* Table
- `\cellcolor{}`, 68, *see also* Table
- center**, 18, *see also* Alignment
- `\centering`, 18, 60, 82, 176, *see also* Alignment, Fragile command, Figure, Table
- `\centering\arraybackslash`, 61, *see also* Table
- `\tfoot[{}]`, 43, 212, *see also* Page style
- chapter**, 29, 142, 154, *see also* Bibliography, Contents, Sectional unit
- `\chapter*{}`, 16, 27, 192, *see also* Sectional unit
- `\chapter[{}]`, 15, 27, 154, 192, *see also* Contents
- chapterbib**, 150, *see also* Bibliography
- `\chaptermark`, 42, *see also* Sectional unit
- `\chaptername`, 28, 42, 129, 236, *see also* Sectional unit, Users macros
- `\thead[{}]`, 43, 177, *see also* Page style
- `\check{x}` (\check{x}), 252, *see also* Accent (math)
- `\chi` (χ), 249, *see also* Greek letter
- `\circ` (\circ), 103, *see also* Binary operator
- `\circeq` (\doteq), 250, *see also* Relation operator
- `\circle*{}`, 92, *see also* Figure (drawing)
- `\circle{}`, 92, *see also* Figure (drawing)
- `\circlearrowleft` (\curvearrowleft), 251, *see also* Arrow
- `\circlearrowright` (\curvearrowright), 251, *see also* Arrow
- `\circledast` (\circledast), 249, *see also* Binary operator
- `\circledcirc` (\circledcirc), 249, *see also* Binary operator
- `\circleddash` (\circleddash), 249, *see also* Binary operator
- `\circledS` (\circledS), 253, *see also* Symbol (misc)
- circles**, 212, *see also* Slide presentation
- Citation key, 143, *see also* Bibliography
- `\cite[{}]`, 140, *see also* Bibliography
- `\cite{}`, 138, *see also* Bibliography
- `\citealp{}`, 148, *see also* Bibliography
- `\citealt{}`, 148, *see also* Bibliography
- `\citeauthor{}`, 148, *see also* Bibliography
- `\citep{}`, 148, *see also* Bibliography
- `\citet{}`, 148, *see also* Bibliography
- `\citeyear{}`, 148, *see also* Bibliography
- `\citeyearpar{}`, 148, *see also* Bibliography
- `\cleardoublepage`, 46, 191, 196, *see also* Page break
- `\clearpage`, 46, *see also* Page break
- `\cline{}`, 65, 67, *see also* Table
- `\closecurve[{}]`, 95, *see also* Figure (drawing)
- `\closing{}`, 181, *see also* Letter
- `\clubsuit` (\clubsuit), 253, *see also* Symbol (misc)
- cm** (centimeter), 23, 91, *see also* Length
- cmymk**, 14, *see also* Font (color)
- color**, 149, *see also* Bibliography
- color**, 13, 162, *see also* Boxed texts, Font (color)
- Color theme, 210, *see also* Slide presentation
- `\color<>[{}]{}`, 220, *see also* Slide presentation
- `\colorbox{{}{}`, 162, *see also* Boxed texts
- `\colorbl`, 68, *see also* Table
- `\column{}`, 226, *see also* Slide presentation
- `\columncolor[gray]{}{}`, 68, *see also* Table
- `\columncolor{}[[]]`, 68, *see also* Table
- columns**, 226, *see also* Slide presentation
- `\columnsep`, 30, 38, *see also* Page layout
- `\columnseprule`, 30, 38, *see also* Page layout
- `\columnwidth`, 30, 63, *see also* Page layout, Table
- comma**, 149, *see also* Bibliography
- Command, 5
- compactitem**, 135, *see also* Listing
- Compilation
 - bibtex, 149, 151, 199
 - dvipdf, 4
 - dvips, 4
 - latex, 4, 81, 140, 149, 151, 160, 199
 - makeindex, 160, 199
 - pdflatex, 5, 81
- `\complement` (\complement), 253, *see also* Symbol (misc)
- `\cong` (\cong), 103, *see also* Relation operator
- containsverbatim**, 204, *see also* Slide presentation
- Contents
 - `\@dotsep`, 155
 - `\addcontentsline{}{}{}`, 154, 196
 - `\addtocontents{}{}`, 155
 - appendices**, 155
 - chapter**, 154
 - `\chapter[{}]`, 156

`\contentsname`, 154
`\dominitoc`, 156
`\faketableofcontents`, 158
`\listfigurename`, 154
`\listoffigures`, 153, 154, 197
`\listoftables`, 153, 154, 197
`\listtablename`, 154
`lof`, 154
`lofdepth`, 155
`lot`, 154
`lotdepth`, 155
`\minitoc`, 156
`minitocdepth`, 156
Multiple contents lists, 156
`\phantomsection`, 154
`\tableofcontents`, 153, 154, 192, 197
`titletoc`, 155
`toc`, 154
`tocdepth`, 155
`\contentsname`, 129, 154, *see also* Contents
Copenhagen, 210, *see also* Slide presentation
`\copyright` (©), 248, *see also* Symbol (text)
Corollary, 132, *see also* Users macros
corollary, 224, *see also* Slide presentation
`\cos~x` (cos x), 252, *see also* Function
(math)
`\cosh~x` (cosh x), 252, *see also* Function
(math)
`\cot~x` (cot x), 252, *see also* Function
(math)
`\coth~x` (coth x), 252, *see also* Function
(math)
crane, 211, *see also* Slide presentation
`\csc~x` (csc x), 252, *see also* Function
(math)
`\Cup` (⊃), 249, *see also* Binary operator
`\cup` (∪), 103, *see also* Binary operator
curly, 149, *see also* Bibliography
`\curlyeqprec` (≲), 250, *see also* Relation
operator
`\curlyeqsucc` (≳), 250, *see also* Relation
operator
`\curlyvee` (∨), 249, *see also* Binary opera-
tor
`\curlyveedownarrow` (∇), 249, *see also*
Binary operator
`\curlyveeuparrow` (∇), 249, *see also*
Binary operator
`\curlywedge` (∧), 249, *see also* Binary
operator

`\curlywedgedownarrow` (∇), 249, *see also*
Binary operator
`\curlywedgeuparrow` (∇), 249, *see also*
Binary operator
currentsection, 217, *see also* Slide presen-
tation
currentsubsection, 218, *see also* Slide presen-
tation
currenttime, 173, *see also* Time
`\curve[]`, 95, *see also* Figure (drawing)
`\curvearrowleft` (↶), 251, *see also* Arrow
`\curvearrowright` (↷), 251, *see also*
Arrow
curves, 92, 95, *see also* Figure (drawing)
cyan, 14, *see also* Font (color)

D d

`D{}{}`, 71, *see also* Table
`\dag` (†), 248, *see also* Symbol (text)
`\dagger` (†), 103, *see also* Binary operator
`\daleth` (∗), 253, *see also* Symbol (misc)
Darmstadt, 210, *see also* Slide presentation
`\dashbox{}()[]`, 99, *see also* Figure
(drawing)
Dashes (–, --, ---), 24
`\dashv` (⊥), 103, *see also* Relation operator
Date
`\dateseparator`, 172
`datetime`, 172
`dayofweek`, 172
`\ddmmydate`, 172
`\ddmmyyyydate`, 172
`\dmyydate`, 172
`\dmyyyydate`, 172
`\longdate`, 172
`\mdyydate`, 172
`\mdyyydate`, 172
`\mmdyydate`, 172
`\mmdyyydate`, 172
`\monthname[]`, 172
`\newdateformat{}{}`, 172
`nodayofweek`, 172
`\ordinaldate{}`, 172
`\shortdate`, 172
`\shortmonthname[]`, 172
`\textdate`, 172
`\THEDAY`, 172
`\THEMONTH`, 172
`\today`, 172, 182
`\twodigit{}`, 172
`\usdate`, 172
`\date[]{}{}`, 207, *see also* Slide presentation

- `\date{}`, 182, 183, *see also* Article, Letter
- `\dateseparator`, 172, *see also* Date
- `datetime`, 172, *see also* Date
- `dayofweek`, 172, *see also* Date
- `dcolumn`, 71, *see also* Table
- `\ddag` (‡), 248, *see also* Symbol (text)
- `\ddagger` (‡), 103, *see also* Binary operator
- `\ddddot{x}` ($\ddot{\ddot{x}}$), 102, *see also* Equation
- `\dddotted{x}` ($\ddot{\ddot{\ddot{x}}}$), 102, *see also* Equation
- `\ddmmyydate`, 172, *see also* Date
- `\ddmmyyyydate`, 172, *see also* Date
- `\ddot{x}` (\ddot{x}), 252, *see also* Accent (math)
- `\ddots` (\ddots), 253, *see also* Symbol (misc)
- Decimal point alignment, 71, *see also* Table
- `\def\figurename{}`, 89, *see also* Figure
- `\def\tablename{}`, 79, *see also* Table
- default**, 210–213, *see also* Slide presentation
- `\definecolor{}{}{}`, 14, *see also* Font (color)
- Definition, 132, *see also* Users macros
- definition, definitions**, 224, *see also* Slide
- `\deg` (deg), 252, *see also* Function (math)
- `delarray`, 109, *see also* Delimiter, Equation
- Delimiter
 - [] ([]), 252
 - `\Arrowvert` (||), 252
 - `\arrowvert` (|), 252
 - `\backslash` (\), 252
 - `\Bigg`, 101
 - `\bigg`, 101
 - `\Big`, 101
 - `\big`, 101
 - `\bracevert` (}), 252
 - `delarray`, 109
 - `\langle` (⟨), 252
 - `\Lbag` (⌊), 252
 - `\lbag` (⌋), 252
 - `\lceil` (⌈), 252
 - `\left`, 101
 - `\lfloor` (⌋), 252
 - `\lgroup` ((), 252
 - `\llbracket` (⌈⌈), 252
 - `\lceil` (⌈), 252
 - `\llcorner` (⌋⌋), 252
 - `\llfloor` (⌋⌋), 252
 - `\loustache` (⌋), 252
 - `\lrcorner` (⌋), 252
 - `\rangle` (⟩), 252
 - `\Rbag` (⌋), 252
 - `\rbag` (⌈), 252
 - `\rceil` (⌈), 252
 - `\rfloor` (⌈), 252
 - `\rgroup` ()), 252
 - `\right`, 101
 - `\rmoustache` (⌈), 252
 - `\rceil` (⌈), 252
 - `\rrfloor` (⌈⌈), 252
 - `\ulcorner` (⌈), 252
 - `\urcorner` (⌈), 252
 - `\Vert` (||), 252
 - `\vert` (|), 252
- `\Delta` (Δ), 293, *see also* Greek letter
- `\delta` (δ), 293, *see also* Greek letter
- description**, 49, 54, 55, *see also* Listing
- `\descriptionlabel`, 55, *see also* Listing
- `\det` (det), 252, *see also* Function (math)
- `\Diamond` (\diamond), 103, *see also* Binary operator
- `\diamond` (\diamond), 103, *see also* Binary operator
- `\diamondpar{}`, 179, *see also* Paragraph
- `\diamondsuit` (\diamond), 253, *see also* Symbol (misc)
- `\digamma` (\digamma), 249, *see also* Greek letter
- `\dim` (dim), 252, *see also* Function (math)
- `\displaybreak[]`, 107, *see also* Equation
- `displaymath`, 105, 107, *see also* Equation
- `\div` (\div), 103, *see also* Binary operator
- `\divideontimes` (\oslash), 249, *see also* Binary operator
- `\dmyydate`, 172, *see also* Date
- `\dmyyyydate`, 172, *see also* Date
- Document
 - Body, 2
 - document**, 2, 183
 - `\documentclass[]{ }`, 2, 195
 - 10pt, 11pt, 12pt, 3
 - a4paper, a5paper, 3, 37
 - amsart, 2, 183
 - article, 2, 27, 183
 - b5paper, 3, 37
 - beamer, 204
 - book, 2, 27, 191
 - draft, 3, 90
 - executivepaper, 3, 37
 - final, 3
 - fleqn, 3, 106, 110
 - landscape, 3, 37
 - legalpaper, 3, 37
 - leqno, 3, 106
 - letter, 2, 27, 181
 - letterpaper, 3, 37
 - notitlepage, 3
 - onecolumn, 3, 29

oneside, 3
openany, 3, 195
openbib, 3
openright, 3
portrait, 3, 37
report, 2, 27, 191
titlepage, 3
twocolumn, 3, 29, 30
twoside, 3, 191
multicols, 30
\part{}, 189, 198
 Preamble, 2
titlepage, 195
\twocolumn[], 29, 30
document, 2, 183, 195, *see also* Document
\documentclass[]{ }, 2, 195, *see also* Document
dolphin, 211, *see also* Slide presentation
\dominitoc, 158, *see also* Contents
\dot{x}(\dot{x}), 102, 252, *see also* Accent (math)
\doteq(\doteq), 103, *see also* Relation operator
\doteqdot(\doteqdot), 250, *see also* Relation operator
\dotfill, 23
\dotplus($\dot{+}$), 249, *see also* Binary operator
 Dots
\cdot(\cdot), 171
\cdots(\cdots), 171
\dots(\dots), 171
\dotsb(\dotsb), 171
\dotsc(\dotsc), 171
\dotsi(\dotsi), 171
\dotsm(\dotsm), 171
\ldots(\ldots), 171
\doublebarwedge($\overline{\overline{\wedge}}$), 249, *see also* Binary operator
\doublebox{ }, 161, *see also* Boxed texts
dove, 211, *see also* Slide presentation
\Downarrow(\Downarrow), 251, *see also* Arrow
\downarrow(\downarrow), 251, *see also* Arrow
\downdownarrows(\Downarrow), 251, *see also* Arrow
\downharpoonleft(\Downarrow), 251, *see also* Arrow
\downharpoonright(\Downarrow), 251, *see also* Arrow
draft, 3, 90, *see also* Document
draftwatermark, 177, *see also* Watermarking
Dresden, 210, *see also* Slide presentation
dvipdf, 4, *see also* Compilation
dvips, 4, *see also* Compilation

E e

EastLansing, 210, *see also* Slide presentation
edition, 142, *see also* Bibliography
editor, 142, *see also* Bibliography
\ell(ℓ), 253, *see also* Symbol (misc)
{\em}, 10, *see also* Font shape
em(Width of M), 23, 91, *see also* Length
\emph{ }, 10, *see also* Font shape
 Emphasized texts
{\em}, 12
\emph{ }, 12
\normalem, 12
\sout{ }, 12
ulem, 12
\ULforem, 12
\underline{ }, 12
\uwave{ }, 12
\xout{ }, 12
empty, 40, *see also* Page style
\emptyset(\emptyset), 253, *see also* Symbol (misc)
\encl{ }, 182, *see also* Letter
\end{ }, 6
\endfirsthead, 76, *see also* Table
endfloat, 80, *see also* Figure, Table
\endfoot, 76, *see also* Table
\endgroup, 151
\endhead, 76, *see also* Table
\endlastfoot, 77, *see also* Table
\endnote{ }, 35, *see also* Foot note
\enlargethispage{ }, 40, *see also* Page size
\enlargethispage*{ }, 40, *see also* Page size
\enspace, 113, *see also* Equation
\ensuremath{ }, 126, *see also* Equation
enumerate, 49, 52, 55, *see also* Listing
enumi, **enumii**, **enumiii**, 51, *see also* Listing
enumitem, 56, *see also* Listing
enumiv, 51, *see also* Listing
 Environment, 6
abstract, 183, *see also* Article
alertblock, 223, *see also* Slide presentation
align, 107, *see also* Equation
align*, 107, *see also* Equation
alignat, 107, 123, *see also* Equation
alignat*, 107, *see also* Equation
aligned, 123, *see also* Equation
allt, 175, *see also* Verbatim text
amssymb, 7, *see also* Symbol (math)
appendices, 155, *see also* Contents
appendix, 197, *see also* Book

- array**, 107, 115, *see also* Equation, Table
- Bcenter**, 165, *see also* Boxed texts
- Bdescription**, 165, *see also* Boxed texts
- beamerboxesrounded**, 223, *see also* Slide
- Benumerate**, 165, *see also* Boxed texts
- Beqnarray**, 165, *see also* Boxed texts
- Beqnarray***, 165, *see also* Boxed texts
- Bflushleft**, 165, *see also* Boxed texts
- Bflushright**, 165, *see also* Boxed texts
- bfseries**, 11, *see also* Font series
- Bitemize**, 165, *see also* Boxed texts
- block**, 223, *see also* Slide presentation
- bmatrix**, 117, *see also* Equation
- boxedminipage**, 32, 164, *see also* Boxed texts
- boxedverbatim**, 174, *see also* Verbatim text
- cases**, 115, *see also* Equation
- center**, 18, *see also* Alignment
- columns**, 226, *see also* Slide presentation
- compactitem**, 135, *see also* Listing
- corollary**, 224, *see also* Slide presentation
- definition, definitions**, 224, *see also* Slide
- description**, 49, 54, *see also* Listing
- displaymath**, 105, 107, *see also* Equation
- document**, 2, 195, *see also* Document
- enumerate**, 49, *see also* Listing
- eqnarray**, 101, 107, *see also* Equation
- eqnarray***, 107, *see also* Equation
- equation**, 101, 104, 107, 163, *see also* Equation
- equation***, 105, *see also* Equation
- example**, 224, *see also* Slide presentation
- exampleblock**, 223, *see also* Slide presentation
- examples**, 224, *see also* Slide presentation
- fact**, 224, *see also* Slide presentation
- figure, figure***, 31, 82, 89, *see also* Figure
- figwindow**, 178, *see also* Paragraph
- flalign, flalign***, 110, *see also* Equation
- flushleft**, 18, *see also* Alignment
- flushright**, 18, *see also* Alignment
- frame**, 203, *see also* Slide presentation
- gather, gather***, 107, *see also* Equation
- gathered**, 123, *see also* Equation
- invisibleenv**, 223, *see also* Slide presentation
- itemize**, 49, 53, *see also* Listing
- letter**, 181, *see also* Letter
- listing**, 174, *see also* Verbatim text
- longtable**, 59, 76, *see also* Table
- math**, 104, *see also* Text-mode equation
- matrix**, 117, *see also* Equation
- minipage**, 32, 73, 84, *see also* Mini page
- multicols**, 30, *see also* Document
- multiline, multiline***, 115, *see also* Equation
- picture**, 91, *see also* Figure (drawing)
- pmatrix**, 117, *see also* Equation
- proof**, 224, *see also* Slide presentation
- quotation**, 19, *see also* Quoted text
- quote**, 19, *see also* Quoted text
- rotate**, 166, *see also* Boxed texts
- sideways**, 62, 75, 166, *see also* Table
- sidewaysfigure**, 87, *see also* Figure
- sidewaystable**, 59, 75, *see also* Table
- singlespace**, 19, *see also* Line spacing
- sloppypar**, 25, *see also* Hyphenating
- smallmatrix**, 117, *see also* Equation
- spacing**, 6, 19, 182, 197, *see also* Line spacing
- split**, 116, *see also* Equation
- subequations**, 111, *see also* Equation
- tabbing**, 57, *see also* Tabbing
- table, table***, 31, 59, 60, 78, *see also* Table
- tabular**, 59, 165, *see also* Table
- tabularx**, 6, 59, 60, *see also* Table
- tabwindow**, 178, *see also* Paragraph
- thebibliography**, 137, *see also* Bibliography
- theorem**, 224, *see also* Slide presentation
- titlepage**, 195, *see also* Book, Document
- turn**, 75, 167, *see also* Boxed texts, Table
- uncoverenv**, 223, *see also* Slide presentation
- verbatim**, 135, 173, *see also* Verbatim text
- visibleenv**, 223, *see also* Slide presentation
- Vmatrix, vmatrix**, 117, *see also* Equation
- window**, 178, *see also* Paragraph
- wrapfigure**, 86, *see also* Figure
- wraptable**, 59, 68, *see also* Table
- xalignat, xalignat**, 108, *see also* Equation

- epsfig**, 81, 90, *see also* Figure
- `\epsfig{}`, 81, 82, 225, *see also* Figure
- \epsilon** (ϵ), 249, *see also* Greek letter
- `\eqcirc` (\equiv), 250, *see also* Relation operator
- eqnarray**, **eqnarray***, 101, 107, *see also* Equation
- `\eqref{}`, 104, *see also* Equation
- `\eqslantgtr` (\gg), 250, *see also* Relation operator
- `\eqslantless` (\leq), 250, *see also* Relation operator
- Equation
- `\(\)`, 104, *see also* Text-mode equation
 - `\[\]`, 105, 107
 - \$\$**, 104, *see also* Text-mode equation
 - &**, 107, 110
 - ^**, 102
 - _**, 102
 - **, 107
 - `\[\]`, 107
 - align**, **align***, 107
 - alignat**, **alignat***, 107, 123
 - aligned**, 123
 - amsmath**, 101
 - amssymb**, 101
 - array**, 107, 115
 - `\arraycolsep`, 109
 - `\binom{ }{ }`, 102
 - bmatrix**, 117
 - `\bmod{}`, 102
 - `\boldmath{}`, 113
 - cases**, 115
 - delarray**, 109
 - `\displaybreak[]`, 107
 - displaymath**, 105, 107
 - `\enspace`, 113
 - `\ensuremath{}`, 126
 - eqnarray**, **eqnarray***, 101, 107
 - `\eqref{}`, 104
 - equation**, **equation***, 101, 104, 105, 107
 - Equation sub-numbering, 111
 - flalign**, **flalign***, 110
 - fleqn**, 106, 110
 - `\frac{ }{ }`, 102
 - gather**, **gather***, 107
 - gathered**, 123
 - `\hdotsfor[]{ }`, 119
 - `\idotsint` ($\int \cdots \int$), 102
 - `\iiint`, 102
 - `\iint`, 102
 - `\iint`, 102
 - `\iint\limits_.`, 102
 - `\intertext{}`, 107, 109
 - `\label{}`, 104, 109
 - `\lefteqn{}`, 117
 - leqno**, 106
 - `\lim_.`, 102
 - math**, 104, *see also* Text-mode equation
 - `\mathindent`, 106
 - `\mathrm{}`, 113
 - matrix**, 117
 - `\MaxMatrixCols{}`, 117
 - `\mbox{}`, 113, 126
 - `\mod{}`, 102
 - multline**, **multline***, 115
 - nonumber**, 105, 108
 - notag**, 105, 108
 - `\overset{ }{ }`, 121, *see also* Stacking
 - `\partial{}` (∂), 102
 - pmatrix**, 117
 - `\pmod{}`, 102
 - `\pod{}`, 102
 - `\sb{}`, 176
 - `\sideset{ }{ }`, 122, *see also* Stacking
 - smallmatrix**, 117
 - `\sp{}`, 176
 - split**, 116
 - `\sqrt{}`, 102
 - `\sqrt[]{ }`, 102
 - Stacking, 120
 - `\stackrel{ }{ }`, 120, *see also* Stacking
 - subarray**, 122, *see also* Stacking
 - subequations**, 111
 - `\substack{}`, 122, *see also* Stacking
 - sum**, 102
 - `\sum_.`, 102
 - `\tag{}`, `\tag*`, 105, 109
 - `\text{}`, 113
 - `\theequation`, 107, 189
 - `\underset{ }{ }`, 102, 121, *see also* Stacking
 - Vector, 117
 - Vmatrix**, **vmatrix**, 117
 - xalignat**, **xxalignat**, 107
- equation**, **equation***, 101, 104, 163, *see also* Equation
- Equation sub-numbering, 111, *see also* Equation
- `\equiv` (\equiv), 103, *see also* Relation operator
- Error message, 231
- \eta** (η), 249, *see also* Greek letter
- \eth** (\eth), 253, *see also* Symbol (misc)
- \evensidemargin**, 38, *see also* Page layout
- ex** (width of x), 23, *see also* Length
- example**, 224, *see also* Slide presentation

exampleblock, 223, *see also* Slide presentation
examples, 224, *see also* Slide presentation
executivepaper, 3, 37, *see also* Page size
`\exists` (\exists), 102, 253, *see also* Symbol (misc)
`\exp` (exp), 252, *see also* Function (math)
`\extrarowheight`, 65, *see also* Table

F f

fact, 224, *see also* Slide presentation
`\faketableofcontents`, 158, *see also* Contents
`\fallingdotseq` (\fallingdotseq), 250, *see also* Relation operator
fancy, 41, 43, 178, *see also* Page style
fancybox, 162, 165, *see also* Boxed texts
`\[`{}, 46, 178, *see also* Page style
fancyhdr, 41, 46, 178, *see also* Page style
`\fancyhead`[], 46, 178, *see also* Page style
fancyheadings, 41, 43, 178, *see also* Page style
fancyvrb, 204, *see also* Slide presentation
`\fatbslash` (\fatbslash), 249, *see also* Binary operator
`\fatsemi` (§), 249, *see also* Binary operator
`\fatslash` (\fatslash), 249, *see also* Binary operator
`\fbox`{}, 161, *see also* Boxed texts
`\fboxrule`{}, 161, *see also* Boxed texts
`\fboxsep`{}, 161, *see also* Boxed texts
`\fcolorbox`{}{} {}, 162, *see also* Boxed texts
Figure
`!hbt`, 82
`\abovecaptionskip`, 79, 89, *see also* Table
angle, 82, 87
`\belowcaptionskip`, 79, 89, *see also* Table
`\caption`{}, 60, 82, *see also* Table
`\captionsetup`{}, 79, 89, *see also* Table
`\centering`, 60, 82, *see also* Table
`\def\figurename`{}, 89
endfloat, 79, *see also* Table
`\figurename`, 80
`\figureplace`, 80
`\nofiglist`, 80
`\nomarkersintext`, 80
`\thepostfig`, 80
`\epsfig`{}, 81, 82
figure, **figure***, 31, 82, 89, 106
Figure in Table, 89

`\flushleft`, 82
`\flushright`, 82
graphicx, 82, 90
H, h, 82
height, 81
`\includegraphics`[], 82, 83
`\label`{}, 83
Mathematical notation, 87
minipage, 84
`\psdraft`, 90
`\psfrag`{} {}, 87
sidewaysfigure, 87
subfig, 85
`\subfigure`[], 85
`\subfloat`[], 85
`\thefigure`, 106, 189
`\thesubfigure`, 86
width, 81
wrapfig, 68, 86, *see also* Table
wrapfigure, 86
`xfig`, 88

figure, 82, 92, 106, *see also* Figure
Figure (drawing)

`\arc`[], 92
`\qbezier`[(]000), 95
`\bigcircle`[], 92
`\caption`{}, 92
`\circle`{}, `\circle*`{}, 92
`\closecurve`[(]0), 95
`\curve`[(]0), 95
curves, 92, 95
`\dashbox`{}0[] {}, 97, 98
figure, 92
`\framebox`0[] {}, 97, 98
`\line`{} {}, 95
`\linethickness`{}, 92
`\makebox`0[] {}, 97
`\multiput`0()0{} {}, 92, 95, 100
`\oval`0[], 96
`\parbox`[]{} {}, 99
picture, 91, 162
`\put`{} {}, 92–94, 97
`\rotatebox`{} {}, 99
Texts in figures, 97
`\thicklines`, 92
`\thinlines`, 92
`\unittlength`, 91
`\vector`{} {}, 94

Figure in Table, 89

figure*, 31, 89, *see also* Figure
`\figurename`, 80, *see also* Figure
`\figureplace`, 80, *see also* Figure
figwindow, 178, *see also* Paragraph

- final**, 3, *see also* Document
- \Finv** (∓), 253, *see also* Symbol (misc)
- firstpage**, 177, *see also* Watermarking
- flalign**, **flalign***, 110, *see also* Equation
- \flat** (b), 253, *see also* Symbol (misc)
- fileqn**, 3, 106, 110, *see also* Equation
- float**, 62, 133, *see also* Table
- \floatname{}**{}, 133
- \floatstyle{}**, 133
- \flushbottom**, 46, *see also* Page style
- \flushleft**, 82, *see also* Alignment
- flushleft**, 18, *see also* Alignment
- \flushright**, 82, *see also* Alignment
- flushright**, 18, *see also* Alignment
- fly**, 211, *see also* Slide presentation
- fnpara**, 35, *see also* Foot note
- \fnsymbol{}**, 34, *see also* Foot note
- Font (color)
- black**, 14
 - blue**, 14
 - cmyk**, 14
 - color**, 14
 - cyan**, 14
 - \definecolor{ }{ }{ }**, 14
 - gray**, 14, 68
 - green**, 14
 - magenta**, 14
 - red**, 14
 - rgb**, 14
 - \textcolor{ }{ }**, 14
 - white**, 14
 - yellow**, 14
- Font (math-type)
- amfonts**, 11
 - amssymb**, 11
 - \Bbb{}**, 11
 - \boldmath{}**, 11
 - eufрак**, 11
 - \mathbb{}**, 11
 - \mathbf{}**, 11
 - \mathcal{}**, 11
 - \mathfrak{}**, 11
 - \mathit{}**, 11
 - \mathnormal{}**, 11
 - \mathrm{}**, 11
 - \mathsf{}**, 11
 - \mathtt{}**, 11
- Font family
- {\rm}**, 10
 - \rmfamily**, 10
 - {\sf}**, 10
 - \sffamily**, 10
 - \textrm{}**, 10
 - \textsf{}**, 10
 - \texttt{}**, 10
- Font series
- {\bf}**, 10
 - \bfseries**, 10
 - bfseries**, 11
 - \mdseries**, 10
 - \textbf{}**, 10
 - \textmd{}**, 10
- Font shape
- \V**, 10
 - {\em}**, 10
 - \emph{}**, 10
 - {\it}**, 10
 - \itshape**, 10
 - {\sc}**, 10
 - \scshape**, 10
 - {\sl}**, 10
 - \slshape**, 10
 - \textit{}**, 10
 - \textsc{}**, 10
 - \textsl{}**, 10
 - \textup{}**, 10
 - \upshape**, 10
- Font size
- 10pt**, **11pt**, **12pt**, 3
 - {\footnotesize}**, 10
 - \footnotesize**, 10
 - {\Huge}**, 10
 - \Huge**, 10
 - {\huge}**, 10
 - \huge**, 10
 - {\LARGE}**, 10
 - \LARGE**, 10
 - {\Large}**, 10
 - \Large**, 10
 - {\large}**, 10
 - \large**, 10
 - \normalsize**, 10
 - {\scriptsize}**, 10
 - \scriptsize**, 10
 - {\small}**, 10
 - \small**, 10
 - {\tiny}**, 10
 - \tiny**, 10
- Font theme, 210, *see also* Slide presentation
- Foot note
- \endnote{}**, 35
 - endnotes**, 35
 - fnpara**, 35
 - \fnsymbol{}**, 34

`\footnote{}`, 32, 78, 186
`\footnotemark`, 34, 78, *see also* Mini page, Table
`\footnotetext{}`, 34, 78, *see also* Mini page, Table
ftnright, 35
`\label{}`, 33
mpfootnote, 34, *see also* Mini page
`\thefootnote`, 34
`\thempfootnote`, 34, *see also* Mini page
`\footnote{}`, 32, 78, 176, 186, *see also* Foot note
`\footnotemark`, 34, 78, *see also* Foot note
`{\footnotesize}`, 10, *see also* Font size
footnotesize, 10, *see also* Font size
`\footnotetext{}`, 34, 78, *see also* Foot note
`\footrulewidth`, 43, *see also* Page style
`\footskip`, 38, 177, *see also* Page layout, Page style
`\forall` (\forall), 253, *see also* Symbol (misc)
`\frac{[]{}{}}`, 102, *see also* Equation
Fragile command
`\begin{}`, 176
`\centering`, 176
`\footnote{}`, 176
`\protect`, 176
frame, 203, *see also* Slide presentation
`\frame[[]{}{}`, 203, *see also* Slide presentation
`\frame{}`, 161, *see also* Boxed texts
`\framebox()[]{}{}`, 97, 98, *see also* Figure (drawing)
`\framebox[[]{}{}`, 162, *see also* Boxed texts
`\framesubtitle{}`, 204, 208, *see also* Slide
`\frametitle{}`, 204, 208, *see also* Slide presentation
Frankfurt, 210, *see also* Slide presentation
`\frontmatter`, 191, *see also* Book
`\frown` (\frown), 103, *see also* Relation operator
ftnright, 35, *see also* Foot note
Function (math-mode)
`\arccos~x` (arccos x), 252
`\arcsin~x` (arcsin x), 252
`\arctan~x` (arctan x), 252
`\arg` (arg), 252
`\cos~x` (cos x), 252
`\cosh~x` (cosh x), 252
`\cot~x` (cot x), 252
`\coth~x` (coth x), 252
`\csc~x` (csc x), 252
`\deg` (deg), 252
`\det` (det), 252
`\dim` (dim), 252

`\exp` (exp), 252
`\gcd` (gcd), 252
`\hom` (hom), 252
`\inf` (inf), 252
`\ker` (ker), 252
`\lg` (lg), 252
`\lim` (lim), 252
`\liminf` (lim inf), 252
`\limsup` (lim sup), 252
`\ln` (ln), 252
`\log` (log), 252
`\max` (max), 252
`\min` (min), 252
`\Pr` (Pr), 252
`\sec~x` (sec x), 252
`\sin~x` (sin x), 252
`\sinh~x` (sinh x), 252
`\sup` (sup), 252
`\tan~x` (tan x), 252
`\tanh~x` (tanh x), 252

G g

`\Game` (\Game), 253, *see also* Symbol (misc)
`\Gamma` (Γ), 249, *see also* Greek letter
`\gamma` (γ), 249, *see also* Greek letter
gather, **gather***, 107, *see also* Equation
gathered, 123, *see also* Equation
`\gcd` (gcd), 252, *see also* Function (math)
Geometric transformation
graphics, 169
`\reflectbox{}`, 169
`\resizebox{}{}{}`, 169
`\rotatebox{}{}`, 169
`\scalebox{}[]{}{}`, 169
`\geq` (\geq), 103, *see also* Relation operator
`\geqq` (\geqq), 250, *see also* Relation operator
`\geqslant` (\geqslant), 250, *see also* Relation operator
gets (\leftarrow), 251, *see also* Arrow
`\gg` (\gg), 103, *see also* Relation operator
`\ggg` (\ggg), 250, *see also* Relation operator
`\gimel` (\gimel), 253, *see also* Symbol (misc)
`\gnapprox` (\gtrapprox), 250, *see also* Relation operator
`\gneq` (\gtrsim), 250, *see also* Relation operator
`\gneqq` (\gtrsim), 250, *see also* Relation operator
`\gnsim` (\gtrsim), 250, *see also* Relation operator
Goettingen, 210, *see also* Slide presentation
graphics, 169, *see also* Geometric transformation
graphicx, 82, 90, *see also* Figure

`\grave{x}` (\hat{x}), 252, *see also* Accent (math)

`gray`, 13, 69, *see also* Font (color)

Greek letter

`\alpha` (α), 249

`\beta` (β), 249

`\chi` (χ), 249

`\Delta` (Δ), 249

`\delta` (δ), 249

`\digamma` (Γ), 249

`\epsilon` (ϵ), 249

`\eta` (η), 249

`\Gamma` (Γ), 249

`\gamma` (γ), 249

`\iota` (ι), 249

`\kappa` (κ), 249

`\Lambda` (Λ), 249

`\lambda` (λ), 249

`\mu` (μ), 249

`\nu` (ν), 249

`\Omega` (Ω), 249

`\omega` (ω), 249

`\Phi` (Φ), 249

`\phi` (ϕ), 249

`\Pi` (Π), 249

`\pi` (π), 249

`\Psi` (Ψ), 249

`\psi` (ψ), 249

`\rho` (ρ), 249

`\Sigma` (Σ), 249

`\sigma` (σ), 249

`\tau` (τ), 249

`\Theta` (Θ), 249

`\theta` (θ), 249

`\Upsilon` (Υ), 249

`\upsilon` (υ), 249

`\varepsilon` (ε), 249

`\varkappa` (\varkappa), 249

`\varphi` (φ), 249

`\varpi` (ϖ), 249

`\varrho` (ϱ), 249

`\varsigma` (ς), 249

`\vartheta` (ϑ), 249

`\Xi` (Ξ), 249

`\xi` (ξ), 249

`\zeta` (ζ), 249

`green`, 14, *see also* Font (color)

`\gtrapprox` (\gtrapprox), 250, *see also* Relation operator

`\gtrdot` (\gtrdot), 250, *see also* Relation operator

`\gtrless` (\gtrless), 250, *see also* Relation operator

`\gtrqless` (\gtrqless), 250, *see also* Relation operator

`\gtrless` (\gtrless), 250, *see also* Relation operator

`\gtrsim` (\gtrsim), 250, *see also* Relation operator

`\gvertneqq` (\gvertneqq), 250, *see also* Relation operator

H h

`H`, `h`, 62, 82, *see also* Figure, Table

`Hannover`, 210, *see also* Slide presentation

`\hat{\imath}` (\hat{i}), 252, *see also* Accent (math)

`\hat{\jmath}` (\hat{j}), 252, *see also* Accent (math)

`\hat{x}` (\hat{x}), 252, *see also* accent (math)

`\hbar` (\hbar), 253, *see also* Symbol (misc)

`\hdotsfor` [$\{$], 119, *see also* Equation

`\headheight`, 38, *see also* Page layout, Page style

`headings`, 40, 41, *see also* Page style

`\headrulewidth`, 43, *see also* Page style

`\headsep`, 38, *see also* Page layout

`\headwidth`, 44, *see also* Page layout

`\heartpar` {}, 179, *see also* Paragraph

`\heartsuit` (\heartsuit), 253, *see also* Symbol (misc)

`height`, 81, *see also* Figure

`\hfill`, 22, 73, 84, *see also* Blank space

Highlighted texts

`\hl` {}, 173

`\sethlcolor` {}, 173

`soul`, 173

`\hl` {}, 173, *see also* Highlighted texts

`\hline`, 60, *see also* Table

`\hoffset`, 38, *see also* Page layout

`\hom` (hom), 252, *see also* Function (math)

`\hookleftarrow` (\hookleftarrow), 251, *see also* Arrow

`\hookrightarrow` (\hookrightarrow), 251, *see also* Arrow

`howpublished`, 142, *see also* Bibliography

`\hrule`, 171

`\hrulefill`, 23

`\hslash` (\hbar), 253, *see also* Symbol (misc)

`\hspace*` {}, 23, 57, 182, *see also* Blank space

`\hspace*{\fill}`, 23, *see also* Blank space

`\hspace` {}, 12, 23, 57, 113, 168, *see also* Blank space

`\hspace{0pt}`, 164, *see also* Boxed texts

`\Huge` {}, `\huge` {}, 10, *see also* Font size

`\Huge`, `\huge`, 10, *see also* Font size

`\hyperlink <> {} {}`, 227, *see also* Slide presentation

`\hyperlinkframeend<>{}`, 227, *see also* Slide
`\hyperlinkframeendprev<>{}`, 227, *see also* Slide presentation
`\hyperlinkframestart<>{}`, 227, *see also* Slide
`\hyperlinkframestartnext<>{}`, 227, *see also* Slide presentation
`\hyperlinkpresentationend<>{}`, 227, *see also* Slide presentation
`\hyperlinkpresentationstart<>{}`, 227, *see also* Slide presentation
hyperref, 154, 172
 Hyphenating
`\-`, 25
sloppypar, 25

I i

`\dotsint` ($\int \dots \int$), 102, *see also* Equation
`\iiint` (\iiint), 102, *see also* Equation
`\iint` (\iint), 102, *see also* Equation
`\iint` (\iint), 102, 249, *see also* Binary operator
`\iint\limits_s` (\iint_s), 102, *see also* Equation
Ilmenau, 210, *see also* Slide presentation
`\Im` (\Im), 253, *see also* Symbol (misc)
`\imath` (\imath), 253, *see also* Symbol (misc)
`\in` (\in), 103, *see also* Relation operator
in (inch), 23, 91, *see also* Length
`\include{}`, 150, 193, 196, *see also* Book
`\includegraphics<>[{}]`, 225, *see also* Slide
`\includegraphics[{}]`, 82, 83, 225, *see also* Figure
`\includeonly{}`, 201, *see also* Book
`\indent`, 25, *see also* Paragraph

Index

!, 159
 !, 159
 ", 160
 |, 159
 |(. |), 160
 @, 160
`\index{}`, 158
makeidx, 158
`\makeindex`, 158, 160
 makeindex, 160
`\printindex`, 158, 197
`see{}`, 159
`seealso{}`, 159
`\index{}`, 159, *see also* Index
`\indexname`, 129, *see also* Index
`\inf` (inf), 251, *see also* Function (math)

infolines, 213, *see also* Slide presentation
`\infty` (∞), 253, *see also* Symbol (misc)
inmargin, 212, *see also* Slide presentation
 Inner theme, 209, 212, *see also* Slide
`\inplus` (\in), 250, *see also* Relation operator
`\input{}`, 138, 150, 194, *see also* Bibliography, Book
`\inst{}`, 208, *see also* Slide presentation
`\institute[{}]`, 208, *see also* Slide presentation
institution, 142, *see also* Bibliography
`\intercal` (\intercal), 249, *see also* Binary operator
`\interleave` (\interleave), 249, *see also* Binary operator
`\intertext{}`, 107, *see also* Equation
`\invisible<>{}`, 220, *see also* Slide
invisibleenv, 223, *see also* Slide
`\iota` (ι), 249, *see also* Greek letter
`\it`, 10, *see also* Font shape
`\item`, 49, 219, *see also* Listing, Slide presentation
`\item[]`, 55, *see also* Listing
itemize, 49, 53, 55, *see also* Listing
`\itemsep`, 49, *see also* Listing
`\itshape`, 10, *see also* Font shape

J j

`\jmath` (j), 253, *see also* Symbol (misc)
`\Join` (\Join), 103, *see also* Relation operator
journal, 142, *see also* Bibliography
JuanLesPins, 210, *see also* Slide presentation

K k

`\kappa` (κ), 249, *see also* Greek letter
`\ker` (ker), 252, *see also* Function (math)
 Keyboard character
`\#` ($\#$), 8
`\$` ($\$$), 8
`$<$` ($<$), 8
`$>$` ($>$), 8
`\backslash` (\backslash), 8
`\sim` (\sim), 8
`\%` ($\%$), 8
`\&` ($\&$), 8
`\^` (\wedge), 8
`_` ($_$), 8
`\{` ($\{$), 8
`\}` ($\}$), 8
`\kill`, 58, *see also* Tabbing

L I

label, 227, *see also* Slide presentation

\label{}, 16, 33, 50, 60, 74, 77, *see also* Referring

\labelenumi, 50, 51, *see also* Listing

\labelenumii, 50, 51, *see also* Listing

\labelenumiii, 50, 51, *see also* Listing

\labelenumiv, 50, 51, *see also* Listing

\labelitemi, 54, *see also* Listing

\labelitemii, 54, *see also* Listing

\labelitemiii, 53, *see also* Listing

\labelitemiv, 53, *see also* Listing

\Lambda (Λ), 249, *see also* Greek letter

\lambda (λ), 249, *see also* Greek letter

landscape, 3, 37, *see also* Document

\langle (\langle), 252, *see also* Delimiter

\LARGE, 10, *see also* Font size

L^AT_EX, 1, 137, *see also* Bibliography

\LaTeX ($L^A T_E X$), 5, 248, *see also* Symbol (text)

latex, 4, 81, 140, 149, 198, *see also* Compilation

\layout, 38, *see also* Page layout

\Lbag (\langle), 252, *see also* Delimiter

\lceil (\lceil), 252, *see also* Delimiter

\ldots (\dots), 171, 248, *see also* Dots

\leadsto (\leadsto), 251, *see also* Arrow

\left, 101, 109, *see also* Delimiter

\Leftarrow (\Leftarrow), 251, *see also* Arrow

\leftarrow (\leftarrow), 251, *see also* Arrow

\leftarrowtail (\leftarrowtail), 251, *see also* Arrow

\leftarrowtriangle (\leftarrowtriangle), 251, *see also* Arrow

\lefteqn{}, 117, *see also* Equation

\leftharpoondown (\leftharpoondown), 251, *see also* Arrow

\leftharpoonup (\leftharpoonup), 251, *see also* Arrow

\leftleftarrows (\leftleftarrows), 251, *see also* Arrow

leftmargin, 56, *see also* Listing

\leftmark, 45, *see also* Page style

\Leftrightarrow (\Leftrightarrow), 251, *see also* Arrow

\leftrightarrow (\leftrightarrow), 251, *see also* Arrow

\leftrightarrows (\leftrightarrows), 251, *see also* Arrow

\leftrightarrowtriangle (\leftrightarrowtriangle), 251, *see also* Arrow

\Leftrightarrow (\Leftrightarrow), 251, *see also* Arrow

\Leftrightarrow (\Leftrightarrow), 251, *see also* Arrow

\leftrightsquigarrow (\leftrightsquigarrow), 251, *see also* Arrow

\leftslice (\leftslice), 249, *see also* Binary operator

\leftthreetimes (\leftthreetimes), 249, *see also* Binary operator

legalpaper, 3, 37, *see also* Document, Page size

\Lemma, 132, *see also* Users macros

Length

cm (centimeter), 23, 91

em (Width of M), 23, 91

ex (width of x), 23

in (inch), 23, 91

mm (millimeter), 23

pc (pica), 91

pt (point), 23, 91

\leq (\leq), 103, *see also* Relation operator

leqno, 3, 106, *see also* Equation

\leqq (\leqq), 250, *see also* Relation operator

\leqslant (\leqslant), 250, *see also* Relation operator

\lessapprox (\lessapprox), 250, *see also* Relation operator

\lessdot (\lessdot), 250, *see also* Relation operator

\lesseqgtr (\lesseqgtr), 250, *see also* Relation operator

\lesseqgtr (\lesseqgtr), 250, *see also* Relation operator

\lessgtr (\lessgtr), 250, *see also* Relation operator

\lesssim (\lesssim), 250, *see also* Relation operator

\let\thepage\relax, 47, *see also* Page numbering

\let\clearpage\relax, 150, *see also* Bibliography

Letter

\address{}, 181

\cc{}, 181

\closing{}, 181

\date{}, 182

\encl{}, 181

letter, 27, 181

\opening{}, 181

\signature{}, 181

\today, 182, *see also* Date

letter, 2, 27, 181, *see also* Letter

letterpaper, 3, 37, *see also* Page size

\lfloor (\lfloor), 252, *see also* Delimiter

\foot[]{}, 43, 178, *see also* Page style

\lg (\lg), 252, *see also* Function (math)

\lgroup (\lgroup), 252, *see also* Delimiter

- `\lhd` (\triangleleft), 103, *see also* Binary operator
- `\thead[]{ }`, 43, 178, *see also* Page style
- `\lightning` (ζ), 251, *see also* Arrow
- `\lily`, 211, *see also* Slide presentation
- `\lim` (lim), 252, *see also* Function (math)
- `\lim_ { }`, 252, *see also* Equation
- `\liminf`, 102, *see also* Function (math)
- `\limsup`, 252, *see also* Function (math)234
- Line break (prevention)
 - `~`, 24
 - `\,`, 24
 - `\mbox{ }`, 24
 - `\nolinebreak`, 24
- Line spacing
 - `setspace`, 19, 170
 - `singlespace`, 19
 - `spacing`, 19, 170
- `\line{ }`, 94, *see also* Figure (drawing)
- `\linebreak`, 19, *see also* New line
- `\linethickness{ }`, 92, *see also* Figure (drawing)
- `\linewidth`, 23, 31, 38, 61, 63, 84, *see also* Page size
- `linktopage`, 172, *see also* Contents
- `\listfigurename`, 129, 154, *see also* Contents
- `\listtablename`, 129, 154, *see also* Contents
- Listing
 - `compactitem`, 135
 - `description`, 49, 54, 55
 - `\descriptionlabel`, 55
 - `\item[]`, 55
 - `enumerate`, 49, 52, 55
 - `\begin{enumerate}[]`, 52, 56
 - `enumi`, `enumii`, `enumiii`, `enumiv`, 50
 - `\labelenumi`, 50, 51
 - `\labelenumii`, 50, 51
 - `\labelenumiii`, 50, 51
 - `\labelenumiv`, 50, 51
 - `\theenumi`, 50
 - `\theenumii`, 50
 - `\theenumiii`, 50
 - `\theenumiv`, 50
 - `enumitem`, 56
 - `\item`, 49
 - `itemize`, 49, 53, 55
 - `\labelitemi`, 53
 - `\labelitemii`, 53
 - `\labelitemiii`, 53
 - `\labelitemiv`, 53
 - `\itemsep`, 49
 - `\label{ }`, 50
 - `leftmargin`, 56
 - Nesting, 50, 53, 55
 - `listing`, 174, *see also* Verbatim text
 - `\listoff{ }{ }`, 133, *see also* Users macros
 - `\listoffigures`, 153, 154, 197, *see also* Contents
 - `\listoftables`, 153, 154, 197, *see also* Contents
 - `\ll` (\ll), 103, *see also* Relation operator
 - `\llbracket` (\llbracket), 252, *see also* Delimiter
 - `\lceil` (\lceil), 252, *see also* Delimiter
 - `\llcorner` (\llcorner), 252, *see also* Delimiter
 - `\Lleftarrow` (\Lleftarrow), 251, *see also* Arrow
 - `\llfloor` (\llfloor), 252, *see also* Delimiter
 - `\lll` (\lll), 250, *see also* Relation operator
 - `\lmoustache` (\lmoustache), 252, *see also* Delimiter
 - `\ln` (ln), 252, *see also* Function (math)
 - `\lnapprox` (\lnapprox), 250, *see also* Relation operator
 - `\lneq` (\lneq), 250, *see also* Relation operator
 - `\lneqq` (\lneqq), 250, *see also* Relation operator
 - `\lnsim` (\lnsim), 250, *see also* Relation operator
 - `lof`, 154, *see also* Contents
 - `lofdepth`, 155, *see also* Contents
 - `\log` (log), 252, *see also* Function (math)
 - `\logo{ }`, 204, *see also* Slide presentation
 - `\longdate`, 172, *see also* Date
 - `\Longleftarrow` (\Longleftarrow), 251, *see also* Arrow
 - `\longleftarrow` (\longleftrightarrow), 251, *see also* Arrow
 - `\Longleftrightarrow` (\Longleftrightarrow), 251, *see also* Arrow
 - `\longleftrightarrow` (\longleftrightarrow), 251, *see also* Arrow
 - `\Longmapsfrom` (\Longmapsfrom), 251, *see also* Arrow
 - `\longmapsfrom` (\longleftrightarrow), 251, *see also* Arrow
 - `\Longmapsto` (\Longmapsto), 251, *see also* Arrow
 - `\longmapsto` (\mapsto), 251, *see also* Arrow
 - `longnamesfirst`, 149, *see also* Bibliography
 - `\Longrightarrow` (\Longrightarrow), 251, *see also* Arrow
 - `\longrightarrow` (\longrightarrow), 251, *see also* Arrow
 - `longtable`, 59, 76, *see also* Table
 - `\looparrowleft` (\looparrowleft), 251, *see also* Arrow
 - `\looparrowright` (\looparrowright), 251, *see also* Arrow
 - `lot`, 154, *see also* Contents
 - `lotdepth`, 155, *see also* Contents
 - `\lozenge` (\lozenge), 253, *see also* Symbol (misc)
 - LR-mode, 11, *see also* Text processing
 - `\lrcorner` (\lrcorner), 252, *see also* Delimiter
 - `\Lsh` (\Lsh), 251, *see also* Arrow

`\limes` (\times), 249, *see also* Binary operator
Luebeck, 210, *see also* Slide presentation
`\lvertneqq` ($\not\cong$), 250, *see also* Relation operator

M m

`m{}`, 63, *see also* Table
Madrid, 210, *see also* Slide presentation
magenta, 14, *see also* Font (color)
`\mainmatter`, 191, *see also* Book
`\makeatletter`, 5, 106, 187, 189, 190, 198
`\makeatother`, 5, 106, 187, 188, 190, 198
`\makebox()`[*l*]{}, 92, *see also* Figure (drawing)
`\makebox`[*l*][*l*]{}, 162, *see also* Boxed texts
makeidx, 158, *see also* Index
`\makeindex`, 158, 159, *see also* Index
makeindex, 160, 199, *see also* Compilation, Index
`\maketitle`, 41, 183, 186, *see also* Article
Malmoe, 210, *see also* Slide presentation
`\Mapsfrom` (\Leftarrow), 251, *see also* Arrow
`\mapsfrom` (\leftarrow), 251, *see also* Arrow
`\Mapsto` (\mapsto), 251, *see also* Arrow
`\mapsto` (\mapsto), 251, *see also* Arrow
Marburg, 210, *see also* Slide presentation
 Marginal note
 `\marginpar{}`, 35
 `\marginparpush`, 36
 `\marginparsep`, 36
 `\marginparwidth`, 36
`\marginpar{}`, 35, *see also* Marginal note
`\marginparpush`, 36, 38, *see also* Marginal note
`\marginparsep`, 36, 38, *see also* Marginal note
`\marginparwidth`, 36, 38, *see also* Marginal note
`\markboth{}`{}, 42, 177, *see also* Page style
`\markright{}`, 42, 177, *see also* Page style
math, 127, *see also* Text-mode equation
`\mathbb{}`{}, 11, *see also* Font (math)
`\mathbf{}`{}, 11, *see also* Font (math)
`\mathcal{}`{}, 11, *see also* Font (math)
`\mathfrak{}`{}, 11, *see also* Font (math)
`\mathindent`, 106, *see also* Equation
`\mathit{}`{}, 11, *see also* Font (math)
`\mathnormal{}`{}, 11, *see also* Font (math)
`\mathring{x}`{*x*} (\mathring{x}), 252, *see also* Accent (math)
`\mathrm{}`{}, 11, *see also* Equation, Font (math)

`\mathsf{}`{}, 11, *see also* Font (math)
`\mathtt{}`{}, 11, *see also* Font (math)
matrix, 117, *see also* Equation
`\max` (max), 252, *see also* Function (math)
`\MaxMatrixCols{}`, 118, *see also* Equation
`\mbox{}`, 24, 113, *see also* Equation, Line break
`\mdseries`, 10, *see also* Font series
`\mdyyydate`, 172, *see also* Date
`\mduyyydate`, 172, *see also* Date
`\measuredangle` (\sphericalangle), 253, *see also* Symbol (misc)
`\medspace`, 22, *see also* Blank space
`\merge` (\M), 249, *see also* Binary operator
`\mho` (\O), 253, *see also* Symbol (misc)
`\mid` ($|$), 103, *see also* Relation operator
`\midrule`{}, 65, *see also* Table
`\min` (min), 252, *see also* Function (math)
 Mini page
 boxedminipage, 32
 Foot note, 33
 `\footnotemark`, 34
 `\footnotetext{}`, 34
 mpfootnote, 40
 `\thempfootnote`, 34
 minipage, 31, 73, 84
 Table, 78
miniframes, 213, *see also* Slide presentation
minipage, 31, 73, 84, *see also* Mini page
`\minitoc`, 156, 158, *see also* Contents
minitoc, 156, *see also* Contents
minitocdepth, 156, *see also* Contents
`\minuso` (\ominus), 249, *see also* Binary operator
mm (millimeter), 23, *see also* Length
`\mdddydate`, 172, *see also* Date
`\mddyyydate`, 172, *see also* Date
`\mod{}`, 102, *see also* Equation
`\models` (\models), 103, *see also* Relation operator
monarch, 211, *see also* Slide presentation
month, 142, *see also* Bibliography
`\monthname`{}, 172, *see also* Date
Montpellier, 210, *see also* Slide presentation
`\moo` (\pm), 249, *see also* Binary operator
moreverb, 174, *see also* Verbatim text
`\mp` (\mp), 103, *see also* Binary operator
mpfootnote, 34, *see also* Foot note, Mini page
`\mu` (μ), 249, *see also* Greek letter
multicol, 30, *see also* Document
multicols, 30, *see also* Document

`\multicolsep`, 31, *see also* Multiple columns

`\multicolumn{...}`, 66, *see also* Table

`\multimap` (\multimap), 251, *see also* Arrow

Multiple columns

- `\columnsep`, 30
- `\columnseprule`, 30
- `\columnwidth`, 30
- `twocolumn`, 29
- `multicols`, 30
- `\multicolsep`, 31
- `\twocolumn[...]`, 29

Multiple contents lists

- `\dominitoc`, 156
- `minitoc`, 156
- `\minitoc`, 158
- `minitocdepth`, 156

`\multirow{...}`, 92, *see also* Figure (drawing)

`multirow`, 66, *see also* Table

`\multirow{...}`, 66, *see also* Table

`multiline`, `multiline*`, 115, *see also* Equation

`myheadings`, 41, 42, 177, *see also* Page style

N n

`\nabla` (∇), 102, 253, *see also* Symbol (misc)

`natbib`, 147, *see also* Bibliography

`\natural` (\natural), 253, *see also* Symbol (misc)

`\ncong` (\cong), 250, *see also* Relation operator

`\nearrow` (\nearrow), 251, *see also* Arrow

`\neg` (\neg), 253, *see also* Symbol (misc)

`\neq` (\neq), 103, *see also* Relation operator

New line

- `\\`, 19
- `*`, 20
- `*[...]`, 20
- `\\[...]`, 20
- `\\ \\`, 19

Blank line, 19

- `\linebreak`, 19
- `\newline`, 19

`\newblock`, 137, *see also* Bibliography

`\newcolumntype{...}`, 65, 69, *see also* Table

`\newcommand{...}`, 126, 128, *see also* Users macros

`\newcommand{...}`, 125, *see also* Users macros

`\newdateformat{...}`, 172, *see also* Date

`\newenvironment{...}`, 130, *see also* Users macros

`\newfloat{...}`, 133, *see also* Users macros

`\newline`, 19, *see also* New line

`\newpage`, 46, 47, *see also* Page break

`\newtheorem*{...}`, 132, *see also* Users macros

`\newtheorem{...}`, 131, *see also* Users macros

`\nexists` (\nexists), 102, 253, *see also* Symbol (misc)

`\ngeq` (\ngeq), 250, *see also* Relation operator

`\ngeqq` (\ngeqq), 250, *see also* Relation operator

`\ngeqslant` (\ngeqslant), 250, *see also* Relation operator

`\ngtr` (\ngtr), 250, *see also* Relation operator

`\ni` (\ni), 103, *see also* Relation operator

`\niplus` (\niplus), 250, *see also* Relation operator

`\nLeftarrow` (\nLeftarrow), 251, *see also* Arrow

`\nleftarrow` (\nleftarrow), 251, *see also* Arrow

`\nLeftrightarrow` (\nLeftrightarrow), 251, *see also* Arrow

`\nlefrightarrow` (\nlefrightarrow), 251, *see also* Arrow

`\nleq` (\nleq), 250, *see also* Relation operator

`\nleqq` (\nleqq), 250, *see also* Relation operator

`\nleqslant` (\nleqslant), 250, *see also* Relation operator

`\nless` (\nless), 250, *see also* Relation operator

`\nmid` (\nmid), 250, *see also* Relation operator

`\nrightarrow` (\nrightarrow), 251, *see also* Arrow

`\nnwarrow` (\nnwarrow), 251, *see also* Arrow

`\nocite{...}`, 147, *see also* Bibliography

`\nocite{*}`, 147, *see also* Bibliography

`nodayofweek`, 172, *see also* Date

`\nofiglist`, 80, *see also* Figure

`\noindent`, 20, *see also* Paragraph

`\nolinebreak`, 24, *see also* Line break

`\nomarkersintext`, 80, *see also* Figure, Table

`\nonumber`, 105, 108, *see also* Equation

`\nopagebreak`, 46, *see also* Page break

`\normalem`, 12, *see also* Emphasized texts

`\normalsize`, 10, *see also* Font size

`\not<` ($\not<$), 103, *see also* Relation operator

`\not>` ($\not>$), 103, *see also* Relation operator

`\not=` ($\not=$), 103, *see also* Relation operator

`\not\approx` ($\not\approx$), 103, *see also* Relation operator

`\not\equiv` ($\not\equiv$), 103, *see also* Relation operator

`\not\in` ($\not\in$), 103, *see also* Relation operator

`\not\parallel` ($\not\parallel$), 103, *see also* Relation operator

`\not\sim` ($\not\sim$), 103, *see also* Relation operator
`\notablist`, 80, *see also* Table
`\notag`, 105, 108, *see also* Equation
note, 142, *see also* Bibliography
notitlepage, 3, *see also* Document
`\nparallel` (\nparallel), 250, *see also* Relation operator
`\nplus` (\nplus), 249, *see also* Binary operator
`\nprec` (\nprec), 250, *see also* Relation operator
`\npreceq` (\npreceq), 250, *see also* Relation operator
`\nrightarrow` (\nrightarrow), 251, *see also* Arrow
`\nrightarrow` (\rightarrow), 251, *see also* Arrow
`\nshortmid` (\nshortmid), 250, *see also* Relation operator
`\nshortparallel` (\nshortparallel), 250, *see also* Relation operator
`\nsim` (\nsim), 250, *see also* Relation operator
`\nsubseteq` (\nsubseteq), 250, *see also* Relation operator
`\nsubseteqq` (\nsubseteqq), 250, *see also* Relation operator
`\nsucc` (\nsucc), 250, *see also* Relation operator
`\nsucceq` (\nsucceq), 250, *see also* Relation operator
`\nsupseteq` (\nsupseteq), 250, *see also* Relation operator
`\nsupseteqq` (\nsupseteqq), 250, *see also* Relation operator
`\ntriangleleft` (\ntriangleleft), 250, *see also* Relation operator
`\ntrianglelefteq` (\ntrianglelefteq), 250, *see also* Relation operator
`\ntrianglelefteqslant` (\ntrianglelefteqslant), 250, *see also* Relation operator
`\ntriangleright` (\ntriangleright), 250, *see also* Relation operator
`\ntrianglerighteq` (\ntrianglerighteq), 250, *see also* Relation operator
`\ntrianglerighteqslant` (\ntrianglerighteqslant), 250, *see also* Relation operator
`\nu` (ν), 249, *see also* Greek letter
number, 142, *see also* Bibliography
Numbering
Alph, 47
`\Alph{}`, 28, 51
alph, 47
`\alph{}`, 29, 51
arabic, 47
`\arabic{}`, 28, 51
roman, 47
`\roman{}`, 29, 51

Roman, 47
`\Roman{}`, 29
 Section unit, 15, 16
numbers, 140, *see also* Bibliography
`\nVDash` (\nVDash), 250, *see also* Relation operator
`\nvDash` (\nvDash), 250, *see also* Relation operator
`\nvdash` (\nvdash), 250, *see also* Relation operator
`\nwarrow` (\nwarrow), 251, *see also* Arrow

O o

`\O` (\O), 248, *see also* Symbol (text)
`\o` (\o), 248, *see also* Symbol (text)
`\obar` (\obar), 249, *see also* Binary operator
`\oblong` (\oblong), 249, *see also* Binary operator
`\obslash` (\obslash), 249, *see also* Binary operator
oclock, 173, *see also* Time
`\oddsidemargin`, 38, *see also* Page layout
`\odot` (\odot), 103, *see also* Binary operator
`\OE` (\OE), 248, *see also* Symbol (text)
`\oe` (\oe), 248, *see also* Symbol (text)
`\ogreaterthan` (\ogreaterthan), 249, *see also* Binary operator
`\olessthan` (\olessthan), 249, *see also* Binary operator
`\Omega` (Ω), 249, *see also* Greek letter
`\omega` (ω), 249, *see also* Greek letter
`\ominus` (\ominus), 103, *see also* Binary operator
onecolumn, 3, 29, *see also* Document
`\onecolumn[]`, 188, *see also* Article
oneside, 3, *see also* Document
`\only<>{ }`, 220, *see also* Slide presentation
`\onslide<>{ }`, 220, *see also* Slide presentation
openany, 3, 194, *see also* Book, Document
openbib, 3, *see also* Document
`\opening{ }`, 181, *see also* Letter
openright, 3, *see also* Document
`\oplus` (\oplus), 103, *see also* Binary operator
orchid, 211, *see also* Slide presentation
`\ordinaldate{ }`, 172, *see also* Date
organization, 142, *see also* Bibliography
`\oslash` (\oslash), 103, *see also* Binary operator
`\otimes` (\otimes), 103, *see also* Binary operator
 Outer theme, 209, 212, *see also* Slide presentation
`\oval()[]`, 96, *see also* Figure (drawing)
`\Ovalbox{ }`, 161, *see also* Boxed texts
`\ovalbox{ }`, 161, *see also* Boxed texts
`\ovee` (\ovee), 249, *see also* Binary operator

\overbrace{}, 252, *see also* Accent (math)
overcite, 140, *see also* Bibliography
\overleftarrow{}, 121, *see also* Equation, Stacking
\overline{}, 252, *see also* Accent (math)
\overrightarrow{}, 121, *see also* Stacking
\overset{ }{ }, 121, *see also* Equation, Stacking
\owedge (⊗), 249, *see also* Binary operator

P p

\P (ℙ), 248, *see also* Symbol (text)
p{}, 63, *see also* Table
 Package, 6
alltt, 175, *see also* Verbatim text
amsfonts, 11, *see also* Font (math)
amsmath, 22, 101, 248, *see also* Equation
amssymb, 7, 11, *see also* Symbol (math)
appendix, 155, *see also* Contents
array, 63, 107, *see also* Equation, Table
booktabs, 65, *see also* Table
boxedminipage, 32, 164, *see also* Mini page
caption, 79, *see also* Figure, Table
chapterbib, 150, *see also* Bibliography
color, 13, 162, *see also* Font (color)
colortbl, 68, *see also* Table
curves, 92, *see also* Figure (drawing)
datetime, 172, *see also* Date, Time
dcolumn, 71, *see also* Table
delarray, 109, *see also* Delimiter, Equation
draftwatermark, 177, *see also* Watermarking
endfloat, 80, *see also* Figure, Table
endnotes, 35, *see also* Foot note
enumerate, 52, *see also* Listing
enumitem, 56, *see also* Listing
epsfig, 81, *see also* Figure
eufrak, 11, *see also* Font (math)
extsize, 214, *see also* Slide presentation
fancybox, 162, 165, *see also* Boxed texts
fancyhdr, 41, 45, 177, *see also* Page style
fancyheadings, 41, 43, 177, *see also* Page style
fancyvrb, 204, *see also* Slide presentation
float, 62, 133, *see also* Figure, Table

graphics, 169, *see also* Geometric transformation
graphicx, 82, *see also* Figure
helvet, 214, *see also* Font family
hyperref, 154, 172
layout, 38, *see also* Page layout
longtable, 76, *see also* Table
makeidx, 158, *see also* Index
mathptmx, 214, *see also* Font family
minitoc, 156, *see also* Contents
moreverb, 174, *see also* Verbatim text
multicol, 30, *see also* Document
multirow, 66, *see also* Table
overcite, 140, *see also* Bibliography
paralist, 135, *see also* Users macros
pinyinpar, 178, *see also* Paragraph
pict2e, 92, *see also* Figure (drawing)
rotating, 62, 75, 99, 166, *see also* Boxed texts, Figure (drawing), Table
setspace, 19, 182, 197, *see also* Line spacing
shadow, 162, *see also* Boxed texts
shapepar, 179, *see also* Paragraph
soul, 173, *see also* Highlighted texts
stmaryrd, 248, *see also* Symbol (math)
subfig, **subfigure**, 85, *see also* Figure
tabularx, 59, *see also* Table
ulem, 12, *see also* Emphasized texts
url, 143, *see also* Bibliography
\usepackage[]{ }, 7
tight, 7
varioref, 17, *see also* Page numbering
wrapfig, 68, 86, *see also* Figure, Table
 Page break
\cleardoublepage, 46
\clearpage, 46
\newpage, 46
\nopagebreak, 46
\pagebreak, 46
 Page layout
\columnsep, 38
\columnseprule, 38
\columnwidth, 38
\evensidemargin, 38
\footskip, 38
\headheight, 38
\headsep, 38
\hoffset, 38
\layout, 38
\linewidth, 38
\marginparpush, 38
\marginparsep, 38
\marginparwidth, 38

- `\oddsidemargin`, 38
- `\paperheight`, 38
- `\paperwidth`, 38
- `\textheight`, 38
- `\textwidth`, 38
- `\topmargin`, 38
- `\voffset`, 38
- Page numbering
 - Alph**, `alph`, 47
 - `arabic`, 47, 192, 198
 - `\let\thepage\relax`, 47
 - `\pagenumbering{}`, 47, 192, 198
 - `\pageref{}`, 17
 - `\pagestyle{empty}`, 47
 - Roman**, `roman`, 47, 192, 198
 - `\setcounter{page}{}`, 47
 - `\thispagestyle{empty}`, 47, 191
 - `varioref`, 17
 - `\vpageref[[]]{}{}`, 17
 - `\vpageref{}`, 17
 - `\vref{}`, 17
- Page size
 - `a4paper`, `a5paper`, 3, 37
 - `b5paper`, 3, 37
 - `\enlargethispage{}`, 40
 - `\enlargethispage*{}`, 40
 - `executivepaper`, 3, 37
 - `legalpaper`, 3, 37
 - `letterpaper`, 3, 37
 - `\linewidth`, 23
 - `\marginpar{}`, 35
 - `\marginparpush`, 36
 - `\marginparsep`, 36
 - `\marginparwidth`, 36
 - `\textheight`, 23
 - `\textwidth`, 23
- Page style
 - `\chaptermark`, 42
 - fancyhdr**
 - `fancy`, 45, 178
 - `\fancyfoot[[]]{}{}`, 45, 178
 - `\fancyhead[[]]{}{}`, 45, 178
 - fancyheadings**
 - `\cfoot[[]]{}{}`, 43, 178
 - `\thead[[]]{}{}`, 43, 178
 - `fancy`, 43
 - `\footrulewidth`, 43
 - `\headrulewidth`, 43
 - `\headwidth`, 44
 - `\tfoot[[]]{}{}`, 43, 178
 - `\thead[[]]{}{}`, 43, 178
 - `\tfoot[[]]{}{}`, 43, 178
 - `\rhead[[]]{}{}`, 43, 178
 - `\flushbottom`, 46
 - `\leftmark`, 42, 45
 - `myheadings`, 42, 178
 - `\markboth{}{}`, 42, 43, 178
 - `\markright{}`, 42, 43, 178
 - `\pagecolor{}`, 163
 - `\pagestyle{}`, 40, 182
 - `empty`, 41
 - `fancy`, 43, 44
 - `headings`, 41
 - `myheadings`, 41, 42
 - `plain`, 41
 - `\raggedbottom`, 46
 - `\rightmark`, 42, 45
 - `\sectionmark`, 42
 - `\subsectionmark`, 42
 - `\thispagestyle{}`, 40
 - `twoside`, 38
 - `\pagebreak`, 46, *see also* Page break
 - `\pagecolor{}`, 163, *see also* Page style
 - `\pagenumbering{}`, 47, *see also* Page numbering
 - `\pageref{}`, 17, *see also* Page numbering
 - pages**, 142, *see also* Bibliography
 - `\pagestyle{}`, 40, 182, *see also* Page style
 - `\pagestyle{empty}`, 47, *see also* Page numbering
 - PaloAlto**, 210, *see also* Slide presentation
 - `\paperheight`, 38, *see also* Page layout
 - `\paperwidth`, 38, *see also* Page layout
 - `\par`, 20, *see also* Paragraph
 - Paragraph
 - `\diamondpar{}`, 179
 - `figwindow`, 178
 - `\heartpar{}`, 180
 - `\indent`, 20
 - `\noindent`, 20
 - `\par`, 20
 - `\paragraph{}`, 20
 - `\parindent`, 20
 - `\parskip`, 20
 - `picinpar`, 179
 - `shapepar`, 179
 - `\shapepar/nutshape{}`, 179
 - `\squarepar{}`, 179
 - `\subparagraph{}`, 20
 - `tabwindow`, 167
 - `window`, 167
 - Paragraph-mode, 9
 - `\paragraph{}`, 15, 20, 183, *see also* Sectional unit
 - paralist**, 136, *see also* Listing
 - `\parallel(|)`, 103, *see also* Relation operator

`\parbox{][}{}`, 99, 164, 167, *see also* Boxed texts

`\parindent`, 20, 64, *see also* Paragraph

`\parskip`, 20, *see also* Paragraph

`\parskip`, 20, *see also* Paragraph

`\part{}`, 27, 189, 198, *see also* Sectional unit

`\partial` (∂), 253, *see also* Symbol (misc)

`\partname`, 129, *see also* Users macros

`\pause`, 218, *see also* Slide presentation

`pausesections`, 217, *see also* Slide presentation

`pausesubsections`, 217, *see also* Slide presentation

`pc` (pica), 91, *see also* Length

`pdflatex`, 5, 81, *see also* Compilation

`\perp` (\perp), 103, *see also* Relation operator

`\phantomsection`, 154, *see also* Contents

`\Phi` (Φ), 249, *see also* Greek letter

`\phi` (ϕ), 249, *see also* Greek letter

`\Pi` (Π), 249, *see also* Greek letter

`\pi` (π), 249, *see also* Greek letter

`\picinpar`, 178, *see also* Paragraph

`\pict2e`, 92, *see also* Figure (drawing)

`picture`, 91, 162, *see also* Figure (drawing)

`\pitchfork` (\pitchfork), 250, *see also* Relation operator

Pittsburgh, 210, *see also* Slide presentation

plain, 41, 146, 215, *see also* Bibliography, Page style

`plainnat`, 147, *see also* Bibliography

`\pm` (\pm), 103, *see also* Binary operator

`\pmatrix`, 117, *see also* Equation

`\pmod{}`, 102, *see also* Equation

`\pod{}`, 102, *see also* Equation

`\portrait`, 3, 37, *see also* Document

`\pounds` (\pounds), 248, *see also* Symbol (text)

`\Pr` (Pr), 252, *see also* Function (math)

Preamble, 2, *see also* Document

`\prec` (\prec), 103, *see also* Relation operator

`\precapprox` (\precapprox), 250, *see also* Relation operator

`\preccurlyeq` (\preccurlyeq), 250, *see also* Relation operator

`\preceq` (\preceq), 103, *see also* Relation operator

`\precnapprox` (\precnapprox), 250, *see also* Relation operator

`\precnsim` (\precnsim), 250, *see also* Relation operator

`\precsim` (\precsim), 250, *see also* Relation operator

Presentation theme, 209, *see also* Slide presentation

`\prime` (\prime), 253, *see also* Symbol (misc)

Principle, 131, *see also* Users macros

`\printindex`, 158, 197, *see also* Index

Proof, 131, *see also* Users macros

proof, 224, *see also* Slide presentation

Proposition, 131, *see also* Users macros

`\propto` (\propto), 103, *see also* Relation operator

`\protect`, 176, *see also* Fragile command

`\providecommand{}`, 125, *see also* Users macros

`\psdraft`, 90, *see also* Figure

psfrag, 87, *see also* Figure

`\psfrag{}`, 87, *see also* Figure

`\Psi` (Ψ), 249, *see also* Greek letter

`\psi` (ψ), 249, *see also* Greek letter

pt (point), 23, 91, *see also* Length

publisher, 142, *see also* Bibliography

`\put{}`, 92–94, 96, *see also* Figure (drawing)

Q q

`\qbezier{1000}`, 95, *see also* Figure (drawing)

`\qed`, 224, *see also* Symbol (text-mode)

`\quad`, 22, 113, *see also* Blank space

`\quad`, 22, 113, *see also* Blank space

Quoted texts

quotation, 19

quote, 19

R r

`\raggedbottom`, 46, *see also* Page style

`\raggedleft`, 18, *see also* Alignment

`\raggedleft\arraybackslash`, 61, *see also* Table

`\raggedright`, 18, *see also* Alignment

`\raggedright\arraybackslash`, 61, *see also* Table

`\raisebox{][}{}`, 167, *see also* Boxed texts

`\rangle` (\rangle), 252, *see also* Delimiter

`\Rbag` (\Rbag), 252, *see also* Delimiter

`\rbag` (\rbag), 252, *see also* Delimiter

`\rceil` (\rceil), 252, *see also* Delimiter

`\Re` (\Re), 253, *see also* Symbol (misc)

rectangles, 212, *see also* Slide presentation

red, 14, *see also* Font (color)

`\ref{}`, 16, 33, 50, 60, 103, 138, *see also* Referring

Referring

`\label{}`, 16, 74, 138

- `\ref{}`, 16, 138
- `\reflectbox{}`, 169, *see also* Geometric transformation
- Relation operator
 - `\approx` (\approx), 103
 - `\approxeq` (\approx), 250
 - `\asymp` (\asymp), 103
 - `\backepsilon` (ϵ), 250
 - `\backsim` (\sim), 250
 - `\backsimeq` (\simeq), 250
 - `\because` (\because), 250
 - `\between` ($\text{\textcircled{>}}$), 250
 - `\blacktriangleleft` (\blacktriangleleft), 250
 - `\blacktriangleright` (\blacktriangleright), 250
 - `\bowtie` (\bowtie), 103
 - `\Bumpeq` (\Bumpeq), 250
 - `\bumpeq` (\bumpeq), 250
 - `\circeq` ($\overset{\circ}{=}$), 250
 - `\cong` (\cong), 103
 - `\curlyeqprec` (\prec), 250
 - `\curlyeqsucc` (\succ), 250
 - `\dashv` (\dashv), 103
 - `\doteq` (\doteq), 103
 - `\doteqdot` ($\dot{=}$), 250
 - `\eqcirc` (\circ), 250
 - `\eqslantgtr` (\gtrsim), 250
 - `\eqslantless` (\lesssim), 250
 - `\equiv` (\equiv), 103
 - `\fallingdotseq` (\fallingdotseq), 250
 - `\frown` (\frown), 103
 - `\geq` (\geq), 103
 - `\geqq` (\geqq), 250
 - `\geqslant` (\geqslant), 250
 - `\gg` (\gg), 103
 - `\ggg` (\ggg), 250
 - `\gnapprox` (\gtrapprox), 250
 - `\gneq` (\gtr), 250
 - `\gneqq` (\gtr), 250
 - `\gnsim` (\gtrsim), 250
 - `\gtrapprox` (\gtrapprox), 250
 - `\gtrdot` (\gtrdot), 250
 - `\gtreqless` (\gtrless), 250
 - `\gtreqqless` (\gtrless), 103, 250
 - `\gtrless` (\gtrless), 250
 - `\gtrsim` (\gtrsim), 250
 - `\gvertneqq` (\gtrneqq), 250
 - `\in` (\in), 103
 - `\inplus` (\in), 250
 - `\Join` (\Join), 103
 - `\leq` (\leq), 103
 - `\leqq` (\leqq), 250
 - `\leqslant` (\leqslant), 250
 - `\lessapprox` (\lesssim), 250
 - `\lessdot` (\leqdot), 250
 - `\lesseqgtr` (\lesseqgtr), 250
 - `\lesseqqgtr` (\lesseqqgtr), 250
 - `\lessgtr` (\lessgtr), 250
 - `\lesssim` (\lesssim), 250
 - `\ll` (\ll), 103
 - `\lll` (\lll), 250
 - `\Inapprox` (\lesapprox), 250
 - `\Ineq` (\les), 250
 - `\Ineqq` (\les), 250
 - `\Insim` (\les), 250
 - `\lvertneqq` (\lesneqq), 250
 - `\mid` (\mid), 103
 - `\models` (\models), 103
 - `\ncong` (\ncong), 250
 - `\neq` (\neq), 103
 - `\ngeq` (\ngtr), 250
 - `\ngeqq` (\ngtr), 250
 - `\ngeqslant` (\ngtr), 250
 - `\ngtr` (\ngtr), 250
 - `\ni` (\ni), 103
 - `\niplus` (\ni), 250
 - `\nleq` (\nless), 250
 - `\nleqq` (\nless), 250
 - `\nleqslant` (\nless), 250
 - `\nless` (\nless), 250
 - `\nmid` (\nmid), 250
 - `\not<` ($\not<$), 103
 - `\not>` ($\not>$), 103
 - `\not=` (\neq), 103
 - `\not\approx` ($\not\approx$), 103
 - `\not\equiv` (\neq), 103
 - `\not\in` (\notin), 103
 - `\not\parallel` ($\not\parallel$), 103
 - `\not\sim` ($\not\sim$), 103
 - `\nparallel` ($\not\parallel$), 250
 - `\nprec` (\nprec), 250
 - `\npreceq` (\nprec), 250
 - `\nshortmid` (\nshortmid), 250
 - `\nshortparallel` (\nshortparallel), 250
 - `\nsim` (\nsim), 250
 - `\nsubseteq` ($\not\subseteq$), 250
 - `\nsubseteqq` ($\not\subseteq$), 250
 - `\nsucc` (\nsucc), 250
 - `\nsucceq` (\nsucc), 250
 - `\nsupseteq` ($\not\supseteq$), 250
 - `\nsupseteqq` ($\not\supseteq$), 250
 - `\ntriangleleft` (\ntriangleleft), 250
 - `\ntrianglelefteq` (\ntrianglelefteq), 250
 - `\ntrianglelefteqslant` (\ntrianglelefteqslant), 250
 - `\ntriangleright` (\ntriangleright), 250
 - `\ntrianglerighteq` (\ntrianglerighteq), 250

- `\ntrianglerighteqslant` (\ntrianglerighteqslant), 250
- `\nVDash` (\nVdash), 250
- `\nvDash` (\nvDash), 250
- `\nvdash` (\nvdash), 250
- `\parallel` (\parallel), 103
- `\perp` (\perp), 103
- `\pitchfork` (\pitchfork), 250
- `\prec` (\prec), 103
- `\precapprox` (\precapprox), 250
- `\preccurlyeq` (\preccurlyeq), 250
- `\preceq` (\preceq), 103
- `\precnapprox` (\precnapprox), 250
- `\precnsim` (\precnsim), 250
- `\precsim` (\precsim), 250
- `\propto` (\propto), 103
- `\risingdotseq` (\risingdotseq), 250
- `\shortmid` (\shortmid), 250
- `\shortparallel` (\shortparallel), 250
- `\sim` (\sim), 103
- `\simeq` (\simeq), 103
- `\smallfrown` (\smallfrown), 250
- `\smallsmile` (\smallsmile), 250
- `\smile` (\smile), 103
- `\sqsubset` (\sqsubset), 250
- `\sqsubseteq` (\sqsubseteq), 103
- `\sqsupset` (\sqsupset), 250
- `\sqsupseteq` (\sqsupseteq), 103
- `\Subset` (\Subset), 250
- `\subset` (\subset), 103
- `\subseteq` (\subseteq), 103
- `\subseteqq` (\subseteqq), 250
- `\subsetneq` (\subsetneq), 250
- `\subsetneqq` (\subsetneqq), 250
- `\subsetplus` (\subsetplus), 250
- `\subsetpluseq` (\subsetpluseq), 250
- `\succ` (\succ), 103
- `\succapprox` (\succapprox), 250
- `\succcurlyeq` (\succcurlyeq), 250
- `\succeq` (\succeq), 103
- `\succnapprox` (\succnapprox), 250
- `\succnsim` (\succnsim), 250
- `\succsim` (\succsim), 250
- `\Supset` (\Supset), 250
- `\supset` (\supset), 103
- `\supseteq` (\supseteq), 103
- `\supseteqq` (\supseteqq), 250
- `\supsetneq` (\supsetneq), 250
- `\supsetneqq` (\supsetneqq), 250
- `\supsetplus` (\supsetplus), 250
- `\supsetpluseq` (\supsetpluseq), 250
- `\therefore` (\therefore), 250
- `\thickapprox` (\thickapprox), 250
- `\thicksim` (\thicksim), 250
- `\trianglelefteqslant` (\trianglelefteqslant), 250
- `\triangleq` (\triangleq), 250
- `\trianglerighteq` (\trianglerighteq), 250
- `\trianglerighteqslant` (\trianglerighteqslant), 250
- `\varpropto` (\varpropto), 250
- `\varsubsetneq` (\varsubsetneq), 250
- `\varsubsetneqq` (\varsubsetneqq), 250
- `\varsupsetneq` (\varsupsetneq), 250
- `\varsupsetneqq` (\varsupsetneqq), 250
- `\vartriangleright` (\vartriangleright), 250
- `\Vdash` (\Vdash), 250
- `\VDash` (\VDash), 250
- `\vdash` (\vdash), 103
- `\Vvdash` (\Vvdash), 250
- `\renewcommand{...}`, 28, 106, 128, 154, *see also* Users macros
- `\renewenvironment{...}`, 135, *see also* Users macros
- Report, 191, *see also* Book
- report, 2, 27, 191, *see also* Book
- `\resizebox{...}`, 169, *see also* Geometric transformation
- `\rfloor` (\rfloor), 252, *see also* Delimiter
- `\rfoot[...]`, 43, 178, *see also* Page style
- rgb, 13, *see also* Font (color)
- `\rgroup` (\rgroup), 252, *see also* Delimiter
- `\rhd` (\rhd), 103, *see also* Binary operator
- `\rhead[...]`, 43, 178, *see also* Page style
- `\rho` (ρ), 249, *see also* Greek letter
- right, 101, 109, *see also* Delimiter
- `\Rightarrow` (\Rightarrow), 251, *see also* Arrow
- `\rightarrow` (\rightarrow), 251, *see also* Arrow
- `\rightarrowtail` (\rightarrowtail), 251, *see also* Arrow
- `\rightarrowtriangle` (\rightarrowtriangle), 251, *see also* Arrow
- `\rightharpoondown` (\rightharpoondown), 251, *see also* Arrow
- `\rightharpoonup` (\rightharpoonup), 251, *see also* Arrow
- `\rightleftarrows` (\rightleftarrows), 251, *see also* Arrow
- `\rightleftharpoons` (\rightleftharpoons), 251, *see also* Arrow
- rightmark, 45, *see also* Page style
- `\rightrightarrows` (\rightrightarrows), 251, *see also* Arrow
- `\rightslice` (\rightslice), 249, *see also* Binary operator
- `\rightsquigarrow` (\rightsquigarrow), 251, *see also* Arrow
- `\rightthreetimes` (\rightthreetimes), 249, *see also* Binary operator
- `\risingdotseq` (\risingdotseq), 250, *see also* Relation operator
- `\{rm}`, 10, *see also* Font family

`\rmfamily`, 10, *see also* Font family
`\rmoustache`(`_`), 252, *see also* Delimiter
Rochester, 210, *see also* Slide presentation
Roman, **roman**, 47, 191, 198, *see also* Numbering
`\Roman`{}, `\roman`{}, 29, 51, 86, *see also* Numbering
rose, 211, *see also* Slide presentation
rotate, 166, *see also* Boxed texts
`\rotatebox`{}, 100, 169, *see also* Figure (drawing), Geometric transformation,
rotating, 62, 75, 75, 99, 166, *see also* Boxed texts, Figure (drawing), Table
round, 149, *see also* Bibliography
rounded, 212, *see also* Slide presentation
`\rowcolor`[gray]{}, 68, *see also* Table
`\rowcolor`{}, `\rowcolor`{}[{}], 68, *see also* Table
`\rrbracket`(`]`), 252, *see also* Delimiter
`\rrceil`(`]̣`), 252, *see also* Delimiter
`\rrfloor`(`]̤`), 252, *see also* Delimiter
`\rrparenthesis`(`)̣`), 251, *see also* Arrow
`\Rsh`(`ʀ`), 251, *see also* Arrow
`\rtimes`(`⋈`), 249, *see also* Binary operator
Rule, 132, *see also* Users macros
`\rule`[{}]{}, 171
ruled, 133, *see also* Users macros

S s

`\S`(`§`), 17, 248, *see also* Symbol (text)
`\sb`{}, 176, *see also* Equation, Verbatim text
`{\sc}`, 10, *see also* Font shape
`\scalebox`[{}][{}]{}, 169, *see also* Geometric transformation
school, 142, *see also* Bibliography
`{\scriptsize}`, 10, *see also* Font size
`\scriptsize`, 10, *see also* Font size
`\scshape`, 10, *see also* Font shape
seagull, 211, *see also* Slide presentation
seahorse, 211, *see also* Slide presentation
`\searrow`(`\↘`), 251, *see also* Arrow
`\sec`~`x`(`sec x`), 252, *see also* Function (math)
`\secnumdepth`, 27, *see also* Sectional unit
section, 29, 106, *see also* Sectional unit
`\section*`{}, 16, 28, *see also* Sectional unit
Section-wise item numbering, 106
`\section`[{}]{}, 154, *see also* Sectional unit
`\section`{}, 15, 27, 183, *see also* Sectional unit
Sectional unit

`\addtocounter`{}, 27
chapter, 29
`\chapter*`{}, 16, 27
`\chapter`[{}]{}, 153
`\chapter`{}, 15, 16, 153
`\chaptermark`, 42
`\chaptername`, 28, 42
`\markboth`{}, 42
`\markright`{}, 42
`\paragraph`{}, 15
`\part`{}, 27
`\secnumdepth`, 27
section, 29
`\section*`{}, 16, 28
`\section`[{}]{}, 154
`\section`{}, 15, 16, 183
`\setcounter`{}, 27, 29
`\subparagraph`{}, 15, 27
`\subsection*`{}, 16, 28
`\subsection`[{}]{}, 205
`\subsection`{}, 15, 16, 183
`\subsectionmark`, 42
`\subsubsection*`{}, 16
`\subsubsection`{}, 15, 27
`\thechapter`, 28, 42, 198
`\thepart`, 190, 198
`\thesection`, 28, 42, 189, 190
`\thesubsection`, 29, 42

`see`{}, 159, *see also* Index
`seealso`{}, 159, *see also* Index
series, 142, *see also* Bibliography
`\setbeamertemplate`[{}][{}], 223, *see also* Slide
`\setcounter`{}, 27, 29, *see also* Sectional unit
`\setcounter`{page}{}, 47, *see also* Page numbering
`\sethlcolor`{}, 173, *see also* Highlighted texts
`\setlength`{}, 38, *see also* Length
`\setminus`(`\`), 103, *see also* Binary operator
setspace, 19, 182, 236, *see also* Line spacing
`\settimeformat`{}, 173, *see also* Time
`\SetWatermarkAngle`{}, 177, *see also* Watermarking
`\SetWatermarkScale`{}, 177, *see also* Watermarking
`\SetWatermarkText`{}, 177, *see also* Watermarking
`{\sf}`, 10, *see also* Font family
`\sffamily`, 10, *see also* Font family

- `\shabox{}`, 161, *see also* Boxed texts
- shadow**, 162, 213, *see also* Boxed texts, Slide
- `\shadowbox{}`, 161, *see also* Boxed texts
- shapepar**, 179, *see also* Paragraph
- `\shapepar\nutshape{}`, 179, *see also* Paragraph
- `\sharp` (\sharp), 253, *see also* Symbol (misc)
- `\shortdate`, 172, *see also* Date
- `\shortdownarrow` (\downarrow), 251, *see also* Arrow
- `\shortleftarrow` (\leftarrow), 251, *see also* Arrow
- `\shortmid` (\mid), 250, *see also* Relation operator
- `\shortmonthname`[], 172, *see also* Date
- `\shortparallel` (\parallel), 250, *see also* Relation operator
- `\shortrightarrow` (\rightarrow), 251, *see also* Arrow
- `\shortstack[]{ }`, 178, *see also* Equation, Stacking
- `\shortuparrow` (\uparrow), 251, *see also* Arrow
- `\show`, 129
- shrink**, 214, *see also* Slide presentation
- sidebar**, 213, *see also* Slide presentation
- sidebartab**, 211, *see also* Slide presentation
- `\sideset{ }{ }`, 122, *see also* Equation, Stacking
- sideways**, 62, 75, 166, *see also* Boxed texts, Table
- sidewaysfigure**, 87, *see also* Figure
- sidewaystable**, 59, 75, 76, *see also* Table
- `\Sigma` (Σ), 249, *see also* Greek letter
- `\sigma` (σ), 249, *see also* Greek letter
- `\signature{}`, 181, *see also* Letter
- `\sim` (\sim), 103, *see also* Relation operator
- `\simeq` (\simeq), 103, *see also* Relation operator
- `\sin\sim x` ($\sin x$), 252, *see also* Function (math)
- Singapore**, 210, *see also* Slide
- singlespace**, 19, *see also* Line spacing
- `\sinh\sim x` ($\sinh x$), 252, *see also* Function (math)
- `{\sl}`, 10, *see also* Font shape
- slide**, 2, *see also* Document
- Slide presentation
 - `+-`, 218, 219
 - `<>`, 219
 - `alert@`, 221
 - `\alert<>{ }`, 220
 - `alertblock`, 223
 - `allowdisplaybreaks`, 215
 - `allowframebreaks`, 209, 215
 - `\alt<>{ }{ }`, 220
 - `\and`, 208
 - `aspectratio`, 214
 - `\author[]{ }`, 208
 - `beamer`, 203
 - `beamerboxesrounded`, 223
 - `\beamerbutton{ }`, 227
 - `\beamergetobutton{ }`, 227
 - `\beamerreturnbutton{ }`, 227
 - `\beamerSKIPbutton{ }`, 227
 - `block`, 223
 - `\color<>[]{ }`, 220
 - Color theme, 210
 - `\column{ }`, 226
 - `columns`, 226
 - `containsverbatim`, 204
 - `corollary`, 224
 - `correctsection`, 217
 - `correctsubsection`, 218
 - `\date[]{ }`, 208
 - `definition, definitions`, 224
 - `\epsfig{ }`, 225
 - `example`, 224
 - `exampleblock`, 223
 - `examples`, 224
 - `extsize`, 214
 - `fact`, 224
 - `fancyvrb`, 204
 - Font theme, 211
 - `frame`, 203
 - `\frame[]{ }`, 203
 - `\framesubtitle{ }`, 204, 247
 - `\frametitle{ }`, 204, 247
 - `\hyperlink<>{ }`, 227
 - `\hyperlinkframeend<>{ }`, 227
 - `\hyperlinkframeendprev<>{ }`, 227
 - `\hyperlinkframestart<>{ }`, 227
 - `\hyperlinkframestartnext<>{ }`, 227
 - `\hyperlinkpresentationend<>{ }`, 227
 - `\hyperlinkpresentationstart<>{ }`, 227
 - `\includegraphics<>[]{ }`, 225
 - `\includegraphics[]{ }`, 225
 - Inner theme, 212
 - `\inst{ }`, 208
 - `\institute[]{ }`, 207
 - `\invisible<>{ }`, 220
 - `invisibleenv`, 223
 - `\item<>`, 220
 - `label`, 227
 - `\logo{ }`, 204
 - `\only<>{ }`, 220
 - `\onslide<>{ }`, 220

- Outer theme, 212
- `\pause`, 218
- `pausesections`, 217
- `pausesubsections`, 217
- Presentation theme, 209
- `proof`, 224
- `\setbeamertheme{ }[]`, 223
- `shrink`, 214
- `squeeze`, 214
- `\subtitle{ }`, 207
- `\tableofcontents`, 217
- `\temporal<>{ }{ }`, 220
- `\textbf<>{ }`, 220
- `\textit<>{ }`, 220
- `\textrm<>{ }`, 220
- `\textsf<>{ }`, 220
- `\textsl<>{ }`, 220
- `theorem`, 224
- `\title[]{ }`, 207
- `\titlegraphic{ }`, 207, 208
- `\titlepage`, 207
- `\uncover<>{ }`, 220
- `uncoverenv`, 223
- `\usetheme{ }`, 209
- `\verb" "`, 204, 208
- `verbatim`, 204, 208
- `\visible<>{ }`, 220
- `visibleenv`, 223
- Slide presentation (color theme)
 - `albatross`, 211
 - `beaver`, 211
 - `beetle`, 211
 - `crane`, 211
 - `default`, 211
 - `dolphin`, 211
 - `dove`, 211
 - `fly`, 211
 - `lily`, 211
 - `monarca`, 211
 - `orchid`, 211
 - `rose`, 211
 - `seagull`, 211
 - `seahorse`, 211
 - `sidebartab`, 211
 - `spruce`, 211
 - `structure`, 211
 - `\usecolortheme[]{ }`, 209
 - `whale`, 211
 - `wolverine`, 211
- Slide presentation (font theme)
 - `default`, 212
 - `serif`, 212
 - `structurebold`, 212
 - `structureitalicserif`, 212
 - `structuresmallcapserif`, 212
 - `\usefonttheme[]{ }`, 209
- Slide presentation (inner theme)
 - `circles`, 212
 - `default`, 212
 - `inmargin`, 212
 - `rectangles`, 212
 - `rounded`, 212
 - `\useinnertheme[]{ }`, 209
- Slide presentation (outer theme)
 - `default`, 213
 - `infolines`, 213
 - `miniframes`, 213
 - `shadow`, 213
 - `sidebar`, 213
 - `smoothbars`, 213
 - `smoothtree`, 213
 - `split`, 213
 - `tree`, 213
 - `\useoutertheme[]{ }`, 209
- Slide presentation (presentation theme)
 - `AnnArbor`, 210
 - `Antibes`, 210
 - `Bergen`, 210
 - `Berkeley`, 210
 - `Berlin`, 210
 - `Boadilla`, 210
 - `boxes`, 210
 - `CambridgeUS`, 210
 - `Copenhagen`, 210
 - `Darmstadt`, 210
 - `default`, 210
 - `Dresden`, 210
 - `EastLansing`, 210
 - `Frankfurt`, 210
 - `Goettingen`, 210
 - `Hannover`, 210
 - `Ilmenau`, 210
 - `JuanLesPins`, 210
 - `Luebeck`, 210
 - `Madrid`, 210
 - `Malmoe`, 210
 - `Marburg`, 210
 - `Montpellier`, 210
 - `PaloAlto`, 210
 - `Pittsburgh`, 210
 - `Rochester`, 210
 - `Singapore`, 210
 - `Szeged`, 210
 - `\usetheme[]{ }`, 209
 - `Warsaw`, 210
- `sloppypar`, 25, *see also* Hyphenating

- `\slshape`, 10, *see also* Font shape
- `{\small}`, 10, *see also* Font size
- `\small`, 10, *see also* Font size
- `\smallfrown` (\frown), 250, *see also* Relation operator
- `smallmatrix`, 117, *see also* Equation
- `\smallsetminus` (\setminus), 249, *see also* Binary operator
- `\smallsmile` (\smile), 250, *see also* Relation operator
- `\smile` (\smile), 103, *see also* Relation operator
- `smoothbars`, 213, *see also* Slide presentation
- `smoothtree`, 213, *see also* Slide presentation
- `sort`, 149, *see also* Bibliography
- `sort&compress`, 149, *see also* Bibliography
- `soul`, 173, *see also* Highlighted texts
- `\sout{}`, 12, *see also* Emphasized texts
- `\sp{}`, 164, *see also* Equation, Verbatim text
- `spacing`, 6, 19, 182, 197, *see also* Line spacing
- `\spadesuit` (\spadesuit), 253, *see also* Symbol (misc)
- `\sphericalangle` (\sphericalangle), 253, *see also* Symbol (misc)
- `split`, 116, 213, *see also* Equation, Slide
- `spruce`, 211, *see also* Slide presentation
- `\sqcap` (\sqcap), 103, *see also* Binary operator
- `\sqcup` (\sqcup), 103, *see also* Binary operator
- `\sqrt[n]{x}` ($\sqrt[n]{x}$), 252, *see also* Accent (math)
- `\sqrt{x}` (\sqrt{x}), 252, *see also* Accent (math)
- `\sqsubset` (\sqsubset), 250, *see also* Relation operator
- `\sqsubseteq` (\sqsubseteq), 103, *see also* Relation operator
- `\sqsupset` (\sqsupset), 250, *see also* Relation operator
- `\sqsupseteq` (\sqsupseteq), 103, *see also* Relation operator
- `square`, 149, *see also* Bibliography
- `\square` (\square), 253, *see also* Symbol (misc)
- `\squarepar{}`, 179, *see also* Paragraph
- `squeeze`, 214, *see also* Slide
- `\ss` (\ss), 248, *see also* Symbol (text)
- `\ssetminus` (\setminus), 251, *see also* Arrow
- `\sslash` (\sslash), 249, *see also* Binary operator
- `\sswarrow` (\swarrow), 251, *see also* Arrow
- Stacking (equations)
 - `\overleftarrow{}`, 121
 - `\overrightarrow{}`, 121
 - `\overset{}`, 121
 - `\sideset{}`, 122
 - `\stackrel{}`, 120
 - `subarray`, 122
 - `\substack{}`, 122
 - `\underleftarrow{}`, 121
 - `\underrightarrow{}`, 121
 - `\underset{}`, 121
- `\stackrel{}`, 147, *see also* Equation, Stacking
- `\star` (\star), 103, *see also* Binary operator
- `stmaryrd`, 248, *see also* Symbol (math)
- `structure`, 211, *see also* Slide presentation
- `structurebold`, 212, *see also* Slide presentation
- `structureitalicserif`, 212, *see also* Slide
- `structuresmallcapserif`, 212, *see also* Slide
- `subarray`, 122, *see also* Equation, Stacking
- `subequations`, 111, *see also* Equation
- `subfig`, 85, *see also* Figure
- `subfigure`, 85, *see also* Figure
- `\subfigure[]{}`, 85, *see also* Figure
- `\subfloat[]{}`, 85, *see also* Figure
- `\subparagraph{}`, 15, 183, *see also* Sectional unit
- `\subsection*`, 16, 28, *see also* Sectional unit
- `\subsection{}`, 15, 27, 183, *see also* Sectional unit
- `\subsectionmark`, 51, *see also* Sectional unit
- `\Subset` (\Subset), 250, *see also* Relation operator
- `\subset` (\subset), 103, *see also* Relation operator
- `\subseteq` (\subseteq), 103, *see also* Relation operator
- `\subseteqq` (\subseteqq), 250, *see also* Relation operator
- `\subsetneq` (\subsetneq), 250, *see also* Relation operator
- `\subsetneqq` (\subsetneqq), 250, *see also* Relation operator
- `\subsetplus` (\subsetplus), 250, *see also* Relation operator
- `\subsetplusseq` (\subsetplusseq), 250, *see also* Relation operator
- `\substack{}`, 122, *see also* Equation, Stacking
- `\subsubsection*`, 16, *see also* Sectional unit
- `\subsubsection{}`, 15, 27, *see also* Sectional unit

- `\subtitle{}`, 208, *see also* Slide presentation
- `\succ` (\succ), 103, *see also* Relation operator
- `\succapprox` (\succapprox), 250, *see also* Relation operator
- `\succcurlyeq` (\succcurlyeq), 250, *see also* Relation operator
- `\succeq` (\succeq), 103, *see also* Relation operator
- `\succnapprox` (\succnapprox), 250, *see also* Relation operator
- `\succsim` (\succsim), 250, *see also* Relation operator
- `\succsimeq` (\succsimeq), 250, *see also* Relation operator
- `\sum_{\{ }\{ }`, 102, *see also* Equation
- `\sup` (sup), 252, *see also* Function (math)
- super**, 149, *see also* Bibliography
- `\Supset` (\supset), 250, *see also* Relation operator
- `\supset` (\supset), 103, *see also* Relation operator
- `\supseteq` (\supseteq), 103, *see also* Relation operator
- `\supseteqq` (\supseteqq), 250, *see also* Relation operator
- `\supsetneq` (\supsetneq), 250, *see also* Relation operator
- `\supsetneqq` (\supsetneqq), 250, *see also* Relation operator
- `\supsetplus` (\supsetplus), 250, *see also* Relation operator
- `\supsetplusseq` (\supsetplusseq), 250, *see also* Relation operator
- `\surd` (\surd), 253, *see also* Symbol (misc)
- `\swarrow` (\swarrow), 251, *see also* Arrow
- Symbol (math-mode)
 - `\amsmath`, 248
 - `\amssymb`, 248
 - `\boldsymbol{ }`, 248
 - `\stmaryrd`, 248
- Symbol (miscellaneous)
 - `\aleph` (\aleph), 253
 - `\angle` (\angle), 253
 - `\backprime` (\backprime), 253
 - `\Bbbk` (\mathbb{k}), 253
 - `\beth` (\beth), 253
 - `\bigstar` (\bigstar), 253
 - `\blacklozenge` (\blacklozenge), 253
 - `\blacksquare` (\blacksquare), 253
 - `\blacktriangle` (\blacktriangle), 253
 - `\blacktriangledown` (\blacktriangledown), 253
 - `\bot` (\perp), 253
 - `\Box` (\square), 253
 - `\cdot` (\cdot), 72
 - `\cdots` (\cdots), 253
 - `\circledS` (\circledS), 253
 - `\clubsuit` (\clubsuit), 253
 - `\complement` (\complement), 253
 - `\daleth` (\daleth), 253
 - `\ddots` (\ddots), 253
 - `\diamondsuit` (\diamond), 253
 - `\ell` (ℓ), 253
 - `\emptyset` (\emptyset), 253
 - `\eth` (\eth), 253
 - `\exists` (\exists), 253
 - `\Finv` (\Finv), 253
 - `\flat` (\flat), 253
 - `\forall` (\forall), 253
 - `\Game` (\Game), 253
 - `\gimel` (\gimel), 253
 - `\hbar` (\hbar), 253
 - `\heartsuit` (\heartsuit), 253
 - `\hslash` (\hbar), 253
 - `\Im` (\Im), 253
 - `\imath` (i), 253
 - `\infty` (∞), 253
 - `\jmath` (j), 253
 - `\lozenge` (\lozenge), 253
 - `\measuredangle` (\sphericalangle), 253
 - `\mho` (\mho), 253
 - `\nabla` (∇), 253
 - `\natural` (\natural), 253
 - `\neg` (\neg), 253
 - `\nexists` (\nexists), 253
 - `\partial` (∂), 253
 - `\prime` (\prime), 253
 - `\Re` (\Re), 253
 - `\sharp` (\sharp), 253
 - `\spadesuit` (\spadesuit), 253
 - `\sphericalangle` (\sphericalangle), 253
 - `\square` (\square), 253
 - `\surd` (\surd), 253
 - `\top` (\top), 253
 - `\qed`, 224
 - `\triangledown` (\triangledown), 253
 - `\varnothing` (\emptyset), 253
 - `\vartriangle` (\triangle), 253
 - `\wp` (\wp), 253
- Symbol (text-mode)
 - `?'` (?), 248
 - `\#` ($\#$), 248
 - `\$` ($\$$), 248
 - `\%` ($\%$), 248
 - `\&` ($\&$), 248
 - `\^` (^), 248
 - `_` (_), 248
 - `\{ }` ($\{ \}$), 248

`\AA` (Å), 248
`\aa` (å), 248
`\AE` (Æ), 248
`\ae` (æ), 248
`\copyright` (©), 248
`\dag` (†), 248
`\ddag` (‡), 248
`\LaTeX` (L^AT_EX), 18, 248
`\ldots` (...), 248
`\O` (Ø), 248
`\o` (ø), 248
`\OE` (Œ), 248
`\oe` (œ), 248
`\P` (ℙ), 248
`\pounds` (£), 248
`\qed`, 224
`\S` (§), 17, 248
`\ss` (ß), 248

`\vdots` (⋮), 248
Szeged, 210, *see also* Slide presentation

T t

`\t{oo}` (ōō), 247, *see also* Accent (text)

Tabbing

- `\'`, 58
- `\=`, 57
- `\>`, 57
- `\|`, 57
- `\`{}`, 58
- `\a'{}o` (ó), 58
- `\a={}o` (ō), 58
- `\a'{}o` (ò), 58
- `\hspace*{}`, `\hspace{}`, 57
- `\kill`, 57
- `tabbing`, 57

tabbing, 54, *see also* Tabbing

`\tabcolsep`, 64, 69, 70, *see also* Table

Table

- !, 62
- `!hbt`, 60, 62
- `*{}{}`, 64
- `>{}{}`, 64
- `>{}$ <{}$`, 64
- `@{}{}`, 64, 70
- `@{\extracolsep{}{}}`, 185
- `&`, 60
- `\|`, 60
-], 60
- `\abovecaptionskip`, 79, *see also* Figure
- `\addlinespace[n]`, 65
- `array`, 63, 64

- `\arrayrulewidth`, 65
- `b{}{}`, 63
- `\begin{tabular}{}{}`, 60
- `\belowcaptionskip`, 79, *see also* Figure
- `booktabs`, 65
- `\bottomrule[n]`, 65
- `caption`, 79, *see also* Figure
- `\caption{}{}`, 60, 73, 76, *see also* Figure
- `\captionsetup{}{}`, 79, *see also* Figure
- `\cellcolor[gray]{}{}`, 68
- `\cellcolor{}{}`, 68
- `\centering`, 60
- `\cline{}{}`, 65, 67
- `colortbl`, 68
- `\columncolor[gray]{}{}`, 68
- `\columncolor{}{}`, 68–69
- `\columncolor{}{}{}`, 69
- `\columnwidth`, 63
- `D{}{}{}` (Decimal point alignment), 71
- `dcolumn`, 71
- `\def{tablename}{}{}`, 70
- `endfloat`, 80, *see also* Figure
 - `\nomarkersintext`, 80
 - `\notablist`, 80
 - `\tablename`, 80
 - `\tableplace`, 80
 - `\theposttbl`, 80
- `\extrarowheight`, 65
- `float`, 62, 133
- `\footnote{}{}`, 78, *see also* Foot note
- `\footnotemark`, 78, *see also* Foot note
- `\footnotetext{}{}`, 78, *see also* Foot note
- H, h, 62
- `\hline`, 60
- `\label{}{}`, 60, 74
- `longtable`, 59, 76
 - `\caption{}{}`, 76
 - `\endfirsthead`, 76
 - `\endfoot`, 77
 - `\endhead`, 76
 - `\endlastfoot`, 77
 - `\label{}{}`, 77
 - `\tablename`, 76
 - `\thetable`, 76
- `m{}{}`, 63
- `\midrule[n]`, 65
- `minipage`, 73
- `\multicolumn{}{}{}`, 66
- `multirow`, 66
- `\multirow{}{}{}`, 66
- Nested tables, 71
- `\newcolumntype{}{}{}`, 65, 69
- `p{}{}`, 63

- rotating**, 62, 75
- `\rowcolor[gray]{}`, 68
- `\rowcolor{}`, 68
- `\rowcolor{}[[]]`, 69
- sideways**, 62, 73
- sidewaystable**, 59, 75
- `\tabcolsep`, 64, 69, 70
- table**, 59, 60, 106
- table***, 31, 78
- tabular**, 59
- tabularx**, 59, 60
 - X**, 61
 - `\centering\arraybackslash`, 61
 - `\linewidth`, 61
 - `\raggedleft\arraybackslash`, 61
 - `\raggedright\arraybackslash`, 61
 - `\thetable`, 106, 189
 - `\toprule[[]]`, 65
 - `\vrule`, 65
- wrapfig**, 68, *see also* Figure
- wraptable**, 59, 68
- table**, 59, 60, 106, *see also* Table
- table***, 31, 78, *see also* Table
- `\tablename`, 76, 80, *see also* Table
- `\tableofcontents`, 153, 192, 217, *see also* Contents
- `\tableplace`, 80, *see also* Table
- tabular**, 59, 165, *see also* Table
- tabularx**, 6, 59, 60, *see also* Table
- tabwindow**, 178, *see also* Paragraph
- `\tag*{}`, `\tag{}`, 105, 109, *see also* Equation
- `\talloblong()`, 249, *see also* Binary operator
- `\tan~x` ($\tan x$), 252, *see also* Function (math)
- `\tanh~x` ($\tanh x$), 252, *see also* Function (math)
- `\tau` (τ), 249, *see also* Greek letter
- `\temporal<>{}{}`, 220, *see also* Slide
- Text processing
 - LR-mode, 9
 - Math-mode, 9
 - Paragraph-mode, 9
 - Text-mode, 9
- Text-mode, 9, *see also* Text processing
- Text-mode equation
 - `\()`, 104
 - `$$`, 7, 104
 - `math`, 104
- `\text{}`, 113, *see also* Equation
- `\textbf<>{}`, 220, *see also* Slide
- `\textbf{}`, 10, *see also* Font series
- `\textcolor{}{}`, 14, 93, *see also* Font (color)
- `\textdate`, 172, *see also* Date
- `\textheight`, 23, 38, *see also* Page layout
- `\textit<>{}`, 220, *see also* Slide presentation
- `\textit{}`, 10, *see also* Font shape
- `\textmd{}`, 10, *see also* Font series
- `\textrm<>{}`, 220, *see also* Slide presentation
- `\textrm{}`, 10, *see also* Font family
- Texts in figures, 97, *see also* Figure (drawing)
- `\textsc{}`, 10, *see also* Font shape
- `\textsf<>{}`, 220, *see also* Slide presentation
- `\textsf{}`, 10, *see also* Font family
- `\textsl<>{}`, 220, *see also* Slide presentation
- `\textsl{}`, 10, *see also* Font shape
- `\texttt{}`, 10, *see also* Font family
- `\textup{}`, 10, *see also* Font shape
- `\textwidth`, 23, 38, *see also* Page layout
- `\thanks{}`, 186, *see also* Article
- thebibliography**, 137, 141, *see also* Bibliography
- `\thechapter`, 28, 42, 198, *see also* Sectional unit
- `\THEDAY`, 172, *see also* Date
- `\theenumi`, 50, *see also* Listing
- `\theenumii`, 50, *see also* Listing
- `\theenumiii`, 50, *see also* Listing
- `\theenumiv`, 50, *see also* Listing
- `\theequation`, 106, 189, *see also* Equation
- `\thefigure`, 106, 189, *see also* Figure
- `\thefootnote`, 34, *see also* Foot note
- `\THEMONTH`, 172, *see also* Date
- `\thempfootnote`, 34, *see also* Foot note, Mini page
- Theorem, 131, *see also* Users macros
- theorem**, 224, *see also* Slide presentation
- `\theoremstyle{}`, 132, *see also* Users macros
- `\thepart`, 190, 198, *see also* Sectional unit
- `\thepostfig`, 80, *see also* Figure
- `\theposttbl`, 80, *see also* Table
- `\therefore` (\therefore), 250, *see also* Relation operator
- `\thesection`, 28, 42, 189, *see also* Sectional unit
- `\thesubfigure`, 86, *see also* Figure
- `\thesubsection`, 29, 42, *see also* Sectional unit
- `\Theta` (Θ), 249, *see also* Greek letter
- `\theta` (θ), 249, *see also* Greek letter

`\thetable`, 76, 106, 189, *see also* Table
`\thickapprox` (\approx), 250, *see also* Relation operator
`\thicklines`, 92, *see also* Figure (drawing)
`\thicksim` (\sim), 250, *see also* Relation operator
`\thickspace`, 22, *see also* Blank space
`\thinlines`, 92, *see also* Figure (drawing)
`\thinspace`, 22, *see also* Blank space
`\thispagestyle{}`, 40, 191, 197, *see also* Page numbering
`\thispagestyle{empty}`, 47, *see also* Page numbering
`\tilde{\imath}` (\tilde{i}), 252, *see also* Accent (math)
`\tilde{\jmath}` (\tilde{j}), 252, *see also* Accent (math)
`\tilde{x}` (\tilde{x}), 252, *see also* Accent (math)
Time
 `\currenttime`, 173
 `\datetime`, 172
 `\settimeformat{}`, 173
 `\ampmtime`, 173
 `\oclock`, 173
 `\xxivtime`, 173
`\times` (\times), 103, *see also* Binary operator
`\tiny`, 10, *see also* Font size
`\tiny`, 10, *see also* Font size
title, 142, *see also* Bibliography
`\title[{}]`, 207, *see also* Slide presentation
`\title{}`, 183, *see also* Article
`\titlegraphic{}`, 207, *see also* Slide presentation
`\titlepage`, 207, *see also* Slide presentation
titlepage, 3, 186, 195, *see also* Document
titletoc, 155, *see also* Contents
`\to` (\rightarrow), 102, 251, *see also* Arrow, Equation
toc, 154, *see also* Contents
tocdepth, 155, *see also* Contents
`\today`, 172, 182, *see also* Date
`\top` (\top), 253, *see also* Symbol (misc)
`\topmargin`, 38, *see also* Page layout
`\toprule[]`, 65, *see also* Table
totalnumber, 133
tree, 213, *see also* Slide presentation
`\triangle` (Δ), 103, *see also* Binary operator
`\triangledown` (∇), 253, *see also* Symbol (misc)
`\triangleleft` (\triangleleft), 103, *see also* Binary operator
`\trianglelefteq` (\trianglelefteq), 250, *see also* Relation operator

`\trianglelefteqslant` (\trianglelefteqslant), 250, *see also* Relation operator
`\triangleq` (\triangleq), 250, *see also* Relation operator
`\triangleright` (\triangleright), 103, *see also* Binary operator
`\trianglerighteq` (\trianglerighteq), 250, *see also* Relation operator
`\trianglerighteqslant` (\trianglerighteqslant), 250, *see also* Relation operator
`\tt`, 10, *see also* Font family
`\ttfamily`, 10, *see also* Font family
turn, 167, *see also* Boxed texts, Table
twocolumn, 3, 29, 187, *see also* Article, Document
`\twocolumn[]`, 29, 188, *see also* Article, Document
`\twodigit{}`, 172, *see also* Date
`\twoheadleftarrow` (\twoheadleftarrow), 251, *see also* Arrow
`\twoheadrightarrow` (\twoheadrightarrow), 251, *see also* Arrow
twoside, 3, 38, 191, *see also* Document
type, 142, *see also* Bibliography

U u

`\u{o}` (\ddot{o}), 247, *see also* Accent (text)
`\ulcorner` (\ulcorner), 252, *see also* Delimiter
ulem, 12, *see also* Emphasized texts
`\ULforem`, 12, *see also* Emphasized texts
`\uncover <>{}`, 220, *see also* Slide presentation
uncoverenv, 223, *see also* Slide presentation
`\underbrace{x}` (\underbrace{x}), 119, 252, *see also* Accent (math), Equation, Stacking
`\underleftarrow{}`, 121, *see also* Stacking
`\underline{}`, 12, 119, *see also* Emphasized texts, Stacking
`\underrightarrow{}`, 121, *see also* Stacking
`\underset{{}{}}`, 102, 121, *see also* Stacking
`\unilength`, 93, *see also* Figure (drawing)
`\unlhd` (\unlhd), 103, *see also* Binary operator
`\unrhd` (\unrhd), 103, *see also* Binary operator
unsrt, 147, *see also* Bibliography
unsrnat, 147, *see also* Bibliography
`\Uparrow` (\Uparrow), 251, *see also* Arrow
`\uparrow` (\uparrow), 251, *see also* Arrow
`\Updownarrow` (\Updownarrow), 251, *see also* Arrow
`\updownarrow` (\updownarrow), 251, *see also* Arrow
`\upharpoonleft` (\upharpoonleft), 251, *see also* Arrow

`\upharpoonright` (\lrcorner), 251, *see also* Arrow
`\uplus` (\uplus), 103, *see also* Binary operator
`\upshape`, 10, *see also* Font shape
`\Upsilon` (Υ), 249, *see also* Greek letter
`\upsilon` (υ), 249, *see also* Greek letter
`\upuparrows` (\Uparrow), 251, *see also* Arrow
`\urcorner` (\urcorner), 251, *see also* Delimiter
`url`, 143, *see also* Bibliography
`url{}`, 143, *see also* Bibliography
`\usdate`, 172, *see also* Date
`\usecolortheme[]{}`, 209, *see also* Slide
`\usefonttheme[]{}`, 209, *see also* Slide
`\useinnertheme[]{}`, 209, *see also* Slide
`\useoutertheme[]{}`, 209, *see also* Slide
`\usepackage{}`, `\usepackage[]{}`, 6, 7
Users macros

`\abstractname`, 128, 129
`amsthm`, 132
`\appendixname`, 129
`\bibname`, 129
`\chaptername`, 129
`\contentsname`, 129
Corollary, 132
Definition, 132
`\floatname{ }{ }`, 133
`\floatstyle{}`, 133
 `boxed`, 133
 `plain`, 133
 `ruled`, 133
`\indexname`, 129
`\labelitemi`, 129
Lemma, 131
`\listfigurename`, 129
`\listof{ }{ }`, 133
`\listtablename`, 129
`\newcommand{ }[]{ }`, 128
`\newcommand{ }[]{ }`, 128
`\newcommand{ }{ }`, 127
`\newenvironment{ }[]{ }{ }`, 131
`\newenvironment{ }[]{ }{ }`, 131
`\newfloat{ }{ }[]{ }`, 133
`\newtheorem*{ }{ }`, 132
`\newtheorem{ }{ }[]{ }`, 131
`\partname`, 129
Principle, 131
Proof, 132
Proposition, 131
`\providecommand{ }{ }`, 125
`\renewcommand{ }[]{ }`, 128
`\renewenvironment{ }{ }{ }`, 135
Rule, 132
Theorem, 132

`\theoremstyle{}`, 132

`break`, 132
 `plain`, 132

`\usethemef[]{}`, 209, *see also* Slide presentation

`\uwave{}`, 12, *see also* Emphasized texts

V v

`\v{o}` (\ddot{o}), 247, *see also* Accent (text)

`\varbigcirc` (\bigcirc), 249, *see also* Binary operator

`\varcurlyvee` (\vee), 249, *see also* Binary operator

`\varcurlywedge` (\wedge), 249, *see also* Binary operator

`\varepsilon` (ε), 249, *see also* Greek letter

`\varioref`, 17, *see also* Page numbering

`\varkappa` (\varkappa), 249, *see also* Greek letter

`\varnothing` (\emptyset), 253, *see also* Symbol (misc)

`\varoast` (\otimes), 249, *see also* Binary operator

`\varobar` ($\overline{\circ}$), 249, *see also* Binary operator

`\varobslash` (\oslash), 249, *see also* Binary operator

`\varocircle` (\odot), 249, *see also* Binary operator

`\varodot` (\odot), 249, *see also* Binary operator

`\varogreatherthan` (\otimes), 249, *see also* Binary operator

`\varolessthan` (\otimes), 249, *see also* Binary operator

`\varominus` (\ominus), 249, *see also* Binary operator

`\varoplus` (\oplus), 249, *see also* Binary operator

`\varoslash` (\oslash), 249, *see also* Binary operator

`\varotimes` (\otimes), 249, *see also* Binary operator

`\varovee` (\vee), 249, *see also* Binary operator

`\varowedge` (\wedge), 249, *see also* Binary operator

`\varphi` (φ), 249, *see also* Greek letter

`\varpi` (ϖ), 249, *see also* Greek letter

`\varpropto` (\propto), 250, *see also* Relation operator

`\varrho` (ϱ), 249, *see also* Greek letter

`\varsigma` (ς), 249, *see also* Greek letter

`\varsubsetneq` (\subsetneq), 250, *see also* Relation operator

`\varsubsetneqq` (\subsetneqq), 250, *see also* Relation operator

`\varsupsetneq` (\supsetneq), 250, *see also* Relation operator
`\varsubsetneqq` (\subsetneqq), 250, *see also* Relation operator
`\vartheta` (ϑ), 249, *see also* Greek letter
`\vartimes` (\times), 249, *see also* Binary operator
`\vartriangle` (Δ), 253, *see also* Symbol (misc)
`\vartriangleright` (\triangleright), 250, *see also* Relation operator
`\Vdash` (\Vdash), 250, *see also* Relation operator
`\VDash` (\equiv), 250, *see also* Relation operator
`\vdash` (\vdash), 103, *see also* Relation operator
`\vdot` (\cdot), 248, *see also* Symbol (text)
`\vec{\imath}` (\mathbf{i}), 252, *see also* Accent (math)
`\vec{\jmath}` (\mathbf{j}), 252, *see also* Accent (math)
`\vec{x}` (\mathbf{x}), 252, *see also* Accent (math)
 Vector, 117, *see also* Equation
`\vector()`{}, 94, *see also* Figure (drawing)
`\vee` (\vee), 103, *see also* Binary operator
`\veebar` (\veebar), 249, *see also* Binary operator
`\verb!`, 174, *see also* Verbatim text
`\verb"`, 7, 174, *see also* Verbatim text
`\verb*!`, 174, *see also* Verbatim text
`\verb*"`, 174, *see also* Verbatim text
 Verbatim text
 `\()`, 176
 `_`, 174
 alltt, 175
 boxedverbatim, 174
 listing, 174
 Mathematical expression and symbol, 175
 moreverb, 174
 `\sb`{}, 176
 `\sp`{}, 176
 `\verb!`, 174
 `\verb"`, 7, 174
 `\verb*!`, 174
 `\verb*"`, 174
 verbatim, 135, 173, 204, 208
`\Vert` (\parallel), 252, *see also* Delimiter
`\vert` ($|$), 252, *see also* Delimiter
`\vfill`, 22, *see also* Blank space
`\visible<>{}`, 220, *see also* Slide presentation
visibleenv, 223, *see also* Slide presentation

Vmatrix, **vmatrix**, 117, *see also* Equation
`\voffset`, 38, *see also* Page layout
volume, 142, *see also* Bibliography
`\pageref[[]]{}`, 18, *see also* Page numbering
`\pageref{}`, 17, *see also* Page numbering
`\vref{}`, 17, *see also* Page numbering
`\vrule`, 65, *see also* Table
`\vskip`, 22, *see also* Blank space
`\vspace*{}`, 23, 195, *see also* Blank space, Book
`\vspace*\{fill\}`, 23, *see also* Blank space
`\vspace{}`, 22, *see also* Blank space
`\Vvdash` (\Vdash), 250, *see also* Relation operator

W w

Warning message, 237
Warsaw, 210, *see also* Slide presentation
 Watermarking
 draftwatermark, 177
 firstpage, 177
 `\SetWatermarkAngle{}`, 177
 `\SetWatermarkScale{}`, 177
 `\SetWatermarkText{}`, 177
`\wedge` (\wedge), 103, *see also* Binary operator
white, 211, *see also* Slide presentation
white, 14, *see also* Font (color)
width, 81, *see also* Figure
window, 178, *see also* Paragraph
wolverine, 211, *see also* Slide presentation
`\wp` (\wp), 253, *see also* Symbol (misc)
`\wr` (\wr), 103, *see also* Binary operator
`\wrapfig`, 68, 86, *see also* Figure, Table
`\wrapfigure`, 86, *see also* Figure
`\wratable`, 59, 68, *see also* Table

X x

X, 61, 63, *see also* Table
 x' (x'), 252, *see also* Accent (math)
xalignat, 107, *see also* Equation
`xfig`, 87
`\Xi` (Ξ), 249, *see also* Greek letter
`\xi` (ξ), 249, *see also* Greek letter
`\xout{}`, 12, *see also* Emphasized texts
xxalignat, 107, *see also* Equation
xxivtime, 173, *see also* Time

Y y

\Ydown(γ), 249, *see also* Binary operator

year, 142, *see also* Bibliography

yellow, 14, *see also* Font (color)

\Yleft(\leftarrow), 249, *see also* Binary operator

\Yright(\rightarrow), 249, *see also* Binary operator

\Yup(λ), 249, *see also* Binary operator

Z z

\zeta(ζ), 249, *see also* Greek letter