LaTeX Math Symbols

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Math Mode Accents

`\acute{a}`	$\acute{a}$
`\bar{a}`	$\bar{a}$
`\breve{a}`	$\breve{a}$
`\check{a}`	$\check{a}$
`\ddot{a}`	$\ddot{a}$
`\dot{a}`	$\dot{a}$
`\grave{a}`	$\grave{a}$
`\hat{a}`	$\hat{a}$
`\mathring{a}`	$\mathring{a}$
`\tilde{a}`	$\tilde{a}$
`\vec{a}`	$\vec{a}$
`\widehat{AAA}`	$\widehat{AAA}$
`\widetilde{AAA}`	$\widetilde{AAA}$

Greek Letters

`\alpha`	α
`\beta`	β
`\gamma`	γ
`\delta`	δ
`\epsilon`	ϵ
`\varepsilon`	ε
`\zeta`	ζ
`\eta`	η
`\Gamma`	Γ
`\Delta`	Δ
`\Theta`	Θ
`\theta`	θ
`\vartheta`	ϑ
`\iota`	ι
`\kappa`	κ
`\lambda`	λ
`\mu`	μ
`\nu`	ν
`\xi`	ξ
`\Lambda`	Λ
`\Xi`	Ξ
`\Pi`	Π

`o`	o
`\pi`	π
`\varpi`	ϖ
`\rho`	ρ
`\varrho`	ϱ
`\sigma`	σ
`\varsigma`	ς
`\tau`	τ
`\Sigma`	Σ
`\Upsilon`	Υ
`\Phi`	Φ
`\upsilon`	υ
`\phi`	ϕ
`\varphi`	φ
`\chi`	χ
`\psi`	ψ
`\omega`	ω
`\Psi`	Ψ
`\Omega`	Ω

Binary Relations

`<`	$<$
`>`	$>$
`=`	$=$
`\leq` `\le`	$\leq$
`\geq` `\ge`	$\geq$
`\equiv`	$\equiv$
`\ll`	$\ll$
`\gg`	$\gg$
`\doteq`	$\doteq$
`\prec`	$\prec$
`\succ`	$\succ$
`\sim`	$\sim$
`\preceq`	$\preceq$
`\succeq`	$\succeq$
`\simeq`	$\simeq$
`\subset`	$\subset$
`\supset`	$\supset$
`\approx`	$\approx$
`\subseteq`	$\subseteq$
`\supseteq`	$\supseteq$
`\cong`	$\cong$

`\sqsubset`	⊏ (Require the `latexsym` package)
`\sqsupset`	⊐ (Require the `latexsym` package)
`\Join`	⋈ (Require the `latexsym` package)
`\sqsubseteq`	⊑
`\sqsupseteq`	⊒
`\bowtie`	⋈
`\in`	∈
`\ni` `\owns`	∋
`\propto`	∝
`\vdash`	⊢
`\dashv`	⊣
`\models`	⊨
`\mid`	∣
`\parallel`	∥
`\perp`	⊥
`\smile`	⌣
`\frown`	⌢
`\asymp`	≍
`:`	:
`\notin`	∉
`\neq` `\ne`	≠

Binary Operators

`+`	$+$
`-`	$-$
`\pm`	$\pm$
`\mp`	$\mp$
`\triangleleft`	$\triangleleft$
`\cdot`	$\cdot$
`\div`	$\div$
`\triangleright`	$\triangleright$
`\times`	$\times$
`\setminus`	$\setminus$
`\star`	$\star$
`\cup`	$\cup$
`\cap`	$\cap$
`\ast`	$\ast$
`\sqcup`	$\sqcup$
`\sqcap`	$\sqcap$
`\circ`	$\circ$
`\vee` `\lor`	$\vee$
`\wedge` `\land`	$\wedge$
`\bullet`	$\bullet$
`\oplus`	$\oplus$

`\ominus`	$\ominus$
`\diamond`	$\diamond$
`\odot`	$\odot$
`\oslash`	$\oslash$
`\uplus`	$\uplus$
`\otimes`	$\otimes$
`\bigcirc`	$\bigcirc$
`\amalg`	$\amalg$
`\bigtriangleup`	$\bigtriangleup$
`\bigtriangledown`	$\bigtriangledown$
`\dagger`	$\dagger$
`\lhd`	$\lhd$ (Require the `latexsym` package)
`\rhd`	$\rhd$ (Require the `latexsym` package)
`\ddagger`	$\ddagger$
`\unlhd`	$\unlhd$ (Require the `latexsym` package)
`\unrhd`	$\unrhd$ (Require the `latexsym` package)
`\wr`	$\wr$

BIG Operators

`\sum`	$\sum$
`\bigcup`	$\bigcup$
`\bigvee`	$\bigvee$
`\prod`	$\prod$
`\bigcap`	$\bigcap$
`\bigwedge`	$\bigwedge$
`\coprod`	$\coprod$
`\bigsqcup`	$\bigsqcup$
`\biguplus`	$\biguplus$
`\int`	$\int$
`\oint`	$\oint$
`\bigodot`	$\bigodot$
`\bigoplus`	$\bigoplus$
`\bigotimes`	$\bigotimes$

Arrows

`\leftarrow` `\gets`	$\leftarrow$
`\longleftarrow`	$\longleftarrow$
`\rightarrow` `\to`	$\rightarrow$
`\longrightarrow`	$\longrightarrow$
`\leftrightarrow`	$\leftrightarrow$
`\longleftrightarrow`	$\longleftrightarrow$
`\Leftarrow`	$\Leftarrow$
`\Longleftarrow`	$\Longleftarrow$
`\Rightarrow`	$\Rightarrow$
`\Longrightarrow`	$\Longrightarrow$
`\Leftrightarrow`	$\Leftrightarrow$
`\Longleftrightarrow`	$\Longleftrightarrow$
`\mapsto`	$\mapsto$
`\longmapsto`	$\longmapsto$
`\hookleftarrow`	$\hookleftarrow$
`\hookrightarrow`	$\hookrightarrow$
`\leftharpoonup`	$\leftharpoonup$
`\rightharpoonup`	$\rightharpoonup$
`\leftharpoondown`	$\leftharpoondown$
`\rightharpoondown`	$\rightharpoondown$
`\rightleftharpoons`	$\rightleftharpoons$

`\iff`	$\iff$	(bigger spaces)
`\uparrow`	$\uparrow$	
`\downarrow`	$\downarrow$	
`\updownarrow`	$\updownarrow$	
`\Uparrow`	$\Uparrow$	
`\Downarrow`	$\Downarrow$	
`\Updownarrow`	$\Updownarrow$	
`\nearrow`	$\nearrow$	
`\searrow`	$\searrow$	
`\swarrow`	$\swarrow$	
`\nwarrow`	$\nwarrow$	
`\leadsto`	$\leadsto$	(Require the `latexsym` package)

Arrows as Accents

`\overrightarrow{AB}`	$\overrightarrow{AB}$
`\underrightarrow{AB}`	$\underrightarrow{AB}$
`\overleftarrow{AB}`	$\overleftarrow{AB}$
`\underleftarrow{AB}`	$\underleftarrow{AB}$
`\overleftrightarrow{AB}`	$\overleftrightarrow{AB}$
`\underleftrightarrow{AB}`	$\underleftrightarrow{AB}$

Delimiters

`(`	(
`)`	)
`\uparrow`	↑
`\lbrack` `[`	[
`\rbrack` `]`	]
`\downarrow`	↓
`\lbrace` `\{`	{
`\rbrace` `\}`	}
`\updownarrow`	↕
`\langle`	⟨
`\rangle`	⟩
`\Uparrow`	⇑
`\vert` `|`	|
`\Vert` `\\|`	‖
`\Downarrow`	⇓
`/`	/
`\backslash`	\
`\Updownarrow`	⇕

`\lfloor`	⌊
`\rfloor`	⌋
`\rceil`	⌉
`\lceil`	⌈

Large Delimiters

`\lgroup`	⟮
`\rgroup`	⟯
`\lmoustache`	⎰
`\arrowvert`	⏐
`\Arrowvert`	‖
`\bracevert`	⎪
`\rmoustache`	⎱

Miscellaneous Symbols

`\dots`	$\dots$
`\cdots`	$\cdots$
`\vdots`	$\vdots$
`\ddots`	$\ddots$
`\hbar`	$\hbar$
`\imath`	$\imath$
`\jmath`	$\jmath$
`\ell`	ℓ
`\Re`	$\Re$
`\Im`	$\Im$
`\aleph`	$\aleph$
`\wp`	$\wp$
`\forall`	$\forall$
`\exists`	$\exists$
`\mho`	$\mho$ (Require the `latexsym` package)
`\partial`	∂
`'`	$'$
`\prime`	$\prime$
`\emptyset`	$\emptyset$
`\infty`	∞
`\nabla`	∇
`\triangle`	$\triangle$

`\Box`	$\Box$ (Require the `latexsym` package)
`\Diamond`	$\Diamond$ (Require the `latexsym` package)
`\bot`	$\bot$
`\top`	$\top$
`\angle`	$\angle$
`\surd`	$\surd$
`\diamondsuit`	$\diamondsuit$
`\heartsuit`	$\heartsuit$
`\clubsuit`	$\clubsuit$
`\spadesuit`	$\spadesuit$
`\neg` `\lnot`	$\neg$
`\flat`	$\flat$
`\natural`	$\natural$
`\sharp`	$\sharp$

Non-Mathematical Symbols

`\dag`	†
`\ddag`	‡
`\S`	§
`\P`	¶
`\copyright`	©
`\pounds`	£
`\textregistered`	®
`\%`	%

AMS Delimiters

`\ulcorner`	⌜
`\urcorner`	⌝
`\llcorner`	⌞
`\lrcorner`	⌟
`\lvert`	|
`\rvert`	|
`\lVert`	‖
`\rVert`	‖

AMS Greek and Hebrew

`\digamma`	$\digamma$
`\varkappa`	$\varkappa$
`\beth`	$\beth$
`\gimel`	$\gimel$
`\daleth`	$\daleth$

Math Alphabets

Command	Example	Required Package
`\mathrm{ABCDEabcde1234}`	$\mathrm{ABCDEabcde1234}$	
`\mathit{ABCDEabcde1234}`	$\mathit{ABCDEabcde1234}$	
`\mathnormal{ABCDEabcde1234}`	$\mathnormal{ABCDEabcde1234}$	
`\mathcal{ABCDEabcde1234}`	$\mathcal{ABCDE}\dashv\lfloor\rfloor\lceil\rceil\infty\in\ni\triangle$	
`\mathscr{ABCDEabcde1234}`	$\mathscr{ABCDE}$	`mathrsfs`
`\mathfrak{ABCDEabcde1234}`	$\mathfrak{ABCDEabcde1234}$	`amsfonts` or `amssymb`
`\mathbb{ABCDEabcde1234}`	$\mathbb{ABCDE}\Finv\nvDash\nvdash\trianglerighteq$	`amsfonts` or `amssymb`

AMS Binary Operators

`\dotplus`	$\dotplus$
`\centerdot`	$\centerdot$
`\ltimes`	$\ltimes$
`\rtimes`	$\rtimes$
`\divideontimes`	$\divideontimes$
`\doublecup`	$\Cup$
`\doublecap`	$\Cap$
`\smallsetminus`	$\smallsetminus$
`\veebar`	$\veebar$
`\barwedge`	$\barwedge$
`\doublebarwedge`	$\doublebarwedge$
`\boxplus`	$\boxplus$
`\boxminus`	$\boxminus$
`\circleddash`	$\circleddash$
`\boxtimes`	$\boxtimes$
`\boxdot`	$\boxdot$
`\circledcirc`	$\circledcirc$
`\intercal`	$\intercal$
`\circledast`	$\circledast$
`\rightthreetimes`	$\rightthreetimes$
`\curlyvee`	$\curlyvee$
`\curlywedge`	$\curlywedge$

`\leftthreetimes`	⋋

AMS Binary Relations

`\lessdot`	$\lessdot$
`\gtrdot`	$\gtrdot$
`\doteqdot`	$\doteqdot$
`\leqslant`	$\leqslant$
`\geqslant`	$\geqslant$
`\risingdotseq`	$\risingdotseq$
`\eqslantless`	$\eqslantless$
`\eqslantgtr`	$\eqslantgtr$
`\fallingdotseq`	$\fallingdotseq$
`\leqq`	$\leqq$
`\geqq`	$\geqq$
`\eqcirc`	$\eqcirc$
`\lll` `\llless`	$\lll$
`\ggg`	$\ggg$
`\circeq`	$\circeq$
`\lesssim`	$\lesssim$
`\gtrsim`	$\gtrsim$
`\triangleq`	$\triangleq$
`\lessapprox`	$\lessapprox$
`\gtrapprox`	$\gtrapprox$
`\bumpeq`	$\bumpeq$
`\lessgtr`	$\lessgtr$

`\gtrless`	$\gtrless$
`\Bumpeq`	$\Bumpeq$
`\lesseqgtr`	$\lesseqgtr$
`\gtreqless`	$\gtreqless$
`\thicksim`	$\thicksim$
`\lesseqqgtr`	$\lesseqqgtr$
`\gtreqqless`	$\gtreqqless$
`\thickapprox`	$\thickapprox$
`\preccurlyeq`	$\preccurlyeq$
`\succcurlyeq`	$\succcurlyeq$
`\approxeq`	$\approxeq$
`\curlyeqprec`	$\curlyeqprec$
`\curlyeqsucc`	$\curlyeqsucc$
`\backsim`	$\backsim$
`\precsim`	$\precsim$
`\succsim`	$\succsim$
`\backsimeq`	$\backsimeq$
`\precapprox`	$\precapprox$
`\succapprox`	$\succapprox$
`\vDash`	$\vDash$
`\subseteqq`	$\subseteqq$
`\supseteqq`	$\supseteqq$
`\Vdash`	$\Vdash$

`\shortparallel`	∥
`\Supset`	⋑
`\Vvdash`	⊪
`\blacktriangleleft`	◀
`\sqsupset`	⊐
`\backepsilon`	∍
`\vartriangleright`	▷
`\because`	∵
`\varpropto`	∝
`\blacktriangleright`	▶
`\Subset`	⋐
`\between`	≬
`\trianglerighteq`	⊵
`\smallfrown`	⌢
`\pitchfork`	⋔
`\vartriangleleft`	◁
`\shortmid`	∣
`\smallsmile`	⌣
`\trianglelefteq`	⊴
`\therefore`	∴
`\sqsubset`	⊏

Notes

- Based on The not so Short Introduction to LaTeX.

You can modify and improve this cheat sheet here