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`	$\sqsubset$ (Require the `latexsym` package)

`\sqsupset`	$\sqsupset$ (Require the `latexsym` package)
`\Join`	$\Join$ (Require the `latexsym` package)
`\sqsubseteq`	$\sqsubseteq$
`\sqsupseteq`	$\sqsupseteq$
`\bowtie`	$\bowtie$
`\in`	$\in$
`\ni` `\owns`	$\ni$
`\propto`	$\propto$
`\vdash`	$\vdash$
`\dashv`	$\dashv$
`\models`	$\models$
`\mid`	$\mid$
`\parallel`	$\parallel$
`\perp`	$\perp$
`\smile`	$\smile$
`\frown`	$\frown$
`\asymp`	$\asymp$
`:`	$\vdots$
`\notin`	$\notin$
`\neq` `\ne`	$\neq$

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`	$\triangle$
`\bigtriangledown`	$\triangledown$
`\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`	$\leftarrow$
`\gets`	
`\longleftarrow`	$\longleftarrow$
`\rightarrow`	$\rightarrow$
`\to`	
`\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`	↑
`\downarrow`	↓
`\updownarrow`	↕
`\Uparrow`	⇑
`\Downarrow`	⇓
`\Updownarrow`	⇕
`\nearrow`	↗
`\searrow`	↘
`\swarrow`	↙
`\nwarrow`	↖
`\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`	• • •
`\cdots`	⋯
`\vdots`	⋮
`\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`	◇	(Require the `latexsym` package)
`\bot`	⊥	
`\top`	⊤	
`\angle`	∠	
`\surd`	√	
`\diamondsuit`	♢	
`\heartsuit`	♡	
`\clubsuit`	♣	
`\spadesuit`	♠	
`\neg` `\lnot`	¬	
`\flat`	♭	
`\natural`	♮	
`\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	ϝ
\varkappa	ϰ
\beth	ℶ
\gimel	ℷ
\daleth	ℸ

Math Alphabets

Command	Example	Required Package
`\mathrm{ABCDEabcde1234}`	ABCDEabcde1234	
`\mathit{ABCDEabcde1234}`	*ABCDEabcde1234*	
`\mathnormal{ABCDEabcde1234}`	*ABCDEabcde*1234	
`\mathcal{ABCDEabcde1234}`	$\mathcal{ABCDE}\dashv\sqcup\sqcap\infty\in\ni\triangle$	
`\mathscr{ABCDEabcde1234}`	$\mathscr{ABCDE}$	`mathrsfs`
`\mathfrak{ABCDEabcde1234}`	$\mathfrak{ABCDEabcde}1234$	`amsfonts` or `amssymb`
`\mathbb{ABCDEabcde1234}`	$\mathbb{ABCDE}$ⱻℲℲℲℲ	`amsfonts` or `amssymb`

AMS Binary Operators

\dotplus	$\dotplus$
\centerdot	$\cdot$
\ltimes	$\ltimes$
\rtimes	$\rtimes$
\divideontimes	$\divideontimes$
\doublecup	$\doublecup$
\doublecap	$\doublecap$
\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	$\leftthreetimes$

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	≎
\lesseqgtr	⋚
\gtreqless	⋛
\thicksim	∼
\lesseqqgtr	⪋
\gtreqqless	⪌
\thickapprox	≈
\preccurlyeq	≼
\succcurlyeq	≽
\approxeq	≊
\curlyeqprec	⋞
\curlyeqsucc	⋟
\backsim	∽
\precsim	≾
\succsim	≿
\backsimeq	⋍
\precapprox	⪷
\succapprox	⪸
\vDash	⊨
\subseteqq	⊆
\supseteqq	⊇
\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](#)