LaTeX Math Symbols

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Math Mode Accents	
\acute{a}	\acute{a}
\bar{a}	$ar{a}$
\breve{a}	$reve{a}$
\check{a}	${a}$
\ddot{a}	\ddot{a}
\dot{a}	\dot{a}
\grave{a}	à
\hat{a}	\hat{a}
\mathring{a}	$ \mathring{a} $
\tilde{a}	\widetilde{a}
\vec{a}	$ec{a}$
\widehat{AAA}	$\widehat{A}\widehat{A}\widehat{A}$
\widetilde{AAA}	\widetilde{AAA}

Greek Letters	
\alpha	$ \alpha $
\beta	eta
\gamma	γ
\delta	δ
\epsilon	ϵ
\varepsilon	arepsilon
\zeta	ζ
\eta	$\mid \eta \mid$
\Gamma	Γ
\Delta	Δ
\Theta	Θ
\theta	heta
\vartheta	artheta
\iota	$oldsymbol{\iota}$
\kappa	κ
∖lambda	λ

\mu	$\mid \mu \mid$
\nu	u
\xi	ξ
\Lambda	Λ
\Xi	Ξ
\Pi	Π
0	O
\pi	π
\varpi	arpi
\rho	ho
\varrho	Q
\sigma	σ
\varsigma	ς
\tau	au
\Sigma	Σ
\Upsilon	Υ

\Phi	$ \Phi $
\upsilon	$oldsymbol{arphi}$
\phi	ϕ
\varphi	arphi
\chi	χ
\psi	ψ
\omega	ω
\Psi	Ψ
\Omega	Ω

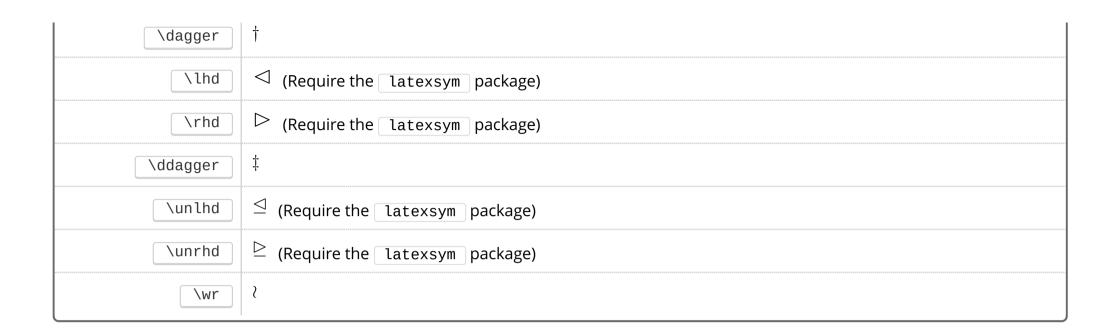
Binary Relations		
<		
>	>	
=	_	
\leq \le	\leq	
\geq \ge	\geq	
\equiv		
\11	\ll	
\gg	≫	
\doteq	$\dot{=}$	
\prec	\prec	
\succ	>	
\sim	\sim	
\preceq	\preceq	
\succeq	≽	

\simeq	\simeq
\subset	
\supset	
\approx	pprox
\subseteq	\subseteq
\supseteq	⊇
\cong	\cong
\sqsubset	(Require the latexsym package)
\sqsupset	☐ (Require the latexsym package)
\Join	(Require the latexsym package)
\sqsubseteq	
\sqsupseteq	
\bowtie	\bowtie
\in	\in
\ni \owns	\ni
\propto	\propto

\vdash	
\dashv	\dashv
\models	
\mid	
\parallel	
\perp	
\smile	
\frown	
\asymp	\asymp
:	•
\notin	∉
\neq \ne	\neq

Binary Operators	
+	+
-	
\pm	\pm
\mp	Ŧ
\triangleleft	\triangleleft
\cdot	•
\div	•
\triangleright	
\times	×
\setminus	
\star	*
\cup	U
\cap	Π
\ast	*
\sqcup	
\sqcap	П

\circ	О
\vee \lor	V
\wedge \land	
\bullet	
\oplus	\oplus
\ominus	$oxed{\Theta}$
\diamond	♦
\odot	\odot
\oslash	
\uplus	\forall
\otimes	\otimes
\bigcirc	0
\amalg	Π
\bigtriangleup	
\bigtriangledown	lacksquare



BIG Operators	
\sum	\sum
\bigcup	U
\bigvee	V
\prod	Π
\bigcap	Π
\bigwedge	\wedge
\coprod	Ц
\bigsqcup	
\biguplus	\forall
\int	\int
\oint	∮
\bigodot	\odot
\bigoplus	\oplus
\bigotimes	\otimes

Arrows		
\leftarrow \gets	\leftarrow	
∖longleftarrow		
\rightarrow \to	\rightarrow	
\longrightarrow	\longrightarrow	
\leftrightarrow	\leftrightarrow	
\longleftrightarrow	\leftarrow	
\Leftarrow	(
\Longleftarrow		
\Rightarrow	\Rightarrow	
\Longrightarrow	\Longrightarrow	
\Leftrightarrow	\Leftrightarrow	
\Longleftrightarrow	\iff	
\mapsto	\vdash	
\longmapsto	├	

\hookleftarrow	\leftarrow
\hookrightarrow	\hookrightarrow
∖leftharpoonup	<u>/</u>
\rightharpoonup	
\leftharpoondown	√
\rightharpoondown	7
\rightleftharpoons	
\iff	(bigger spaces)
\uparrow	\uparrow
\downarrow	↓
\updownarrow	‡
\Uparrow	\uparrow
\Downarrow	\downarrow
\Updownarrow	\$
\nearrow	7
\searrow	\searrow
\swarrow	∠

\nwarrow	
\leadsto	

Arrows as Accents		
\overrightarrow{AB}	\overrightarrow{AB}	
\underrightarrow{AB}	$\stackrel{AB}{ ightarrow}$	
\overleftarrow{AB}	\overleftarrow{AB}	
\underleftarrow{AB}	$ \stackrel{AB}{\leftarrow} $	
\overleftrightarrow{AB}	\overleftarrow{AB}	
\underleftrightarrow{AB}	$ \stackrel{AB}{\Longrightarrow} $	

Delimiters		
	(
)		
\uparrow	\uparrow	
\lbrack		
\rbrack]	
\downarrow	\downarrow	
\lbrace \{	{	
\rbrace \}	}	
\updownarrow	‡	
\langle	<	
\rangle	>	
\Uparrow	\uparrow	
\vert		

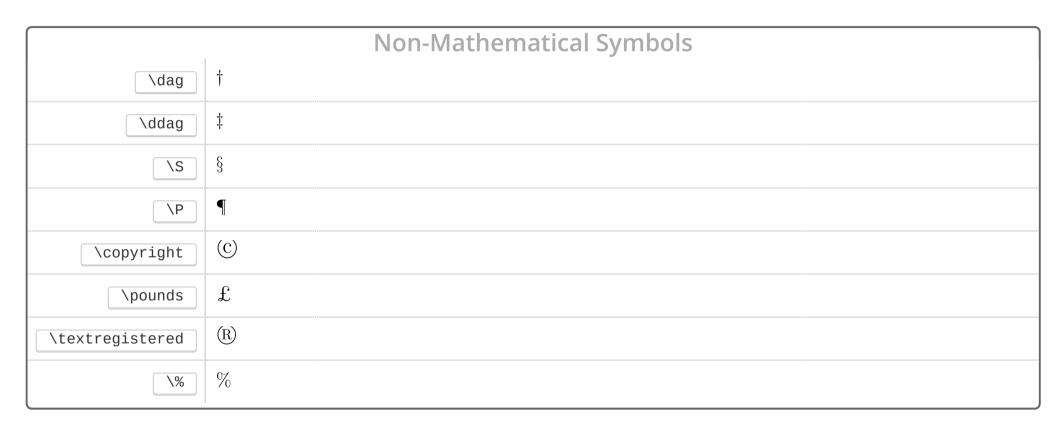
\Vert	
\Downarrow	\downarrow
/	
\backslash	\
\Updownarrow	\uparrow
\lfloor	
\rfloor	
\rceil	7
\lceil	

Large Delimiters		
\lgroup		
\rgroup)	
∖lmoustache	ſ	
\arrowvert		
\Arrowvert		
\bracevert		
\rmoustache	1	

Miscellaneous Symbols		
\dots	• • •	
\cdots	•••	
\vdots	:	
\ddots	$\cdot \cdot .$	
\hbar	\hbar	
\imath	\imath	
∖jmath	\mathcal{J}	
\ell	ℓ	
\Re	\Re	
\Im	\Im	
\aleph	×	
\wp	\wp	
\forall	\forall	
\exists	3	
\mho	σ (Require the <code>latexsym</code> package)	
\partial	∂	

'	,
\prime	'
\emptyset	\emptyset
\infty	∞
\nabla	abla
\triangle	\triangle
\Box	(Require the latexsym package)
\Diamond	⟨ (Require the latexsym package)
\bot	
\top	T
\angle	
\surd	\checkmark
\diamondsuit	\Diamond
\heartsuit	\Diamond
\clubsuit	*
\spadesuit	^

\neg \lnot	
\flat	D
\natural	4
\sharp	#



AMS Delimiters		
\ulcorner		
\urcorner		
\llcorner	L	
\lrcorner		
\lvert		
\rvert		
\lVert		
\rVert		

AMS Greek and Hebrew		
\digamma	F	
\varkappa	\varkappa	
\beth	コ	
\gimel	Į	
\daleth		

Math Alphabets		
Command	Example	Required Package
\mathrm{ABCDEabcde1234}	ABCDEabcde1234	
\mathit{ABCDEabcde1234}	ABCDEabcde 1234	
\mathnormal{ABCDEabcde1234}	ABCDEabcde1234	
\mathcal{ABCDEabcde1234}	$\mathcal{ABCDE} \dashv \Box \Box \infty \in \ni \triangle$	
\mathscr{ABCDEabcde1234}	ABC DE	mathrsfs
\mathfrak{ABCDEabcde1234}	ABCDEabcde1234	amsfonts or amssymb
\mathbb{ABCDEabcde1234}	ABCDEƏKKKÇ	amsfonts or amssymb

	AMS Binary Operators
\dotplus	$ \dot{+}$
\centerdot	•
\\ltimes	K
\rtimes	×
\divideontimes	*
\doublecup	U
\doublecap	
\smallsetminus	
\veebar	ullet
\barwedge	$\overline{\wedge}$
\doublebarwedge	$\overline{\lambda}$
\boxplus	
\boxminus	
\circleddash	Θ
\boxtimes	
\boxdot	

\circledcirc	②
\intercal	T
\circledast	\circledast
\rightthreetimes	\prec
\curlyvee	Υ
\curlywedge	人
\leftthreetimes	\rightarrow

AMS Binary Relations		
\lessdot	\lessdot	
\gtrdot	>	
\doteqdot	÷	
\leqslant	\leq	
\geqslant	>	
\risingdotseq	, =	
\eqslantless		
\eqslantgtr	>	
\fallingdotseq	=	
\leqq	\leq	
\geqq	\geq	
\eqcirc	<u> </u>	
\lll \llless	((
\ggg	>>>>	
\circeq	<u>•</u>	

\lesssim	$ \lesssim$
\gtrsim	\gtrsim
\triangleq	\triangleq
\lessapprox	≨
\gtrapprox	\gtrapprox
\bumpeq	<u>수</u>
\lessgtr	$ $ \leq
\gtrless	$ \ge $
\Bumpeq	☆
\lesseqgtr	<u>{</u>
\gtreqless	<u>≥</u>
\thicksim	\sim
\lesseqqgtr	\leq
\gtreqqless	\geq
\thickapprox	pprox
\preccurlyeq	\prec
\succcurlyeq	≽

\approxeq	\approxeq
\curlyeqprec	\dashv
\curlyeqsucc	>
\backsim	✓
\precsim	≾
\succsim	\succsim
\backsimeq	<u>S</u>
\precapprox	$\stackrel{\sim}{lpha}$
\succapprox	$\star \approx$
\vDash	=
\subseteqq	\subseteq
\supseteqq	\supseteq
\Vdash	
\shortparallel	II
\Supset	∋
\Vvdash	

\blacktriangleleft	
\sqsupset	
\backepsilon	Э
\vartriangleright	
\because	•
\varpropto	α
\blacktriangleright	
\Subset	
\between	Ŏ.
\trianglerighteq	
\smallfrown	\sim
\pitchfork	ή
\vartriangleleft	\triangleleft
\shortmid	
\smallsmile	
\trianglelefteq	\leq
\therefore	•••

L		
	\sqsubset	
l		

Notes

• Based on <u>The not so Short Introduction to LaTeX</u>.

You can modify and improve this cheat sheet <u>here</u>