List of LaTeX mathematical symbols

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All the predefined mathematical symbols from the TEX package are listed below. More symbols are available from extra packages.

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Greek letters

Greek letters

Symbol	IAT _E X	Symbol	LATEX
$oldsymbol{A}$ and $oldsymbol{lpha}$	\Alpha and \alpha	N and $oldsymbol{ u}$	\Nu and \nu
${f B}$ and ${m eta}$	and $oldsymbol{eta}$ \Beta and \beta		\Xi and \xi
$oldsymbol{\Gamma}$ and $oldsymbol{\gamma}$	and γ \Gamma and \gamma		\Omicron and \omicron
$oldsymbol{\Delta}$ and $oldsymbol{\delta}$ \Delta and \delta		Π,π and ϖ	\Pi, \pi and \varpi
$\mathbf{E}, \boldsymbol{\epsilon}$ and $\boldsymbol{\epsilon}$	\Epsilon, \epsilon and \varepsilon	$\mathbf{P}, \boldsymbol{ ho}$ and \boldsymbol{arrho}	\Rho, \rho and \varrho
${f Z}$ and ${m \zeta}$	\Zeta and \zeta	Σ , σ and ς	\Sigma, \sigma and \varsigm
${f H}$ and ${m \eta}$	$oxed{I}$ and $oldsymbol{\eta}$ \Eta and \eta		\Tau and \tau
$oldsymbol{artheta}, oldsymbol{ heta}$ and $oldsymbol{artheta}$ \Theta, \theta and \vartheta		$oldsymbol{\Upsilon}$ and $oldsymbol{v}$	\Upsilon and \upsilon
${f I}$ and ${m \iota}$	\Iota and \iota	$oldsymbol{\Phi},oldsymbol{\phi},$ and $oldsymbol{arphi}$	\Phi, \phi and \varphi
\mathbf{K} , $\boldsymbol{\kappa}$ and $\boldsymbol{\varkappa}$	\Kappa, \kappa and \varkappa	${f X}$ and ${m \chi}$	\Chi and \chi
$oldsymbol{\Lambda}$ and $oldsymbol{\lambda}$	\Lambda and \lambda	$oldsymbol{\Psi}$ and $oldsymbol{\psi}$	\Psi and \psi
M and μ	\Mu and \mu	$oldsymbol{\Omega}$ and $oldsymbol{\omega}$	\Omega and \omega

Archaic Greek letters

Symbol	LATEX
F	\Digamma
F	\digamma
F	\digamma

Unary operators

Unary operators

Symbol	LATEX	Comment	Symbol	LATEX	Comment	Symbol	LATEX	Comment	Symbol	LATEX	Comment
+	+		_	-	negation	!	!	factorial	#	\#	primorial
			7	\neg	not						

Relation operators

Relation operators

Symbol	IATEX	Comment	Symbol	IATEX	Comment
<	<	is less than	>	>	is greater than
≮	\nless	is not less than	*	\ngtr	is not greater than
≤	\leq	is less than or equal to	≥	\geq	is greater than or equal to
€	\leqslant	is less than or equal to	≥	\geqslant	is greater than or equal to
≰	\nleq	is neither less than nor equal to	≱	\ngeq	is neither greater than nor equal to
≰	\nleqslant	is neither less than nor equal to	*	\ngeqslant	is neither greater than nor equal to
~	\prec	precedes	>	\succ	succeeds
*	\nprec	doesn't precede	*	\nsucc	doesn't succeed
≾	\preceq	precedes or equals	≥	\succeq	succeeds or equals
≰	\npreceq	neither precedes nor equals	⊭	\nsucceq	neither succeeds nor equals
«	\11		>	\gg	
«	\111		>>>	\ggg	
C	\subset	is a proper subset of	Э	\supset	is a proper superset of
¢	\not\subset	is not a proper subset of	⊅	\not\supset	is not a proper superset of
⊆	\subseteq	is a subset of	⊇	\supseteq	is a superset of
⊈	\nsubseteq	is not a subset of	⊉	\nsupseteq	is not a superset of
Г	\sqsubset			\sqsupset	
⊑	\sqsubseteq		⊒	\sqsupseteq	

Symbol	LATEX	Comment
=	=	is equal to
÷	\doteq	
=	\equiv	is equivalent to
≈	\approx	is approximately
≅	\cong	is congruent to
~	\simeq	is similar or equal to
~	\sim	is similar to
œ	\propto	is proportional to
≠ or ≠	\neq or \ne	is not equal to

Symbol	LATEX	Comment	Symbol	LATEX	Comment
	\parallel	is parallel with	#	\nparallel	is not parallel with
×	\asymp	is asymptotic to	M	\bowtie	
-	\vdash		-	\dashv	
€	\in	is member of	€	\ni	owns, has member
$\overline{}$	\smile		_	\frown	
F	\models	models	∉	\notin	is not member of
Т	\perp	is perpendicular with	1	\mid	divides

Binary operators

Binary operators

Symbol	LATEX	Comment	Symbol	LATEX	Comment	Symbol	LAT _E X	Comment	Symbol	LATEX	Comment
±	\pm	plus or minus	n	\cap	set intersection	♦	\diamond		⊕	\oplus	
Ŧ	\mp	minus or plus	U	\cup	set union	Δ	\bigtriangleup		θ	\ominus	
×	\times	multiplied by	₩	\uplus	multiset addition	∇	\bigtriangledown		8	\otimes	
÷	\div	divided by	П	\sqcap		۵	\triangleleft		0	\oslash	
*	\ast	asterisk	Ц	\sqcup		D	\triangleright		0	\odot	
*	\star		٧	\vee		0	\bigcirc		0	\circ	
t	\dagger		۸	\wedge		•	\bullet		١	\setminus	set difference
‡	\ddagger			\cdot		2	\wr		п	\amalg	

Negated binary relations

Negated binary operators

Symbol	LAT _E X	Comment	Symbol	LATEX	Comment
≠ or ≠	\neq or \ne	is not equal to	∉	\notin	is not member of
*	\nless	is not less than	*	\ngtr	is not greater than
≰	\nleq	is not less than or equal to	≱	\ngeq	is not greater than or equal to
≰	\nleqslant		¥	\ngeqslant	
≨	\nleqq		≱	\ngeqq	
\$	\lneq		≥	\gneq	
≨	\lneqq		≩	\gneqq	
≨	\lvertneqq		≩	\gvertneqq	
⋦	\lnsim		2	\gnsim	
≨	\lnapprox		≩	\gnapprox	
*	\nprec	does not precede	*	\nsucc	does not succeed
≰	\npreceq	neither precedes nor equals	¥	\nsucceq	neither succedes nor equals
≱	\precneqq		¥	\succneqq	
⋨	\precnsim		⋩	\succnsim	
 ≉	\precnapprox		≿æ	\succnapprox	
n¢	\nsim	is not similar to	≇	\ncong	is not congruent to
ł	\nshortmid		н	\nshortparallel	
ł	\nmid		#	\nparallel	is not parallel with
۲	\nvdash		¥	\nvDash	
¥	\nVdash		¥	\nVDash	
⋪	\ntriangleleft		⋫	\ntriangleright	
⊉	\ntrianglelefteq		⊭	\ntrianglerighteq	
⊈	\nsubseteq		⊉	\nsupseteq	
⊈	\nsubseteqq		⊉	\nsupseteqq	
⊊	\subsetneq		⊋	\supsetneq	
⊊	\varsubsetneq		⊋	\varsupsetneq	
⊊	\subsetneqq		⊋	\supsetneqq	
≨	\varsubsetneqq		⊋	\varsupsetneqq	

Set and/or logic notation

Set notation					
Symbol	LATEX	Comment			
∅ or ∅ , and ∅	\O or \emptyset, and \varnothing	the empty set			
N	\N	set of natural numbers			