Mathematical symbols of LaTeX

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Latin letter

	Latin letter				
	\mathbb:ABC: ABCDEFGHIJKLMNOPQRSTUVWXYZ				
\mathcal:ABC: \mathcal:ABCDEFGHIJKLMNOPQRSTUVWXYZ					
\mathfrak:abc: abcdefghijtimnopqrstuvwrŋz					
	\mathrm:abcABC: abcdefghijklmnopqrstuvwxyzABCDEFGHIJKLMNOPQRSTUVWXYZ				

Greek and Hebrew letters

α \alpha	β \beta	$\gamma \setminus gamma$	δ \delta	ε \varepsilon	ζ\zeta	η \eta	θ \theta	λ \lambda
μ \mu	ν \nu	<i>ξ</i> \xi	Λ \Lambda	π \pi	ρ \rho	$\sigma \setminus sigma$	τ \tau	Φ \Phi
Γ\Gamma	$\Delta \setminus Delta$	v \upsilon	$\phi \setminus phi$	φ \varphi	χ \chi	ψ \psi	ω \omega	Ω \Omega
ℓ \ell	א \aleph		•				•	

Use \left \right, can be adjusted automatically.

	\left(\right) : ()		\left[\right] : []	$\left\{ \left(\right) : \left\{ \right\} \right\}$
	$\left \cdot \right $		\left \right or \lvert \rvert :	\left\ \right\ :
\left\lfloor \right\rfloor : []			\left\lceil \right\rceil : []	\left[\right) : [) and \left(\right] : (]

Set operation symbols

	\mid : ; \backslash : \	\in , \ni , \notin : ∈ , ∋ , ∉	\subset , \supset : ⊂ , ⊃		
Ì	\emptyset or \varnothing : Ø or Ø	\not\subset , \not\supset : ¢ , ≯	\subsetneqq , \supsetneqq : ⊊ , ⊋		

Binary operation symbols

\times , \cdot , \div : \times , \cdot , \div	\because , \therefore : ∵ , ∴	$\sum , \sum , \simeq , $		
\infty: ∞ ; \partial: ∂	\forall , \exists : ∀ , ∃	$<,>:<,>; \setminus leq, \setminus geq: \leq, \geq; \setminus neq: \neq$		
$\mbox{\mbox{\mbox{$\backslash$}}}$ \mapsto , $\mbox{\mbox{\mbox{$\backslash$}}}$ longmapsto : \mapsto , \longmapsto	\cap , \cup : ∩ , ∪	\ast , \star , \circ , \bullet : * , * , ∘ , •		
\land or \wedge: ^	\lor or \vee: ∨	\lnot or \neg: ¬		

Big operation symbols: use \limits

0 1	,	,			
\int\limits	, \iint\limits	, \iiint\limits	, \iiiint\limits : \int	`,∬,∭,∭	$\idotsint \lim , \coth \lim : \int \cdot \int , \oint$
	\sum\l	\liminf , \prod\	limits : ∑ , ∏		\bigcap\limits , \bigcup\limits : \cap , \cup

Arrow symbols

\leftarrow or \gets : ←	\rightarrow or \to : →	\leftrightarrow : ↔	
\longleftarrow : ←	\longrightarrow : →	$\label{longleftrightarrow} \label{longleftrightarrow} \label{longleftrightarrow} : \longleftrightarrow$	
\Leftarrow : ←	\Rightarrow : ⇒	\Leftrightarrow : ⇔	
\Longleftarrow : ←	\Longrightarrow or \implies : ⇒	\Longleftrightarrow or \iff: ←	
	vector is \overrightarrow not \vec : \overrightarrow{abc}	\overline $\{abcd\}$: \overline{abcd}	
\overbrace $\{aaaa\}$: \overbrace{aaaa}	\underbrace {aaaa}: aaaa		

Functions

runctions					
\sin : sin	\cos : cos	∖tan : tan	\csc : csc	\sec : sec	\cot : cot
\sinh : sinh	\cosh : cosh	\tanh : tanh			
\arcsin : arcsin	\arccos : arccos	\arctan: arctan			
\min : min	\max : max	\arg : arg	\det: det	\dim : dim	\hom : hom
\inf : inf	\sup : sup	\ker : ker	∖deg : deg	∖gcd : gcd	
\exp : exp	\ln: ln	\lg: lg	\log: log		