Symbols & Logical Syntax in LATEX

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Greek & Hebrew Alphabetical Letters

A, α	\Alpha, \alpha	Ι, ι	\Iota, \iota	Ρ, ρ, ρ	\Rho, \rho, \varrho	F	\digamma
B, β	\Beta, \beta	Κ, κ, μ	\Kappa, \kappa, \varkappa	Σ , σ , ς	\Sigma, \sigma, \varsigma	×	\aleph
Γ, γ	\Gamma, \gamma	Λ, λ	\Lambda, \lambda	T, τ	\Tau, \tau	⊐	\beth
$\Delta, \ \delta$	\Delta, \delta	M, μ	\Mu, \mu	Υ , v	\Upsilon, \upsilon	٦	\daleth
E, ϵ , ε	\Epsilon, \epsilon, \varepsilon	Ν, ν	\Nu, \nu	Φ, ϕ, φ	\Phi, \phi, \varphi	[ב	\gimel
Z, ζ	\Zeta, \zeta	Ξ, ξ	\Xi, \xi	Χ, χ,	\Chi, \chi		
H, η	\Eta, \eta	О, о	\Omicron, \omicron	Ψ, ψ	\Psi, \psi		
Θ , θ , ϑ	\Theta, \theta, \vartheta	Π, π, ϖ	\Pi, \pi, \varpi	Ω, ω	\Omega, \omega		

Basic Math Mode Syntax

XY	Z xyz XYZ\ xyz \mathbb{XYZ}	XYZ xyz		XYZ xyz XY3 rŋ3	<pre>\mathit{XYZ\ xyz} \mathfrak{XYZ\ xyz}</pre>	XYZ xyz	<pre>\mathbf{XYZ\ xyz} \mathtt{XYZ\ xyz}</pre>
xyz xyz $abcd$ $abcd$ abc	<pre>xyz x\ y\ z a\:b\mspace{4mu}c\med a b\mspace{18mu} a\phantom(xxx}b</pre>	-	Math spacing Extended spacing 4mu ('medium') space 18mu ('quad') space Space width of 'xxx'	$ \begin{vmatrix} \sin x \cos y \\ a b c d \\ a b c d \end{vmatrix} $ $ abad $	\sin x\cos y ab\mspace{3mu}c\t a\;b\mspace{5mu}c\t a\!b\mspace{-3mu}c\	hickspace d	Operator spacing 3mu ('thin') space 5mu ('thick') space Neg. 3mu ('thin') space

Math Accents & Constructs

\hat{x}	\hat{x}	×	\check{x}	\tilde{x}	\tilde{x}	ź	\acute{x}	à	\grave{x}
\dot{x}	\dot{x}	\ddot{x}	\ddot{x}	x	\breve{x}	\bar{x}	\bar{x}	\vec{x}	\vec{x}
\widehat{xyz}	\widehat{xyz}	\widetilde{xyz}	\widetilde{xyz}	$\frac{abc}{xyz}$	\frac{abc}{xyz}	f, f'	f, f\prime	\sqrt{x}	\sqrt{x}
$\sqrt[n]{x}$	\sqrt[n]{x}	\overline{xyz}	\overline{xyz}	$\frac{xyz}{}$	\underline{xyz}	\widehat{xyz}	\overbrace{xyz}	xyz	\underbrace{xyz}
	\ arrawniah+ammarrfurra}		\ overloftermentung}			1		. •	

Binary Relations

Note that you can produce according negations by either adding the \not command as a prefix or ordinarily by preceding the commands with 'n'. For example, \not= or \neq turns = to \neq .

```
\ni or \owns
\leq or \le
                   \geq or \ge
                                                     \vdash
                                                                        \dashv
                                      \equiv
                                      \doteq
                                                     \mid
                                                                  \parallel
                   \gg
                                      \sim
                                                     \smile
\prec
                   \succ
                                                                        \frown
\preceq
                                      \simeq
\subset
                   \supset
                                      \approx
                                                     \models
                                                                        \perp
                   \supseteq
                                                     \asymp
                                      \cong
                                                                        \propto
                                                                        \forall
                   \sqsupset
                                                     \neq
                   \sqsupseteq | 🖂
       . . | , , | ' ' , | / \prime | "
                                                " or " | ! | ? ?
```

Binary Operators

+	+	-	-	V	\lor o	r \vee	^		\land or \wedge		\triangleleft	\lhd	\triangleright	\rhd	†	\dagger	‡	\ddagger
\pm	\pm	=	\mp	\oplus	\oplus	3	Θ	\0	minus		⊴	$\under unlhd$	≥	\unrhd				
×	\times		\cdot	0	\odot		0	\0	slash		•	\bullet	0	\circ				
÷	\div	\	\setminus	\otimes	\otime	es		\b	igcirc		*	\ast	*	\star				
\cup	\cup	\cap	\cap	Δ	\bigtr	riangleup	∇	\b	igtriangledo	wn	\Diamond	\diamond	₹	\wr				
\sqcup	\sqcup	П	\sqcap	◁	\trian	ngleleft	⊳	\t	riangleright		П	\aggreen	₩	\uplus				
			\sum) \s	um	∫ \in	it	\cap	\bigcap	$\mid \oplus \mid$	\t	oigoplus	V	bigvee				
			Π	[\p	rod	∮ \oi	.nt	U	\bigcup	\otimes	\t	oigotimes	\wedge	\bigwedge	•			
			I 1	\ \c	oprod	∫∫ \ii	nt	[+]	\bigoplus	\odot	\t	oigodot	11	\bigsqcup	-			

Delimiters

Note that you can produce according relatively sized symbols by preceding the commands with \left or \right. For example, \left(\frac{abc}{xyz}\right) turns $\left(\frac{abc}{xyz}\right)$ to $\left(\frac{abc}{xyz}\right)$.

(([\lbrack or [⟨ \langle [\lfloor	\ulcorner ↑	\uparrow
))] \rbrack or]	\rangle \	\lceil ¬	\urcorner ↓	\downarrow
\vert or	{ \lbrace or \{	\lceil /	/	\llcorner ↑	\Uparrow
\Vert or \	} \rbrace or \}	\lfloor \	\backslash _	\rcorner ↓	\Downarrow
		·	·		
\lgroup \rgr	roup / \lmoustacl	ne \rmoustache	\arrowvert	: \Arrowvert	\bracevert