The Greek Alphabet

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Letters		Name	Letters		Name	Letters		Name
A	α	alpha	I	ι	iota	P	ρ	rho
B	β	beta	K	κ	kappa	Σ	σ	sigma
Γ	γ	gamma	Λ	λ	lambda	T	τ	tau
Δ	δ	delta	M	μ	mu	Υ	υ	upsilon
E	ϵ	epsilon	N	ν	nu	Φ	ϕ	phi
Z	ζ	zeta	Ξ	ξ	xi	X	χ	chi
H	η	eta	O	o	omicron	Ψ	ψ	psi
Θ	θ	theta	Π	π	pi	Ω	ω	omega

Mathematical Notation

Symbol	Meaning	Example
$\Rightarrow$	if...then; implies	$\lvert x\rvert > 1 \;\Rightarrow\; x^2 > 1$
$\Leftrightarrow$	if and only if; two-way implication	$\lvert x\rvert > 1 \;\Leftrightarrow\; x^2 > 1$
iff	if and only if; two-way implication	$\lvert x\rvert > 1$ iff $x^2 > 1$
$\nRightarrow$	does not imply	$\lvert x\rvert > 1 \;\nRightarrow\; x > 1$
$\exists$	there exists	$\exists$ a number $c > 0$
$\nexists$	there does not exist	$\nexists\, x$ such that $x^2 < 0$
$\exists!$	there exists a unique	$\exists!\, x$ such that $2x - 1 = 3$
$\forall$	for every	$\forall x \geq 0$, $\sqrt{x}$ is a real number
$\equiv$	is identically equal to	$f \equiv 0 \;\Rightarrow\; f(x) = 0$ for all x
$\propto$	is proportional to	$y \propto x^2 \;\Rightarrow\; y = kx^2$ for some k
$\subseteq$	is a subset of	$\{0, 1\} \subseteq \{0, 1, 2\}$
$\in$	is an element of	$1 \in \{1, 2, 3\}$
$\notin$	is not an element of	$1 \notin \{2, 3\}$
$\cup$	union of sets	$\{0, 1\} \cup \{2, 3\} = \{0, 1, 2, 3\}$
$\cap$	intersection of sets	$\{0, 1\} \cap \{1, 2\} = \{1\}$
$\varnothing$	empty set	$\{0, 1\} \cap \{2, 3\} = \varnothing$
$\therefore$	therefore	$\therefore n$ must exist