

Some mathematical notations as researchers say

Notation	Long phrase	Colloquial phrase
$A \cup B$	the union of A and B	A union B
$A \cap B$	the intersection of A and B	A intersection B
$\int_a^b f(x)dx$	the integral from a to b of the function of x times the derivative of x	the integral from a to b of f x di x
$\frac{d}{dx}$	derivative over the derivative of x	di over di x
Δx	delta of x (or the change in x)	delta x
$\frac{\partial}{\partial x}$	partial derivative over the derivative of x	partial di over di x
$\{x\}$	the set of x	set x
$\sum_{k=0}^{\infty} c_a^k x^k$	the sum from k equal to zero to infinity of c index a to the power of k times c to the power of k	sum from k zero to infinity c index a power k times x power k
$\ x\ $	norm of x	norm x
$ x $	mod x	
$\lim_{y \rightarrow 0} (1+y)^{\frac{1}{y}} = e$	the limit of y tending towards zero of the sum of one plus y to the power of one over y equals e	limit y toward zero sum one and y powered one over y equals e
$A^T A$	A transposed multiplied by A	A transpose A

The Greek alphabet pronunciation

The letter	Eng transcription
α	alfa
β	be-tah
γ	gema
δ	delta
ε	ep-sih-lon
ζ	zei-tah
η	ay-tah
ϑ	they-tah
ι	iotah or aiota
κ	kappah
λ	lambda
μ	mu
ν	nu
ξ	ks-eye
\omicron	omicron
π	p-eye
ρ	row
σ	sig-mah
τ	tau
υ	uhp-sih-lon
φ	
χ	k-eye
ψ	s-eye
ω	omega

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