

The Greek Alphabet

All the lowercase Greek letters except omicron are in common use as mathematical symbols. Thirteen of the uppercase letters are not used because they are identical to letters in the Roman alphabet: alpha, beta, epsilon, zeta, eta, iota, kappa, mu, nu, omicron, rho, tau, and chi. The uppercase upsilon (Υ) is rare, and perhaps non-existent. This may be because it looks too much like a Roman “Y”, but lowercase rho (ρ) can be hard to distinguish from a Roman “p”, and it’s used a lot – go figure. The other ten uppercase letters are all used, some more often than others.

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

In Greek (ancient Greek, anyway) there’s a variant form of the lower-case sigma used – ς instead of σ – when it’s the last letter of a word. I don’t think it’s ever used as a mathematical symbol.