Math-Greek alphabet,
as pronouced/written/typeset by J.L.F. King

Hello. *This shows how my pamphlets* (Prof. King) *typeset the Greek letters, and how I write them on the blackboard.*

alpha	α	A	
beta	β	B	
gamma	γ	Γ	*My blackboard lowercase-gamma has a loop at the bottom.*
delta	δ	Δ	*Different from* ∇ *, nabla.* See Wikipedia Nabla.
epsilon	ε	E	*Different from* $\in$ *,* "is an element of"*, and* $\ni$ *,* "owns"*.*
zeta	ζ	Z	*My blackboard lowercase-zeta, at the bottom, curves all the way back left.*
eta	η	H	
theta	θ	Θ	*My blackboard lowercase-theta is closer to* ϑ *.*
iota	ι	I	
kappa	κ	K	
lambda	λ	Λ	
mu	μ	M	*Pronounced as* "me-you"*, slurred together —like a cat with an accent.*
nu	ν	N	*Pronounced as* "new"*. Different from Roman* v*, and from Greek upsilon* υ*.*
xi	ξ	Ξ	*I pronounce as in the 2nd syllable of* "pixie"*.*
omicron	o	O	*Different from* 0*, zero. Different from* $\varnothing$*, the empty set.*
pi	π	Π	*Diff. from the Product* $\prod$ *operator, e.g* $\prod_{n=1}^{5}\Pi(n)$*, or possibly* $\prod_{1}^{5}\Pi(n)$ *.*
rho	ρ	P	
sigma	σ	Σ	*Different from the Sum* $\sum$ *operator, e.g* $\sum_{k=1}^{5}\Sigma(k)$*, or* $\sum_{k=1}^{5}\Sigma(k)$ *.*
tau	τ	T	*Pronounced as the first syllable in* "towel"*.*
upsilon	υ	Υ	*Pronounced* "oops-salon" *—as if you're startled by a hairdresser.*
phi	φ	Φ	*I pronounce as* "fee"*. Different from* $\varnothing$*, the empty set.*
chi	χ	X	*I pronounce as the first syllable in* "kayak"*, the boat.*
psi	ψ	Ψ	*Remove the* "ti" *from* "tipsy"*; that's how I pronounce "psi".*
omega	ω	Ω	*Different from Roman* w*.*

Alignment: αA βB $\gamma\Gamma$ $\delta\Delta$ εE ζZ ηH $\theta\Theta$ ιI κK $\lambda\Lambda$ μM νN $\xi\Xi$ oO $\pi\Pi$ ρP $\sigma\Sigma$ τT $\upsilon\Upsilon$ $\varphi\Phi$ χX $\psi\Psi$ $\omega\Omega$

Standard sets. *I use* $\mathbb{Z}$ $\mathbb{Q}$ $\mathbb{R}$ $\mathbb{C}$ $\mathbb{A}$ *for the: Integers Rationals Reals Complex-numbers Algebraic-numbers.*

Special symbols. *My typeset pamphlets use different fonts* (usually boldface) *for certain constant symbols.*

No	*Yes!*	*Meaning:*
π	$\boldsymbol{\pi}$	*The ratio of circle's circumference to its diameter.*
e	e	*The base of* log*, the* (natural) *logarithm fnc. So* $\log(\mathsf{e})=1$*.*
γ	$\boldsymbol{\gamma}$	*Euler's constant:* $\boldsymbol{\gamma}=\lim_{n\to\infty}[H_n-\log(n)]$*, where* $H_n:=\sum_{k=1}^{n}1/k$*.*
λ	$\boldsymbol{\lambda}$	*The Golden Ratio,* $\boldsymbol{\lambda}=\frac{1+\sqrt{5}}{2}$*.*
τ	$\boldsymbol{\tau}$	*The number-of-divisors fnc:* $\boldsymbol{\tau}(7)=2$*.*
σ	$\boldsymbol{\sigma}$	*The sum-of-divisors fnc:* $\boldsymbol{\sigma}(7)=8$*.*
φ	$\boldsymbol{\varphi}$	*The Euler phi fnc:* $\boldsymbol{\varphi}(7)=6$*.*
μ	$\boldsymbol{\mu}$	*The Möbius fnc:* $\boldsymbol{\mu}(30)=-1$*.*
1	$\mathbf{1}$	*Kronecker fnc:* $\mathbf{1}(true)=1$*,* $\mathbf{1}(false)=0$*. The indicator fnc of a set:* $\mathbf{1}_S()$*.*
ζ	$\boldsymbol{\zeta}$	*The Riemann zeta fnc:* $\boldsymbol{\zeta}(s):=\sum_{n=1}^{\infty}1/n^s$*.*
p,q	p,q	*Generic prime numbers.*
θ,ϑ	$\boldsymbol{\vartheta}$	*The Chebyshev theta fnc:* $\boldsymbol{\vartheta}(x):=\sum_{\mathsf{p}:\ \mathsf{p}\leqslant x}\log(\mathsf{p})$*.*
L,l,ℓ	$\mathbb{L},\boldsymbol{\ell}$	*Banach spaces* $\mathbb{L}_p$ *and* $\boldsymbol{\ell}_p$*.*