GREEK LETTERS

Learn the names of Greek letters – not just the obvious ones like alpha, beta, and pi, but the more obscure psi, xi, tau, omega. [...] Learn not just to recognize these letters, but how to pronounce them. Even if you are not reading mathematics out loud, it is hard to think about formulas if $\xi, \psi, \tau, \omega, \varphi$ are all "squiggles" to you.

J. Hubbard

Below is a table of the Greek alphabetical order, with pronunciation guides for the letter names and sounds that match how mathematicians pronounce them in English. This is not always the same as Greek pronunciation, e.g., the sound of the letter β in modern Greek is v rather than b, so $\beta o\lambda \tau$ is Greek for volt, not bolt. If Greek borrows a foreign word with a b sound in it, they transcribe that sound using the two-letter combination $\mu\pi$, so barbershop is $\mu\pi\alpha\rho\mu\pi\acute{\epsilon}\rho\iota\kappa o=$ barberiko and blues (the musical style) is $\mu\pi\lambda ov\zeta$. (Compare with Greek's single letter θ where English uses two letters th. If your alphabet doesn't have a letter representing the sound you need, you have to improvise.)

Letter	Name	Sound	
$A\alpha$	$\dot{\alpha}\lambda\varphi\alpha$ (alpha)	a	
$B\beta$	$\beta \dot{\eta} \tau \alpha \text{ (beta)}$	b	
$\Gamma\gamma$	$\gamma \acute{\alpha} \mu \mu \alpha \text{ (gamma)}$	g	
$\Delta\delta$	$\delta \dot{\varepsilon} \lambda \tau \alpha \text{ (delta)}$	d	
$E\varepsilon$	$\dot{\varepsilon}\psi\iota\lambda o\nu$ (epsilon)	e	
$Z\zeta$	$\zeta \dot{\eta} \tau \alpha \text{ (zeta)}$	${f z}$	
$H\eta$	$\dot{\eta} \tau \alpha \text{ (eta)}$	ee	
$\Theta\theta$	$\theta \dot{\eta} \tau \alpha \text{ (theta)}$	h	
$I\iota$	$\iota \omega \tau \alpha \text{ (iota)}$	i	
$K\kappa$	$\kappa \acute{\alpha} \pi \pi \alpha \text{ (kappa)}$	k	
$\Lambda\lambda$	$\lambda \acute{\alpha} \mu \beta \delta \alpha \text{ (lambda)}$	1	
$M\mu$	$\mu \dot{v} \text{ (mu)}$	\mathbf{m}	
$N\nu$	$\nu \dot{v}$ (nu)	$^{\mathrm{n}}$	
$\Xi \xi$	$\xi i \text{ (xi)}$	ks	
Oo	$\delta\mu\iota\kappa\rho o\nu$ (omicron)	О	
$\Pi\pi$	πi (pi)	p	
$P\rho$	$\rho \dot{\omega} \text{ (rho)}$	\mathbf{r}	
$\Sigma \sigma$	$\sigma i \gamma \mu \alpha \text{ (sigma)}$	\mathbf{s}	
$T\tau$	$\tau \alpha \dot{v} \text{ (tau)}$	\mathbf{t}	
Υv	$\dot{\psi}\psi\iota\lambda o\nu$ (upsilon)	00	
$\Phi arphi$	$\varphi i \text{ (phi)}$	f	
$X\chi$	$\chi i \text{ (chi)}$	kh (or h)	
$\Psi \psi$	$\psi i \text{ (psi)}$	ps	
$\Omega \omega$	$\omega \mu \epsilon \gamma \alpha \text{ (omega)}$	О	

Gain familiarity with the Greek letters by figuring out how to pronounce each Greek word below. Its meaning is in the next column over. The words are in Greek alphabetical order across the rows. Some of the words are loan words from English rather than native Greek words.

Once you get used to the letters, you'll see a lot of the words in the table are really the same in Greek and English, but a few words have been included where the Greek is only a root for words in English (like Greek for "heart" and "wood.") Try hiding the English and see if you can figure out the Greek words by themselves. (Note: ω (omega) is o, not w!! For instance, $\omega \kappa \varepsilon \alpha \nu \sigma \gamma \rho \alpha \varphi i \alpha$ is not wkeanografia, but rather okeanografia = oceanography.)

Greek	Translation	Greek	Translation	Greek	Translation
αρώμα	aroma	άτομο	atom	βιβλίο	book
$etalpha\sigma\iota\kappa \acute{o}$	basic	$Bo\sigma au\omega u\eta$	Boston	γεωμετρία	geometry
$\gamma\lambda\omega\sigma\sigma\alpha$	language	Γαλλικά	French	δημοκρατία	democracy
$\delta \acute{o} u au \iota$	tooth	ενέργεια	energy	Ελληνικά	Greek
$arepsilon\gamma\dot{\omega}$	ego	ζώο	animal	ζωδιακό	zodiac
$\eta heta\iota\kappa\dot{\eta}$	ethics	ηλεκτρικό	electric	$\eta\chi\dot{\omega}$	echo
$\eta\lambda\iota o u$	helium	$\theta \varepsilon \omega \rho \dot{\eta} \mu \alpha$	theorem	θεολογία	theology
$ heta arepsilon \omega ho i lpha$	theory	ιστορία	(hi)story	$\iota\delta\acute{\epsilon}\alpha$	idea
$\kappa \alpha \rho \delta \iota \dot{\alpha}$	heart	καταστροφή	catastrophe	$\lambda \acute{\alpha} \mu \pi \alpha$	lamp
$\lambda o \gamma \iota \kappa \acute{o}$	logic	$\mu\alpha\nu i\alpha$	madness	μουσική	music
$\mu\pi i ho lpha$	beer	νεύρο	nerve	νέο	new
$ u o \sigma \tau \alpha \lambda \gamma i \alpha$	nostalgia	$Ni\kappa\eta$	sneaker goddess	ξύλο	wood
$\xi \varepsilon \nu o \varphi o \beta i \alpha$	xenophobia	οκτώ	eight	όνομα	name
$\pi \varepsilon \nu \tau \acute{\alpha} \gamma \omega \nu o$	pentagon	$\pi \rho \delta \beta \lambda \eta \mu \alpha$	problem	Πλάτων	Plato
$ ho o \kappa$	rock (music)	ρητορικό	rhetorical	$\rho\alpha\psi\omega\delta i\alpha$	rhapsody
$\sigma au \delta\mulpha$	mouth	$\sigma \varepsilon \xi$	sex	σεισμικό	seismic
$ au ho i \gamma \omega u o$	triangle	τετράγωνο	square	τραγωδία	$\operatorname{tragedy}$
$v\pi u\omega\sigma\eta$	hypnosis	υδρογόνο	hydrogen	$\varphi o \beta i \alpha$	fear
$arphi \dot{v} \lambda \lambda o$	leaf	χημεία	chemistry	χιπ-χοπ	hip-hop
$\chi o \rho \omega \delta i \alpha$	chorus	$\chi ho \omega \mu \alpha$	color	$\psi v \chi \dot{\eta}$	soul
$\psi \varepsilon \upsilon \delta \omega \nu \upsilon \mu o$	pseudonym	$\omega ho \alpha$	hour	$\Omega \rho i \omega \nu$	Orion

Uses of Greek letters in math can be found at http://en.wikipedia.org/wiki/Greek_letters_used_in_mathematics,_science,_and_engineering. For their role in finance, see http://en.wikipedia.org/wiki/Greeks_(finance).

A table showing how to write Greek letters by hand is at https://www.foundalis.com/lan/hw/grkhandw.htm.