## Toward a precise definition of limit Warm-up 0: The Greek alphabet

Several letters from the Greek alphabet are commonly used in the precise definition of limit that we are building toward. The purpose of this assignment is to give you some familiarity with the Greek alphabet so that later use of Greek letters is not distracting.

Note that the pronunciation given below is one commonly used by mathematicians.

Lower case	Upper case	Roman equivalent	Name	Pronunciation
α	A	a	alpha	AL-fuh
eta	В	b	beta	BAY-tuh
$\gamma$	Γ	g	gamma	GAM-uh
δ	$\Delta$	d	delta	DEL-tuh
$\epsilon \text{ or } \varepsilon$	E	е	epsilon	EP-sil-on
$\zeta$	Z	$\mathbf{Z}$	zeta	ZAY-tuh
$\eta$	H	ê	eta	AY-tuh
$\theta$	Θ	$^{\mathrm{th}}$	theta	THAY-tuh
l	Ι	i	iota	eye-OH-tuh
$\kappa$	K	k	kappa	KAP-uh
$\lambda$	$\Lambda$	1	lambda	LAM-duh
$\mu$	M	m	mu	MYOO
u	N	n	nu	NOO
ξ	Ξ	ks	xi	KS-EYE
0	Ο	0	omicron	OM-i-KRON
$\pi$	Π	р	pi	PIE
ho	P	r	rho	ROW
$\sigma$	$\Sigma$	S	sigma	SIG-muh
au	T	$\mathbf{t}$	tau	TAU
v	Y	u	upsilon	OOP-si-LON
$\phi \text{ or } \varphi$	$\Phi$	f	phi	FEE
$\chi$	X	$^{\mathrm{ch}}$	chi	K-EYE
$\tilde{\psi}$	$\Psi$	$\mathbf{ps}$	$\operatorname{psi}$	SIGH
ω	Ω	ô	omega	oh-MAY-guh

**Exercise:** Write out the lower case Greek alphabet. Pronounce the name of each letter aloud as you write it.