

# Appendix B

## Miscellany

### B.1 Greek Alphabet

This section teaches you the Greek alphabet, not as it is used by speakers of current or ancient Greek, but rather as it is used in scientific discourse in the USA. In the following pronunciations, “igh” denotes the vowel sound in “high” or “sigh”.

I’ve added horizontal lines to split the table into blocks. The first block resembles the Roman *a-e*. The next block is stranger to English speakers, but it’s easy to memorize because all three of the Greek letters rhyme. The next block is like the Roman *i-n*, but missing *j*. This block would continue like the Roman *o-t* (except *q*), if it weren’t for the weird interloper  $\xi$ . And finally there is a block of miscellaneous letters at the end.

Upper	Lower	Spelling	Pronunciation	Remarks
<i>A</i>	$\alpha$	alpha	al fuh	
<i>B</i>	$\beta$	beta	bay tuh	
$\Gamma$	$\gamma$	gamma	ga muh	
$\Delta$	$\delta$	delta	dell tuh	
<i>E</i>	$\epsilon, \varepsilon$	epsilon	ep si lawn	
<i>Z</i>	$\zeta$	zeta	zay tuh	
<i>H</i>	$\eta$	eta	ay tuh	
$\Theta$	$\theta$	theta	thay tuh	
<i>I</i>	$\iota$	iota	eye owe tuh, ee owe tuh	
<i>K</i>	$\kappa$	kappa	ka puh	
$\Lambda$	$\lambda$	lambda	lamb duh	
<i>M</i>	$\mu$	mu	myou	rhymes with “pew” more than “poo”
<i>N</i>	$\nu$	nu	new	rhymes with “poo” more than “pew”
$\Xi$	$\xi$	xi	zigh, ksigh, ksee	
<i>O</i>	$o$	omicron	owe mi cron	rarely used; identical to Roman <i>o</i>
$\Pi$	$\pi$	pi	pie	
<i>R</i>	$\rho$	rho	roe	
$\Sigma$	$\sigma$	sigma	sig muh	
<i>T</i>	$\tau$	tau	tow, tau	rhymes with “ow” not “owe”
$\Upsilon$	$\upsilon$	upsilon	up si lawn	rarely used; too similar to Roman <i>v</i> ?
$\Phi$	$\phi, \varphi$	phi	fee, figh	
<i>X</i>	$\chi$	chi	kigh	really “chigh”, with “ch” as in “Bach”
$\Psi$	$\psi$	psi	sigh, see, psigh, psee	
$\Omega$	$\omega$	omega	owe me guh	second syllable varies widely

It’s worth emphasizing that a speaker of current or ancient Greek may have a different view of the alphabet from the one above. For example, I’m told that  $\beta$  is actually pronounced more like “vee tuh” than “bay tuh”. And  $\pi$  is really pronounced “pee”, but we don’t do that because it would be confused with the Roman *p*. And half of the upper-case Greek letters are identical to Roman letters and hence go unused. So these are truly arbitrary symbols, employed by the scientific community without much regard for Greek culture, simply because science needs more than the 26 symbols that the Roman alphabet offers. (Presumably, these particular arbitrary symbols became prevalent because European scholars were already trained in Greek so that they could study the Christian New Testament.)

Furthermore, in actual Greek the letters make different sounds from what you might expect, when they are used in words. For example,  $\delta$  does not make a *d* sound but rather the *th* sound in “this”. Meanwhile,  $\theta$  makes the other *th* sound, as in “thistle”. (Did you realize that those sounds are different?) To denote a *d* sound, Greek uses the two-letter combination  $\nu\tau$ . Does it seem strange, that Greek doesn’t have a letter devoted to the *d* sound? Well, maybe Greek speakers find it strange that English doesn’t have letters devoted to either of the *th* sounds.

Even if you know ancient or current Greek, do not use authentic Greek pronunciations while communicating in the USA scientific community. You will not be understood.