

# The Greek Alphabet II

Letters Familiar from Math and Science

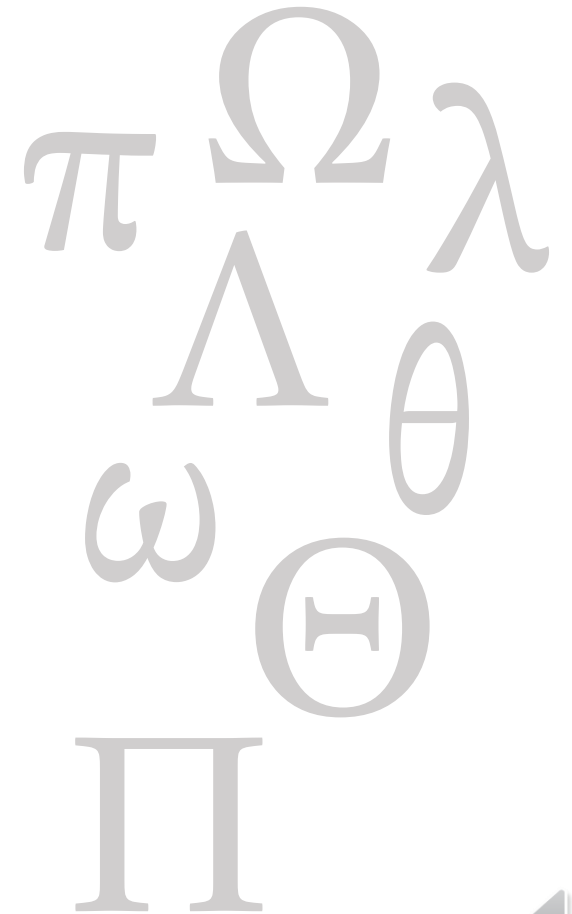
A lesson for the *Paideia* web-app

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# Greek Letters in Modern Life

- Several Greek letters don't look like their English counterpart
- But some familiar from math and science



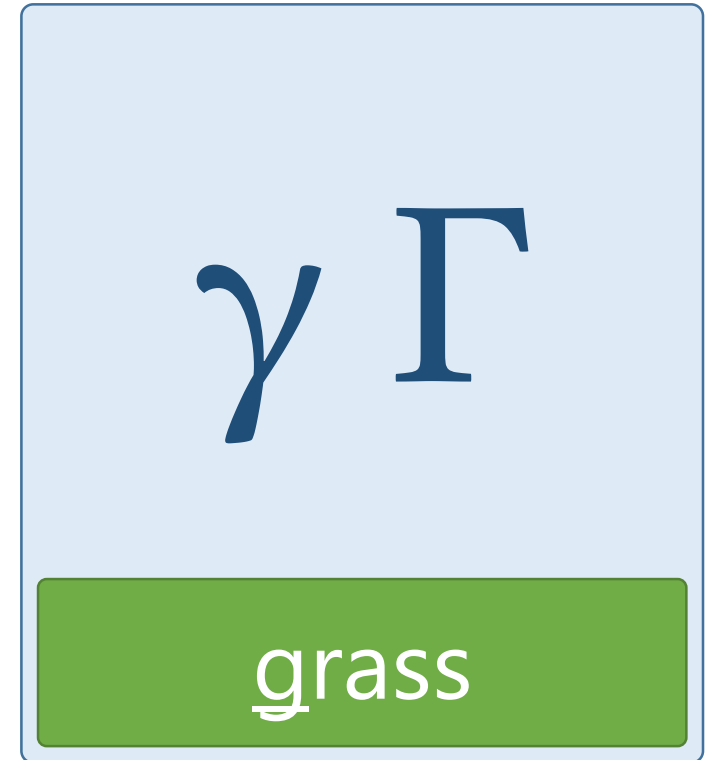
# The Alpha-bet

| Alpha    | Beta    | Gamma      | Delta    | Epsilon    | Zeta     | Eta    | Theta      | Iota    | Kappa    | Lambda    | Mu       |
|----------|---------|------------|----------|------------|----------|--------|------------|---------|----------|-----------|----------|
| $\alpha$ | $\beta$ | $\gamma$   | $\delta$ | $\epsilon$ | $\zeta$  | $\eta$ | $\theta$   | $\iota$ | $\kappa$ | $\lambda$ | $\mu$    |
| Nu       | Xi      | Omicron    | Pi       | Rho        | Sigma    | Tau    | Upsilon    | Phi     | Chi      | Psi       | Omega    |
| $\nu$    | $\xi$   | $\omicron$ | $\pi$    | $\rho$     | $\sigma$ | $\tau$ | $\upsilon$ | $\phi$  | $\chi$   | $\psi$    | $\omega$ |



# Gamma

- Used for many things in the sciences
  - including "gamma" radiation
- Shape
  - looks a bit like two blades of grass
  - Tail dips below the line
- Sound
  - Hard "g" as in "grass"
  - Never a soft "g" as in "gem"



# Double Gamma

- When two gammas appear together their sound changes
- Shape
  - looks like more blades of grass
  - so it must be spring!
- Sound
  - sounds like "ng" in "spring"
  - not like "ng" in "angel"



# Gamma-Kappa

- When γ appears with κ its sound changes again
  - pretty hard to pronounce a hard "g" and "k" together!
- Sound
  - Like "nk" in "ankle"
  - An "ng" sound followed by "k"

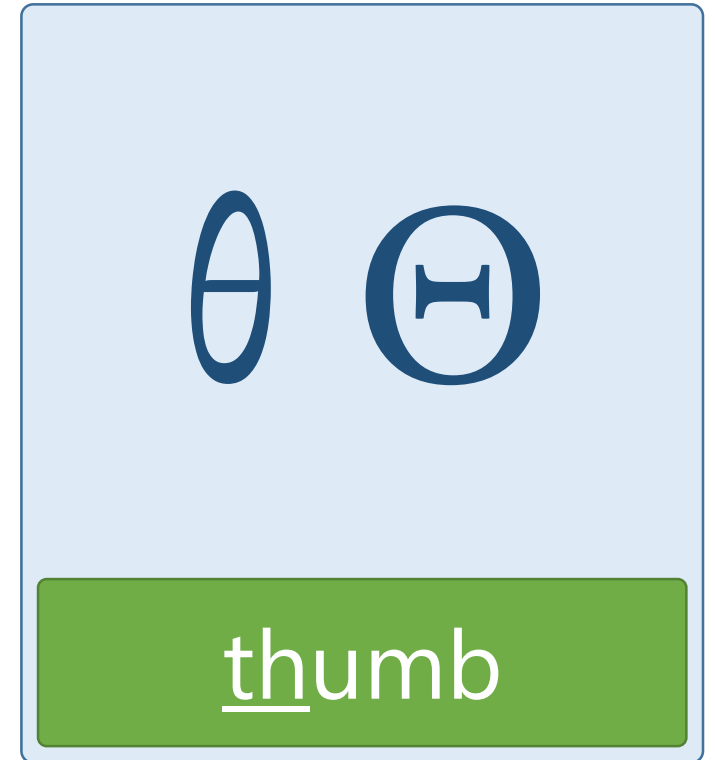
γκ

ankle



# Theta

- Used for several things in math and science
  - "Theta waves" are one frequency of brain activity
- Shape
  - Lower case looks a bit like a thumb
    - cross-bar marks the thumb nail
  - Upper case is more round, with a "floating" crossbar
- Sound
  - Sounds like "th" in "thumb"
  - Never "th" as in "the" or "though"
    - always "voiceless," never "voiced"



# Pi

- Used in math
  - The number 3.1415 (etc.)
  - Name pronounced like "pea" not "pie"
- Shape
  - Looks a bit like a path leading to the horizon
  - Upper case is taller and more square
- Sound
  - Just like the English "p"
  - Never a soft "ph"





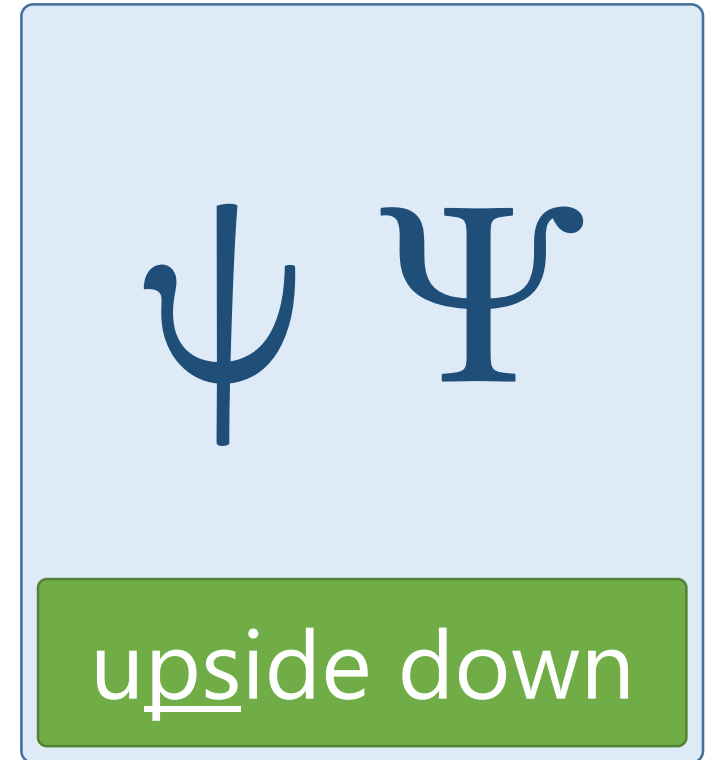
# Lambda

- used for several things in math and science
  - the half-life of radioactive materials
  - a wavelength in physics
  - an "anonymous function" in programming
- Shape
  - lower case looks a bit like a lobster
  - upper case a simple upside-down "V"
    - don't confuse it with A or  $\Delta$ !
- Sound
  - Like English "l"



# Psi

- Often used as a symbol for psychology
  - because the Greek word "psyche" starts with it: ψυχη.
- Shape
  - looks a bit like an upside-down umbrella
- Sound
  - sounds like "ps" in "upside" or "oops"
  - the "p" sound is not silent
    - *not* like "psychology"
  - a bit tricky to pronounce at first



# Omega

- Familiar from
  - Theology
    - Jesus the alpha and omega
  - Electricity
    - represents an "ohm" (unit of resistance)
- Shape
  - Lower case looks like a "w"
    - Originally shorthand for two o's
  - Looks a bit like waves on the ocean
- Sound
  - Like the long "o" in "ocean"
  - Never a short "o" as in "log"



# Transliterating English Words

- Now we can spell even more English words with Greek letters
  - making the English *sounds* with Greek letters
  - not finding Greek "equivalents" for each letter

|       |      |
|-------|------|
| thing | θιγγ |
| call  | καλ  |
| leapt | λεπτ |
| pet   | πετ  |



# Keep Learning

- You can find more about the Greek alphabet and pronunciation in the following slide decks as well as in:
  - Mounce, *Basics of Biblical Greek*
    - The Greek alphabet, Chapter 2



Mounce introduces the whole alphabet and writing system at once. We're going more slowly, so if Mounce's chapter is overwhelming at first don't worry.

