

# The Spread of Hellenistic Culture

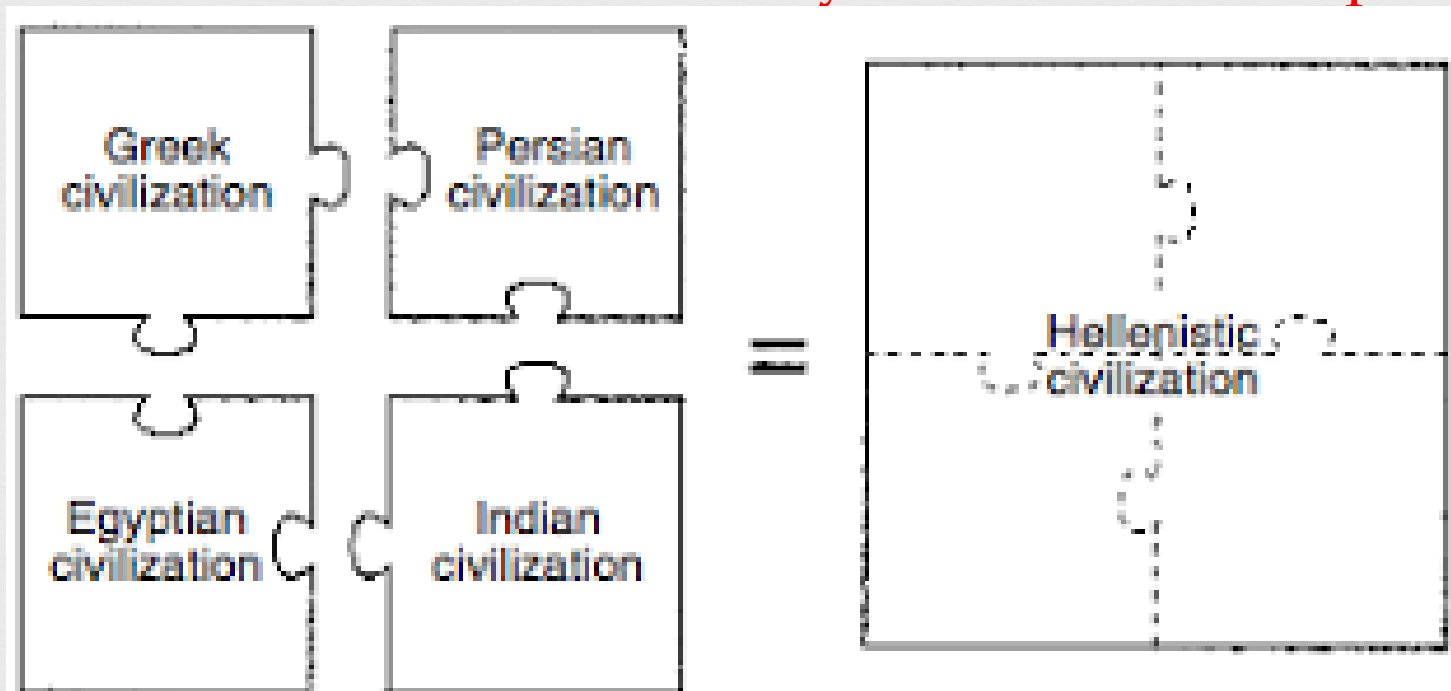


Chapter 5 Section 5

# Hellenistic

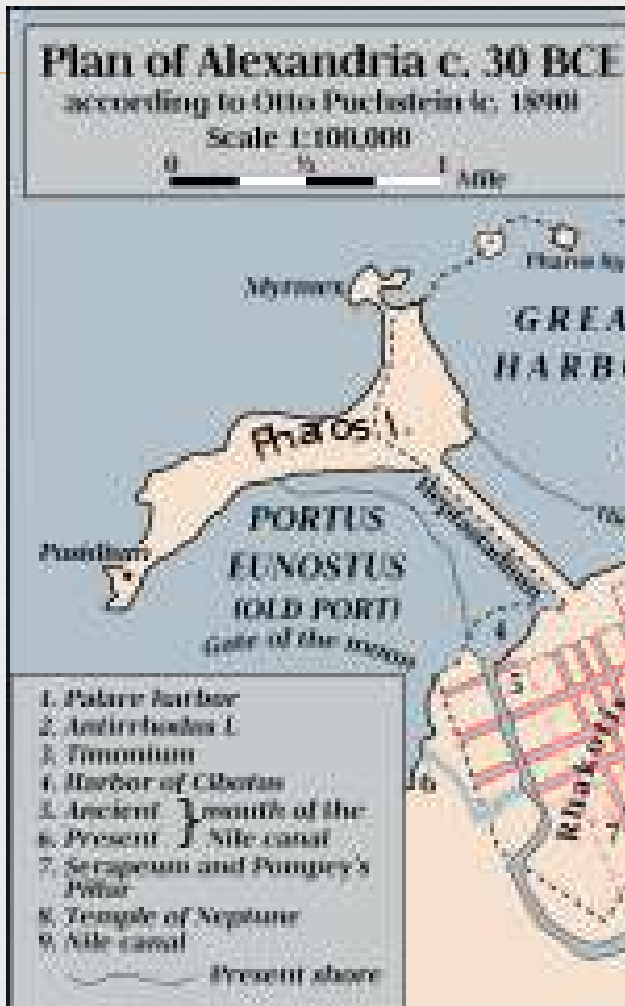


∞ A cultural blend of Greek, Egyptian, Persian, and Indian influences caused by Alexander's conquests.



Source: *Guide to the Essentials of World History*, Prentice Hall, 1999 (adapted)

# Alexandria (Egypt)



City built by **Alexander** after his conquest of Egypt in 332 B.C. in Egypt, at the mouth of the Nile River. **Became a center of Hellenistic Culture and learning.**

Known for its **Lighthouse** “wonder” and its **Library** – a compiling of all the known knowledge of the Greek World.

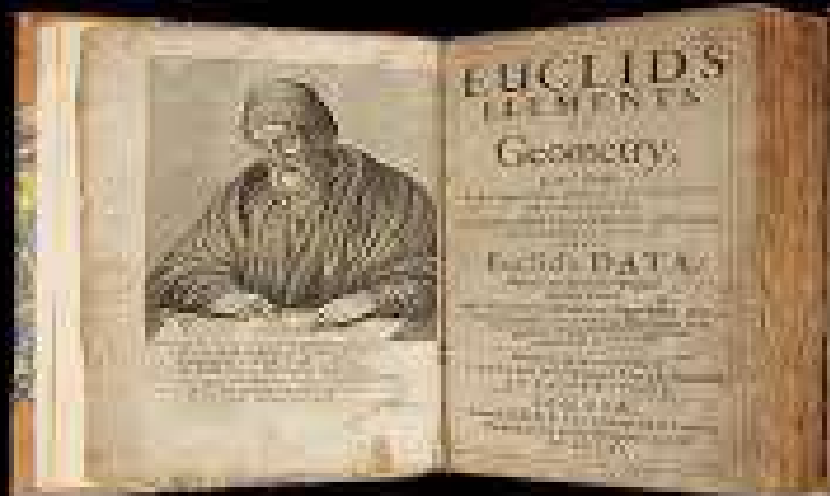


# Euclid



- Wrote a **geometry** text (*Elements*) that **still serves** as the **basic math** behind Geometry **today**.

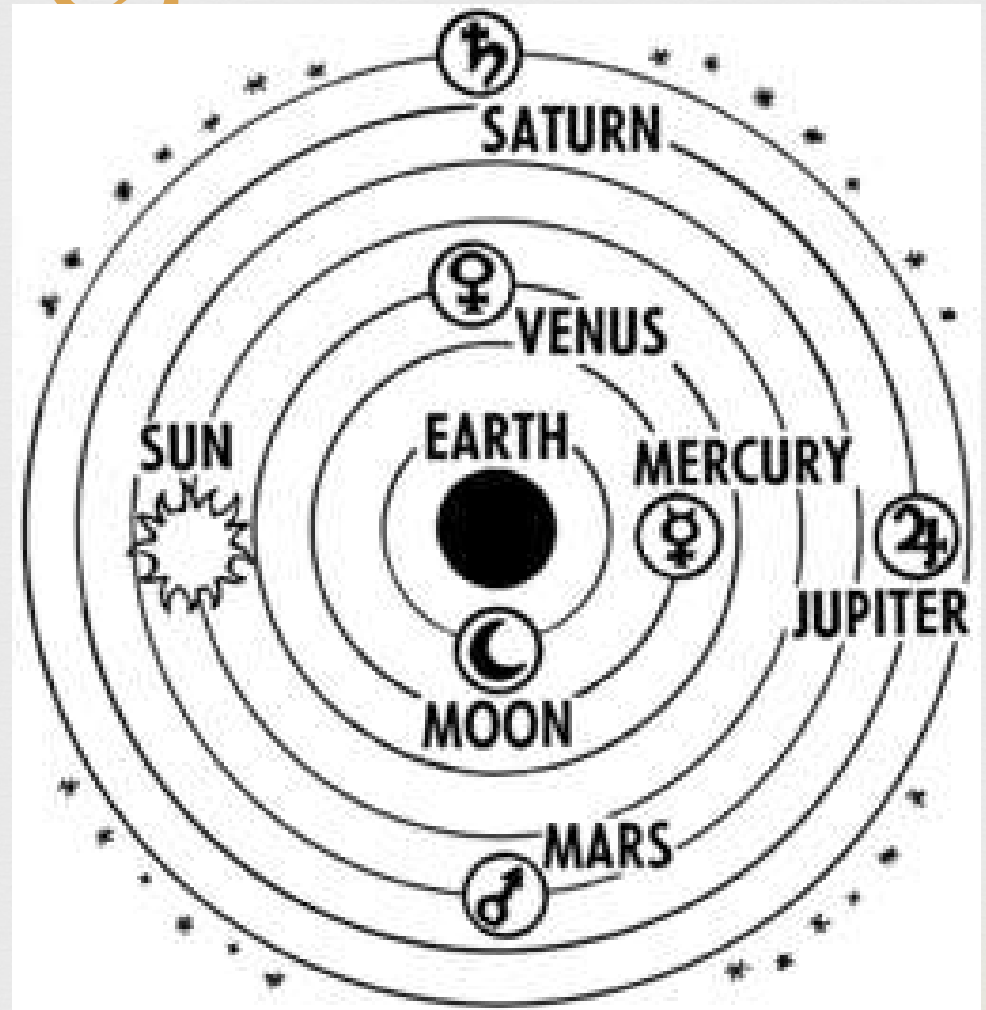
Euclid is best known for his book *The Elements* which logically and coherently puts together the framework for geometry.



# Add: Ptolemy



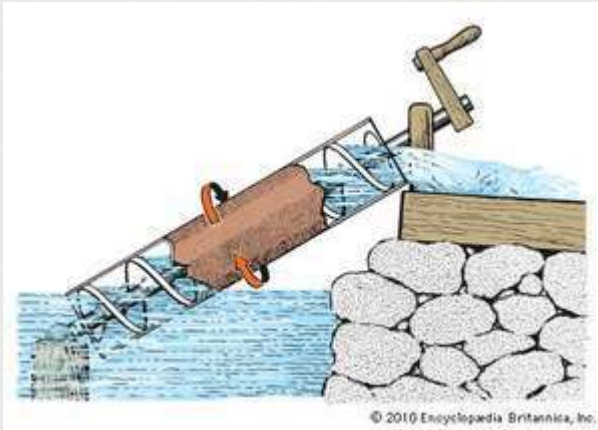
☞ **Model of solar system** where earth is in center (the **Geocentric model**) - believed to be the “correct” theory and adopted by most scholars as correct for nearly 2000 years!\*



# Archimedes



Great inventor, invented many practical tools & calculated pi.

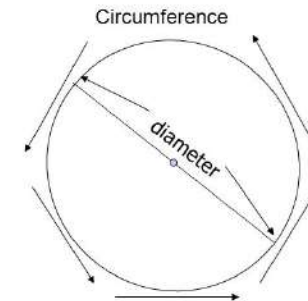


Archimedes Screw

What is Pi?

- Pi is the ratio of circumference of a circle to diameter of a circle
- The symbol for pi

$\pi$



$$\pi = \frac{\text{Circumference}}{\text{Diameter}}$$

# Colossus of Rhodes



∞ A Giant statue, **one of the ancient wonders of the world**, said to guard the harbor of the city of Rhodes.

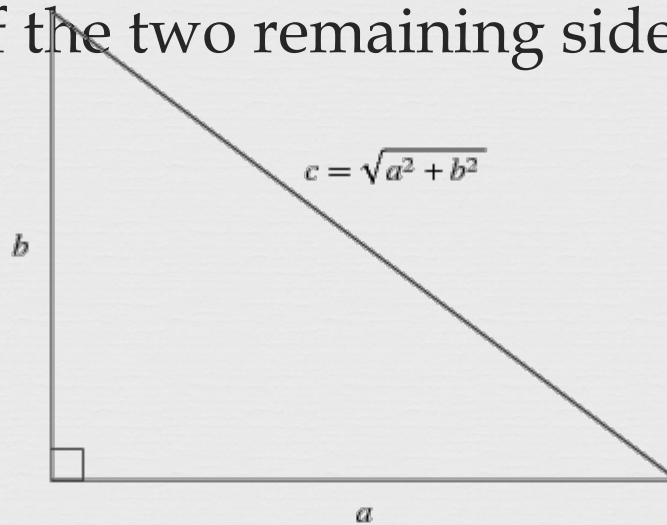




# Pythagorean Theorem



Pythagoras was a Greek Mathematician who discovered a Mathematical formula (the square of a right triangle's hypotenuse equals the sum of the squared lengths of the two remaining sides).





### 3. How did trade contribute to cultural diversity in the Hellenistic city of Alexandria?



☞ TRADE = exposure to ideas from far away =  
Cultural Diffusion.

## 4. How did Euclid influence some of the developments in astronomy during the Hellenistic period?



- ∞ **Euclid wrote a geometry text** which became a textbook for others.
- ∞ **Eratosthenes** who estimated the circumference of the Earth **and Aristarchus** who estimated the size of the sun **BOTH used Euclid's work in their discoveries.**
- ∞ His book, ***Elements***, contains 465 proofs that are still the basis of geometry courses today.

# Aristarchus



- ✧ Discovered that Earth revolved around sun & that the sun is much larger than the earth (but no one believed him – they thought like Ptolemy, that the Earth was the center of the solar system).



# Eratosthenes



☞ very closely estimated **the circumference of the earth** (between 28,000 & 29,000 miles).

☞ Actual circumference: 24,860.

Why Important:

☞ **The Greeks knew the size of the earth & that it was round!**





## 5. What did Stoicism and Epicureanism have in common?



- ☞ The philosophies of Stoicism and Epicureanism both **encouraged people to live virtuous lives**. Virtuous = guided by **good morals and ethics**.
- ☞ Epicureanism today has come to mean someone devoted to the pursuit of worldly pleasures – especially good food!

## 6. Describe how the growth of Alexander's empire spread Greek culture.

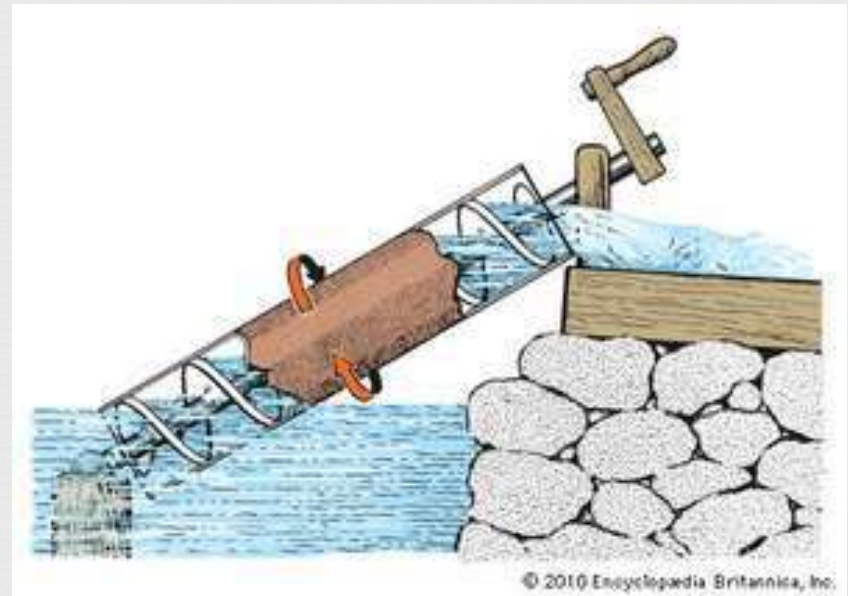


- As Alexander's Empire expanded so did Greek culture because of **Alexanders ruling style**:
  - Alex was tolerant** – allowed people to keep their religion and customs – often making sacrifices to the local religion's gods – **gained respect of the locals.**
  - Alexander encouraged **his soldiers to settle down and marry into the local customs.**
  - After the conquest many **merchants, artisans, and officials settled in his conquered lands** – bringing with them Greek culture and ideas.

# 7. What do you think was the greatest scientific advance of the Hellenistic period?

## Why?

- Perhaps one of the greatest scientific advances of the Hellenistic period was **the work of Archimedes**. His inventions would influence the **practical application of new tools** throughout the next 1000 years!
- Ex: The Archimedes screw



# Zeno



☞ Greek philosopher who founded Stoicism



# Stoicism



☞ A philosophy which believed people should live virtuous lives according to the natural laws that govern the universe established by the gods.

# Epicurean



⌘ A person who is devoted to the pursuit of worldly pleasures. (The gods who don't care about humans run the universe).