The Spread Of Greek Culture
Greek Culture Spreads
Philosophers, poets, scientists, and writers moved to the new Greek cities in southwest Asia, particularly Alexandria, during the Hellenistic Era.
The Colossus of Rhodes was a statue of the Greek god Helios, erected on the Greek island of Rhodes by Chares of Lindos between 292 and 280 BC. It is considered one of the Seven Wonders of the Ancient World. Before its destruction, the Colossus of Rhodes stood over 30 meters (107 ft) high, making it one of the tallest statues of the ancient world.
Hellenistic kings wanted to make their cities like those in Greece, so they hired Greek architects and sculptors.
Alexandria
The writers of the Hellenistic Era produced a large body of literature.

- Appolonius wrote the epic poem *Argonautica*, recounting the legend of Jason and his band of heroes.

- Theocritus wrote short poems about beauty and nature.
Athenians still created plays, but the plays of the Hellenistic Era were about love and relationships.

- Menander - Athenian playwright that wrote comedies.
Epicurus, the founder of Epicureanism, taught that happiness was the goal of life. Came from spending time with friends.
Stoicism was developed by a Phoenician named Zeno.

This philosophy believes that happiness comes from reason, not emotions.
Diogenes

- Founder of the Cynic philosophy
- Cynicism
  - In order to be happy, people should live according to nature. They should ignore pleasure, wealth, and society.
Pyrrho

- Founder of the philosophy of Skepticism
- Skepticism teaches that people can never know how things really are. They should just accept whatever happens to them.
Astronomers study the stars, planets, and other heavenly bodies.

- **Aristarchus** was an astronomer who claimed that the sun was at the center of the universe and that Earth revolved around the sun.

- Heliocentric
Eratosthenes was an astronomer who believed that the earth was round and measured Earth’s circumference.

With \( h \) and \( s \) known, you can solve for \( \theta \).

With \( \theta \) known, you can use the equation:

\[
(360^\circ/\theta) \times (s)
\]

... to measure the circumference of the Earth.
Hipparchus

- Created a system to explain how planets and stars move.
Pythagoras

- First to establish the principles of geometry
- Pythagorean Theorem

- The sum of the areas of the two squares on the legs ($a$ and $b$) equals the area of the square on the hypotenuse ($c$).
Euclid, one of the most famous Greek mathematicians, described plane geometry in his book the *Elements*.

Plane geometry is the study of points, lines, angles, and surfaces.
Hippocrates

- Father of Medicine
  - Began to separate medicine from religion

- Hippocratic Oath
  - Promise never to harm and always to care for their patients.
Praxagoras

➢ Studied anatomy
  - Theory of circulation
Archimedes was the most famous scientist of the Hellenistic Era.

He worked on solid geometry—the study of spheres and cylinders.
He also determined the value of \( \pi \), a number used to measure the area of circles.

Archimedes invented the catapult, among other weapons.
In the first century BC the Roman architect Vitruvius related a story of how Archimedes uncovered a fraud in the manufacture of a golden crown commissioned by Hiero II. Suspecting that the goldsmith might have replaced some of the gold given to him by an equal weight of silver, Hiero asked Archimedes to determine whether the wreath was pure gold.

Because the wreath was a holy object dedicated to the gods, Archimedes could not disturb the wreath in any way. Archimedes' solution to the problem is described by Vitruvius.

"[Archimedes] happened to go to the bath, and on getting into a tub observed that the more his body sank into it the more water ran out over the tub. As this pointed out the way to explain the case in question, he jumped out of the tub and rushed home naked, crying with a loud voice that he had found what he was seeking; for he as he ran he shouted repeatedly in Greek, "Eureka, eureka." meaning "I have found (it), I have found (it)."
Archimedes' Claw