



One of the Seven Wonders of the World, the lighthouse at Alexandria provided safe traveling into the port. Still standing as late as the 1100s AD, it was 110 meters high, with the pyramids of Giza being the only taller structures made by human hands. It cost 4.8 million drachmae to build.

EXPANDING HELLENISTIC WORLD

Spread of koine Greek dialect

(far beyond the earlier boundaries of the Greek language)
based on koine Ionian Greek/Attic Greek spread by Athenians
used not only by Greeks, but non Greek populations: Jews, Romans, Egyptians, and Mesopotamians

Rise of large Greek cities

Alexandria (Egypt), Antioch (Syria), and Seleucia (Mesopotamia)
Each of these cities had populations that were much larger than Athens, the most populous Greek city, in the classical era.

Scientific advances

Aristarchus of Samos (heliocentric view of solar system; distance of moon & sun from earth)
Eratosthenes of Cyrene, who calculated the circumference of the earth (252,000 *stadia*), off most likely by less than 1%; he also saw that the Afro-Eurasian landmass was one large mass, and the Atlantic & Indian Oceans were one large body of water, & that one could sail from Spain to India if one sailed south of Africa
Hipparchus (solar year to 6 $\frac{1}{4}$ mins), based on the calculation of a Babylonian astronomer (Kiddinu of Sippar, fl. 260 BC) who calculated the solar year to 7 $\frac{1}{4}$ minutes; ancient Egyptians had long since used a 365 day calendar, without leap days introduced.

Increase in trade

increased contacts with the Far East
increased money in circulation (Persian tax revenues confiscated, & increased economic development)
increased Greek expansion eastward (Seleucia, Antioch, & Alexandria)
Persians had excluded Greek merchants from eastern trade
direct sea route from Egypt to India (instead of hugging the coast)
the revenue from farming out the import & export taxes at Rhodes in the Hellenistic era was over five times what the same revenue from Athens in 401 & 400 BC (1 million drachmae versus 200,000)