

**Chapter 14-18 Review**

1. The center of learning and culture in the world before the 4<sup>th</sup> century BCE was
  - a. Alexandria
  - b. Syracuse
  - c. Athens
  - d. Babylonia
2. Alexander founded his great city in this country, which was home to the Library of Alexandria - the center for intellectual discovery
  - a. Greece
  - b. Ionia
  - c. Italy
  - d. Egypt
3. The study of points, lines, angles, surfaces, and solid shapes is
  - a. Mathematics
  - b. Geology
  - c. Geometry
  - d. Philosophy
4. "The whole is equal to the sum of its parts" is an
  - a. Equation
  - b. Axiom
  - c. Proposition
  - d. Law
5. Eratosthene's sieve is a device for finding
  - a. Integers
  - b. Natural numbers
  - c. Prime numbers
  - d. Irrational numbers
6. Angles that have the same measurement are
  - a. Right angles
  - b. Parallel lines
  - c. Degree angles
  - d. Congruent angles
7. When Archimedes said that he could lift the Earth, he was thinking about using a
  - a. Lever
  - b. Claw
  - c. Catapult
  - d. Bathtub

8. The statement, "An object immersed in a liquid will displace a volume of liquid equal to the object's own volume," is
- Euclid's Proposition
  - Archimedes' Principle
  - Eratosthenes' sieve
  - The law of the lever
9. Before Eratosthenes could calculate the circumference of the Earth, he had to assume that
- The distance between Alexandria and Syene is less than 100 miles
  - The Earth is round
  - The walker would start at noon
  - The Sun's rays are not parallel

Match one of Hero's simple machines to the invention that uses it. Use each letter more than once.

- |          |                   |           |
|----------|-------------------|-----------|
| a) lever | b) inclined plane | c) pulley |
| d) wedge | e) wheel and axle | f) screw  |

- |                        |                     |
|------------------------|---------------------|
| _____ crow bar         | _____ window blinds |
| _____ axe              | _____ seesaw        |
| _____ wagon            | _____ stairs        |
| _____ bottle opener    | _____ jar lid       |
| _____ sailboat rigging | _____ sliding board |
| _____ light bulb       | _____ roller skate  |
| _____ nail             |                     |

Label the map "Geography of Science in the Ancient World" with these locations:

- Athens
- Alexandria
- Rome
- Ionia
- Mesopotamia
- Nile River
- Mediterranean Sea
- Tigris and Euphrates Rivers
- Aegean Sea

Write a short, meaningful paragraph to describe Alexandria, Egypt. Use these terms in your sentences:

Mouseion      Ptolemy      Mediterranean      Hero      lighthouse      Alexander the Great

Write a short, meaningful paragraph to describe the work of Euclid. Use these terms in your sentences:

*The Elements*      axioms      geometry

Write a short, meaningful paragraph to describe how Archimedes proved that the goldsmith had cheated the king when he made the crown. Use these terms in your sentences:

gold      immerse      volume      displace      density      silver