## **Test Prep**

**Reading Comprehension** Read the passage below. Then answer the questions on the basis of what is *stated* or *implied* in the passage.

**Early Geometry** The early Babylonians and Egyptians used practical geometry in their buildings, but it was a Greek named Thales who first wrote down the formal abstract geometry that we know today.

Thales, an olive-oil merchant, lived from about 600 to 550 B.C. One of the unchanging properties of triangles that he discovered was that a triangle drawn in a semicircle (half a circle), with the diameter as a hypotenuse, will always be a right triangle.



Around 540 B.C. a student of Thales, Pythagoras, founded a group that studied, among other things, mathematics. One of the rules of the *Pythagoreans* was never to eat beans! At first, they believed that the entire universe was made of only rational numbers, but working with right triangles convinced them that they could draw lines that have lengths equal to the square root of 2, the square root of 5, and so on.

- 1. What is the name of a teacher of Pythagoras?
- 2. What was the name of a group founded by Pythagoras?
- 3. What is the measure of ∠C?
  A. 360° B. 180° C. 90° D. 45°
- 4. Which term best describes AC?
  F. leg
  G. sine
  H. hypotenuse
  I. tangent
- **5.** If AC = CB = 1 in., what is *AB*? **A.** 2 in. **B.**  $\sqrt{3}$  in. **C.**  $\sqrt{2}$  in. **D.** 1 in.
- 6. If AB = 6 in. and DB = 3 in., what is AD? F.  $3\sqrt{2}$  in. G.  $3\sqrt{3}$  in. H.  $6\sqrt{2}$  in. I.  $6\sqrt{3}$  in.

- 7. If AB is  $\sqrt{8}$  cm and AC = CB, what are AC and CB?
- 8. Which term does NOT apply to AB?
  A. diameter
  B. hypotenuse
  C. leg
  D. line segment
- **9.** How does the measure of  $\angle D$  compare with the measure of  $\angle C$ ?
- 10. What country was Thales from?
- 11. How long did Thales live?
- 12. What must be true of  $\sqrt{2}$ ?I. It is not a rational number.II. A segment can have length  $\sqrt{2}$ .III. It is equal to  $\sqrt{5}$ .F. I onlyG. I and IIH. I and IIII. II and III only