

Name: _____ Date: _____

1. The _____ of a geometric figure is the distance around it.
 - A) area
 - B) volume
 - C) perimeter
 - D) height

2. If a right triangle has a hypotenuse of length c and legs of length a and b , then according to the Pythagorean theorem, $a^2 = b^2 + c^2$.
 - A) True
 - B) False

3. The volume of a box is given by:
 - A) Length + Width + Height
 - B) Length \times Width \times Height
 - C) Length + Width \times Height
 - D) Length \times Width + Height

4. The surface area of a cylinder (excluding the top and bottom) of radius r and height h is given by $2\pi rh$.
 - A) True
 - B) False

5. Find the area of a right triangle whose legs have lengths 3 and 4.
 - A) 18
 - B) 14
 - C) 12
 - D) 6

6. The length of the hypotenuse of a right triangle is 10 and a leg has length 3. Find the length of the other leg.
 - A) 8.7
 - B) 7.9
 - C) 9.5
 - D) 11.2

7. A triangle with sides of length 8, 15, and 17 is a right triangle.
- A) True
 - B) False
8. A restaurant serves soda pop in cylindrical pitchers that are 6 inches in diameter and 10 inches tall. What is the volume of the pitcher?
- A) 1130.4 in^3
 - B) 94.2 in^3
 - C) 118.4 in^3
 - D) 282.6 in^3
9. A soup can has a diameter of 2.75 inches and a height of 4.25 inches. Find the volume of the soup can.
- A) 25.23 in^3
 - B) 38.99 in^3
 - C) 155.97 in^3
 - D) 100.92 in^3
10. A soup can has a diameter of 2.75 inches and a height of 4.25 inches. How many square inches of metal are required to make the soup can?
- A) 36.7
 - B) 48.6
 - C) 84.2
 - D) 120.9
11. The size of a monitor (also called a display) is usually measured in terms of the diagonal size of the rectangle. If a monitor measures 13.2 inches by 17.8 inches, what is the length of the diagonal?
- A) 31.0 inches
 - B) 22.2 inches
 - C) 15.5 inches
 - D) 18.7 inches
12. I have a triangular yard whose lengths measure 50, 60, and 70 feet. I want to fertilize my lawn with bags of fertilizer that cover 400 square feet each. How many bags of fertilizer will I need to buy?
- A) 2
 - B) 3
 - C) 4
 - D) 5

13. You determine that it will take 900 ft^3 of gravel to cover your driveway. If gravel is ordered in cubic yards, how many cubic yards of gravel do you need?
- A) 30 yd^3
 - B) 90 yd^3
 - C) 33 yd^3
 - D) 27 yd^3
14. The volume of a ball with radius r is given by $\frac{4}{3}\pi r^3$. If a golf ball has a diameter of 1.68 inches, what is its volume?
- A) 59.59 in^3
 - B) 7.45 in^3
 - C) 19.86 in^3
 - D) 2.48 in^3
15. For the figure below, use the Pythagorean theorem to find the missing lengths (rounded to two decimal places) and then find the area and perimeter.

