Tenth Grade
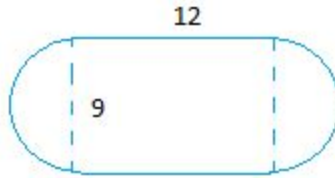
Name: Date:

1. What is the perimeter and area of the following running track?

12

9

2. Which line or lines are perpendicular to the line y = 6x - 8 ?

    A. y = 6x + 1   **B.** x - 6y = 9
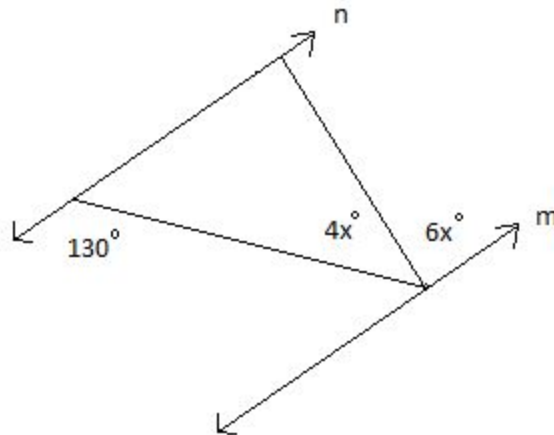
    C. x + 6y = -3   **D.** y = -6x - 1

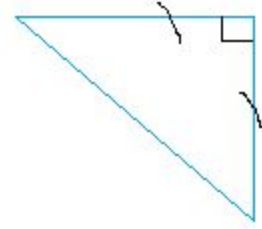**3.** Find two angles that are supplementary and vertical at the same time

4. What is the measure of an exterior angle of a regular 10-gon?

5. In the figure below, line n is parallel to line m. Find the measure of all angles inside line n and line m.

n

$4x^\circ$ $6x^\circ$ m

130°

6. Find the volume and surface area of a sphere with radius 4 cm

7. What kind of triangle is the one below? Find all 3 angles.

      A. Equilareral   **B**. Right

      C. Right isosceles   **D**. Scalene

8. In triangle UVW, UV = 9, VW = 7, and UW = 11. Which angle is the biggest?

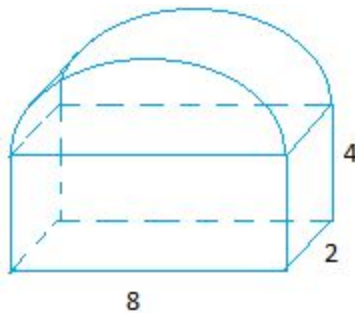   **A**. Angle U   **B**. Angle V   **C**. Angle W   **D**. not enough information

9. The surface area of sphere A is 4 times bigger than the area of sphere B. How big is the volume of sphere A compared to sphere B?

10. Graph points A (-3, 3), C(4, -3), and D(4, 3). Name the figure and show that segment AD is perpendicular to segment CD. Write equations for all 3 segments.

11. The length of the hypotenuse of an isosceles right triangle is 10 inches. What is the length of one leg?
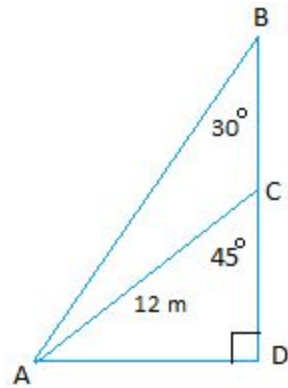
12. Find the volume and surface area of a rectangular prism 3 cm by 5 cm by 10 cm.

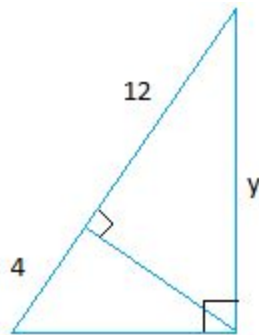**13.** What is the volume of the figure below?

14. If the clock says 4:00 PM, what is the measure of the angle formed by the hands?

15. Use the triangle below to find the lengths of AB and CD

B

30°

C

45°

12 m

D

A

16. Use the triangle below to find y

12

y

4

17. Use the triangle below to find x

6x

10x + 4