

Name:

8.6 Exam: Analytic geometry, solids, trigonometry

1. Express as an exact value the area of the sector of a circle with central angle 45° and radius 5. G.C.5

2. What is the image of the point $(3, 4)$ after it is reflected across the x -axis? G.CO.5

3. What is an equation of the image of the line $y = \frac{1}{4}x + 5$ after a translation up 2?

4. Write down the equation of a circle with center $(5, -3)$ and radius 2. G.GPE.1a

5. Find the center and radius of the circle with equation $(x - 2)^2 + (y + 3)^2 = 16$.

6. What equation represents a line with a y -intercept of $b = 1$ that is perpendicular to the line represented by $y = -\frac{1}{2}x + 7$? G.GPE.5

7. Write an equation of the line that is parallel to the line whose equation is $4x - 2y = 7$ and passes through the point $(3, 5)$.

8. Find the volume of a rectangular prism having the dimensions length 10, width 5, and height 3. G.GMD.3
9. A tent in the form of a pyramid with a square base has sides measuring 60 inches and height of 72 inches. What is the volume of the tent rounded *to the nearest cubic foot*?
10. Find the weight, rounded *to the nearest gram*, of a solid lead cannonball with a diameter of 10 centimeters. Lead has a density of 11.34 grams per cubic centimeter.
11. The angle of elevation to the top of a tower located 800 feet away is 12° . Find the height of the tower *to the nearest foot*. G.SRT.8