Integrated Math 3 Unit 1: Analytic Geometry 1.14 WS Name: \_\_\_\_\_

Date: \_\_\_\_\_ Period: \_\_\_\_\_

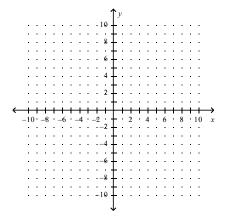
## **Continued Practice**

1. Given the line  $y = -\frac{3}{4}x + 2$ , write the equation of a line perpendicular to the given line that goes through the point (6, -1) in point-slope form.

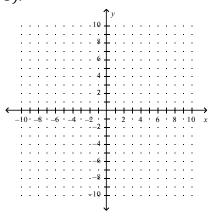
2. Given the line  $y = -\frac{3}{4}x + 2$ , write the equation of a line parallel to the given line that goes through the point (6, -1) in slope-intercept form.

3. The distance across a circular pool is 5. In the coordinate plane, this distance is represented by the endpoint (-2, 3) and (-6, y). For the given distance, find ALL possible values of *y*.

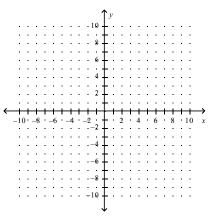
4. Write a tangent line for the following circle:  $x^2 + y^2 = 40$  at the point (-2, 6).



- 5. Classify the following quadrilaterals:
  - a. Quadrilateral ABCD has coordinates A(4, 7), B(9, 7), C(6, 3), and D(1, 3).



b. Quadrilateral ABCD with coordinates: A(-2, 3), B(2, 4), C(2, -2) and D(-2, -1).

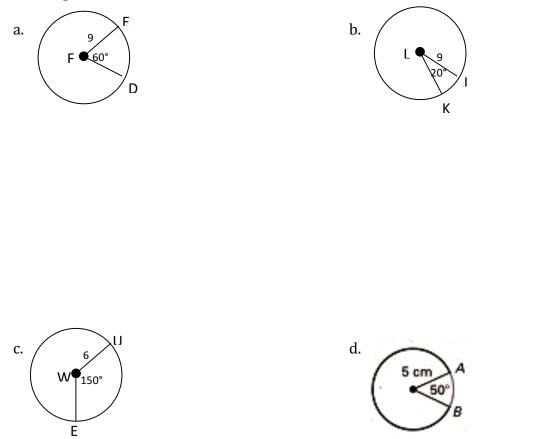


6. For a circle with center (5, -2) and a point at (-3, 8) ...

a. Determine the radius.

b. Write the equation of the circle.

7. Find the length of the minor arc and the area of the sector.



8. Complete the square:  $8x + x^2 - 2y + y^2 = 64$ 

- 9. Given the equation of a circle is  $y^2 + x^2 + 24x + 10y + 160 = 0$ , find each of the following.
  - a. Standard form

- b. The center
- c. The radius
- d. The diameter
- e. The area
- f. The circumference