

## Worksheet 22 - Lesson 62 &amp; 63

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

- 1) The total cost varied linearly with the number produced. When 200 were produced, the cost was \$2050. When 30 were produced, the cost was \$350. Write an equation that gives cost as a function of the number produced.

- 2) Solve for  $y$ :

$$mx + ny = c$$

$$dx + ey = f$$

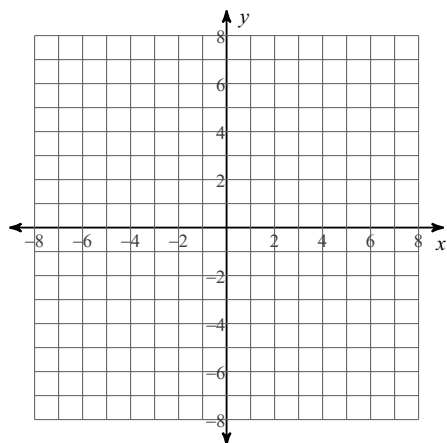
- 3) Solve for  $x$ :

$$ax - by = c$$

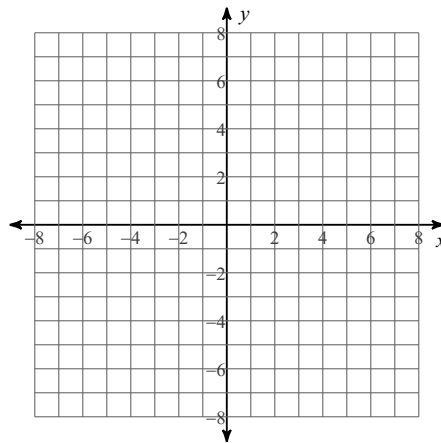
$$dx + y = d$$

**Identify the center and radius of each. Then sketch the graph.**

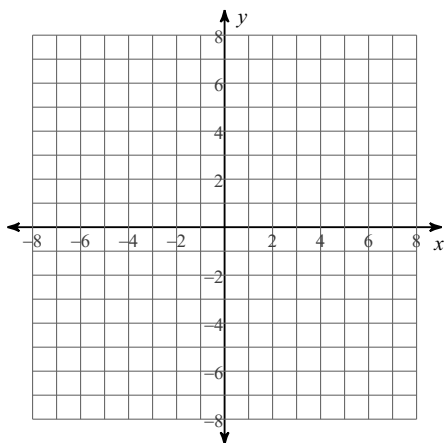
4)  $2x^2 + 2y^2 + 2x - 2y - 31 = 0$



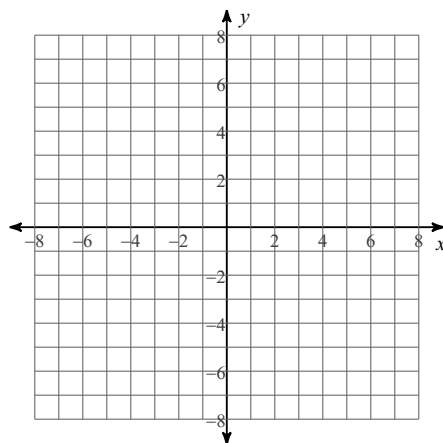
5)  $x^2 + y^2 - 4x - 5 = 0$



$$6) x^2 + y^2 - 2x - 8y + 13 = 0$$



$$7) x^2 + y^2 + 6x + 4y - 3 = 0$$



Solve each equation for  $-\frac{\pi}{2} \leq \theta \leq \frac{\pi}{2}$ .

$$8) -2 + \sin\left(\theta + \frac{\pi}{2}\right) = -2$$

$$9) -2\sqrt{3} = -2\cot 4\theta$$

$$10) 2 + \cos 4\theta = \frac{3}{2}$$

$$11) \sec(\theta + \pi) = \sqrt{2}$$