

## Circles Review

Use the information provided to write the standard form equation of each circle.

1)  $x^2 + y^2 + 30x + 18y + 290 = 0$

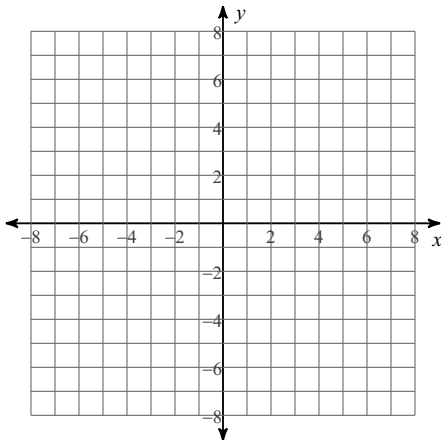
2)  $x^2 + y^2 - 28x + 16y + 247 = 0$

3) Center:  $(-3, 11)$   
Radius: 7

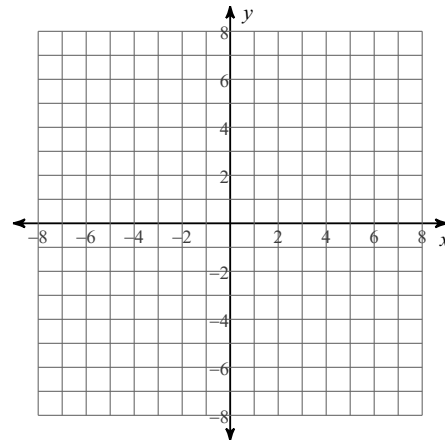
4) Center:  $(8, 4)$   
Radius: 5

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

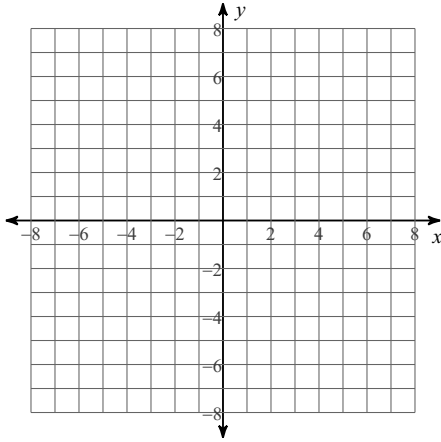
5)  $x^2 + y^2 + 6x - 4y + 9 = 0$



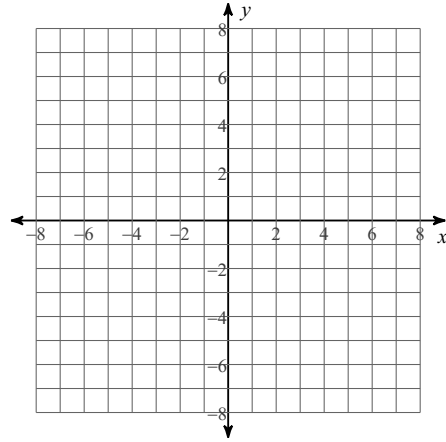
6)  $x^2 + y^2 - 4x + 6y + 4 = 0$



$$7) (x + 4)^2 + (y - 2)^2 = 1$$



$$8) (x - 2)^2 + (y - 2)^2 = 4$$



**Classify each conic section.**

$$9) 16x^2 + 9y^2 + 32x - 18y - 119 = 0$$

$$10) y^2 + 3x + 10y + 7 = 0$$

$$11) x^2 + y^2 + 8x + 8y + 31 = 0$$

$$12) 2x^2 + 4y^2 - 12y - 71 = 0$$

$$13) x^2 + y^2 + 8x + 4y + 16 = 0$$

$$14) x^2 + 6x + y + 10 = 0$$

$$15) -9x^2 + 25y^2 + 100y - 125 = 0$$

$$16) 9x^2 - 4y^2 + 8y - 40 = 0$$

## Answers to Circles Review

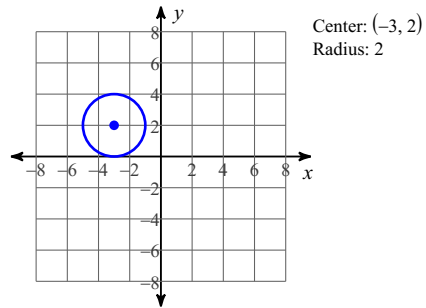
1)  $(x + 15)^2 + (y + 9)^2 = 16$

4)  $(x - 8)^2 + (y - 4)^2 = 25$

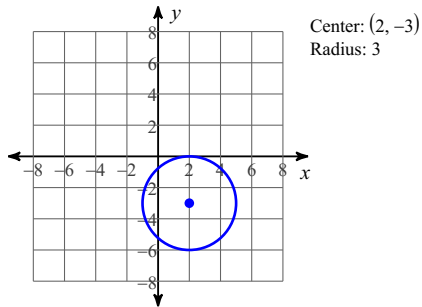
2)  $(x - 14)^2 + (y + 8)^2 = 13$

5)

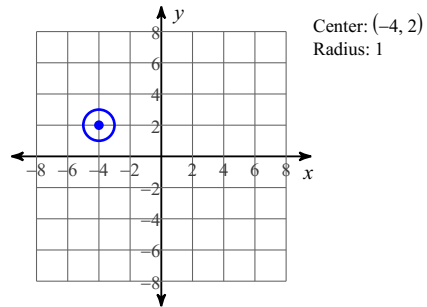
3)  $(x + 3)^2 + (y - 11)^2 = 49$



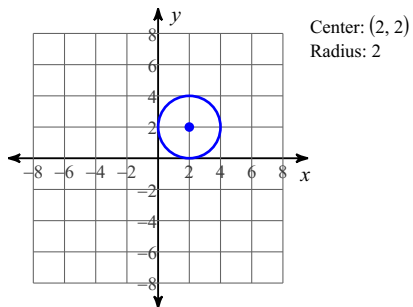
6)



7)



8)



9) Ellipse

10) Parabola

11) Circle

12) Ellipse

13) Circle

14) Parabola

15) Hyperbola

16) Hyperbola