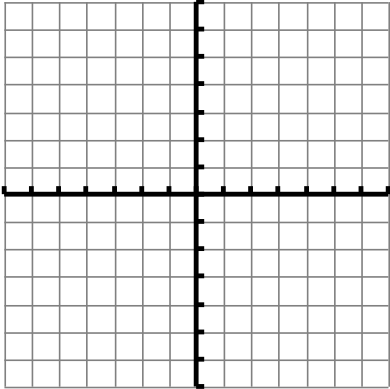


For each circle state the center & radius, and then graph.

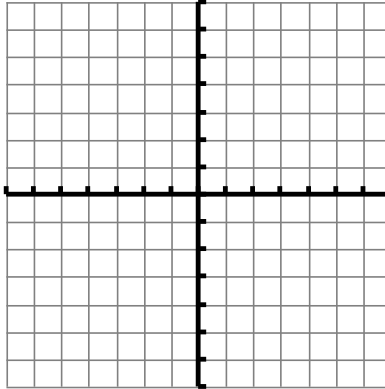
1. $(x-2)^2 + (y-3)^2 = 16$

center: _____ r = _____



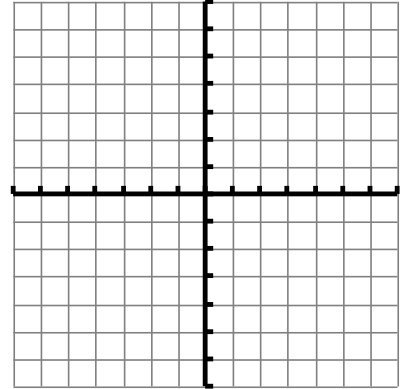
2. $(x+5)^2 + y^2 = 4$

center: _____ r = _____



3. $(x-4)^2 + (y+1)^2 = 9$

center: _____ r = _____



Write each equation in standard form. Identify the center and the radius.
Then sketch the graph.

4. $x^2 + y^2 + 24x + 6y + 152 = 0$

5. $x^2 + y^2 - 4x + 6y - 3 = 0$

6. $x^2 + y^2 + 6x + 24y + 89 = 0$

Write the standard form equation of each circle.

7. Write the equation of the circle with center $(4, -2)$ and radius 3.

8. Write the equation of the circle with center $(0, 0)$ passing through $(2, 5)$.

9. Find the equation of the circle with center $(-1, 2)$ and diameter 8.

10. Write the equation of the circle whose diameter has endpoints $(-3, -2)$ and $(3, 6)$.

Answers:

1) C: $(2, 3)$ $r = 4$

2) C: $(-5, 0)$ $r = 2$

3) C: $(4, -1)$ $r = 3$

4) C: $(-12, -3)$ $r = 1$

5) C: $(2, -3)$ $r = 4$

6) C: $(-3, -12)$ $r = 8$

7) $(x-4)^2 + (y+2)^2 = 9$

8) $x^2 + y^2 = 29$

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

10) $x^2 + (y-2)^2 = 25$