

Properties of circles and graphing circles

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

1) Center: $(-8, 12)$
Radius: 5

2) Center: $(10, -9)$
Radius: 9

3) Center: $(10, -4)$
Radius: 2

4) Center: $(10, 15)$
Radius: 2

5) Center: $(6, -16)$
Radius: 3

6) Center: $(-5, 14)$
Radius: 5

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

7) Center: $(11, -15)$
Radius: 2

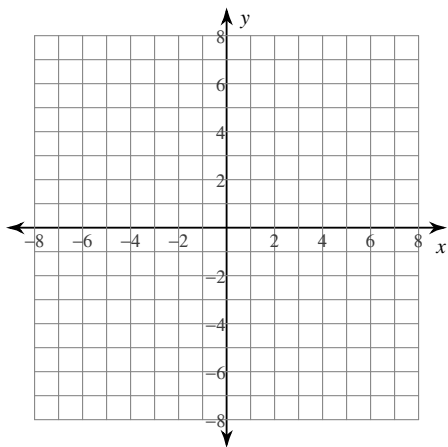
8) Center: $(4, 2)$
Radius: 4

9) Center: $(-4, -12)$
Radius: 6

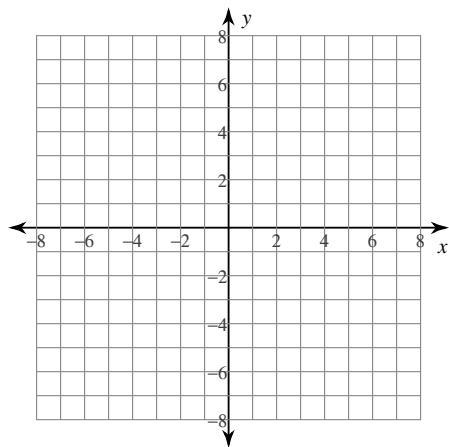
10) Center: $(-11, -13)$
Radius: 5

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

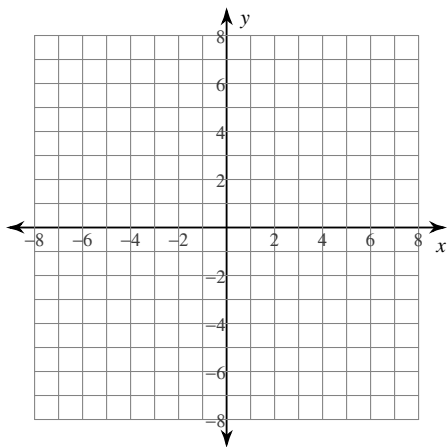
11) $(x + 1)^2 + (y + 2)^2 = 1$



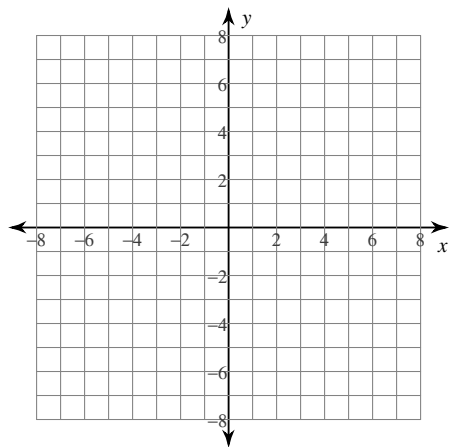
12) $x^2 + (y - 1)^2 = 29$



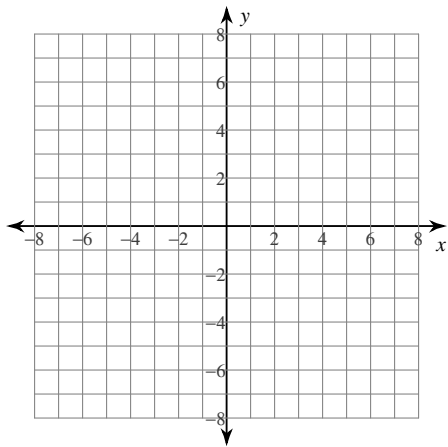
13) $(x - 4)^2 + (y - 3)^2 = 4$



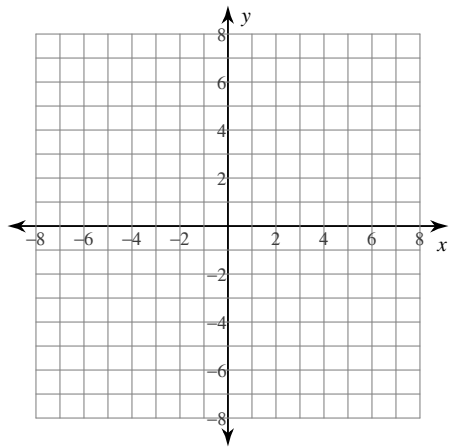
14) $x^2 + (y - 1)^2 = 9$



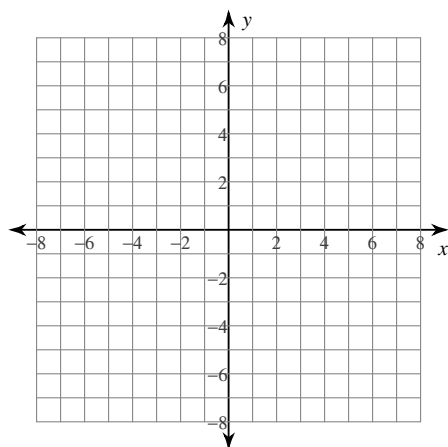
$$15) (x + 3)^2 + (y + 2)^2 = 4$$



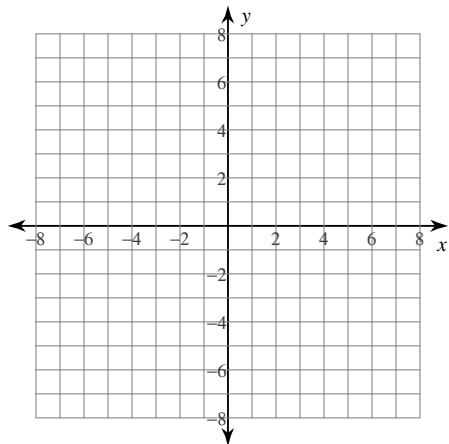
$$16) (x + 4)^2 + (y - 2)^2 = 7$$



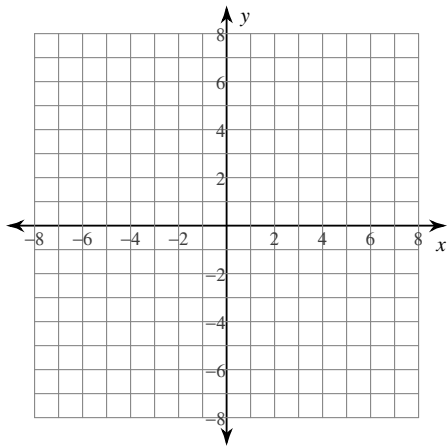
$$17) \left(x - \frac{1}{2}\right)^2 + \left(y - \frac{3}{2}\right)^2 = 1$$



$$18) (x + 3)^2 + (y - 4)^2 = 4$$



$$19) (x - 2)^2 + (y + 3)^2 = 9$$



Answers to Properties of circles and graphing circles

1) $(x + 8)^2 + (y - 12)^2 = 25$

2) $(x - 10)^2 + (y + 9)^2 = 81$

3) $(x - 10)^2 + (y + 4)^2 = 4$

4) $(x - 10)^2 + (y - 15)^2 = 4$

5) $(x - 6)^2 + (y + 16)^2 = 9$

6) $(x + 5)^2 + (y - 14)^2 = 25$

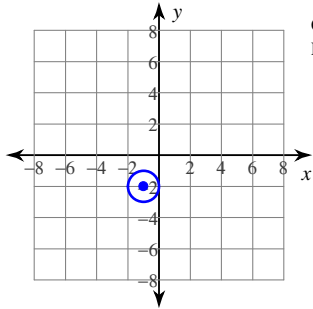
7) $x^2 + y^2 - 22x + 30y + 342 = 0$

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

9) $x^2 + y^2 + 8x + 24y + 124 = 0$

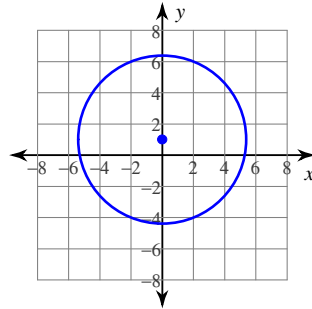
10) $x^2 + y^2 + 22x + 26y + 265 = 0$

11)



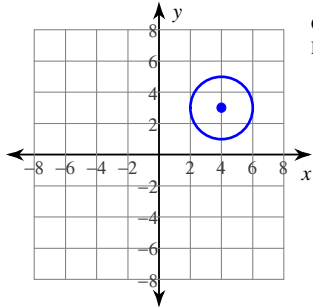
Center: $(-1, -2)$
Radius: 1

12)



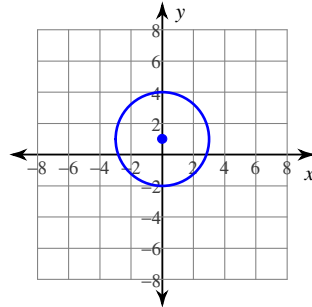
Center: $(0, 1)$
Radius: $\sqrt{29}$

13)



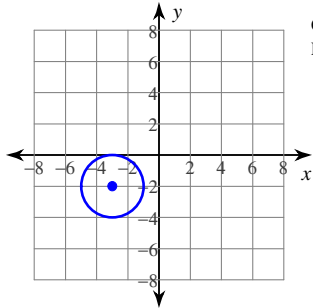
Center: $(4, 3)$
Radius: 2

14)



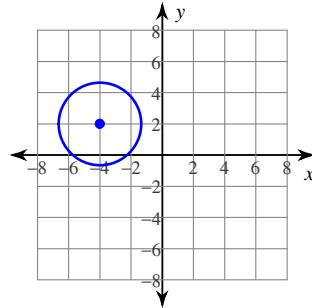
Center: $(0, 1)$
Radius: 3

15)



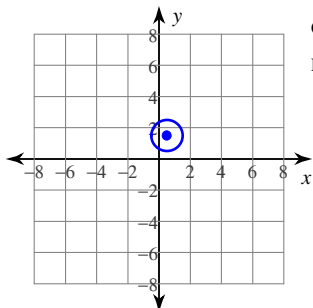
Center: $(-3, -2)$
Radius: 2

16)



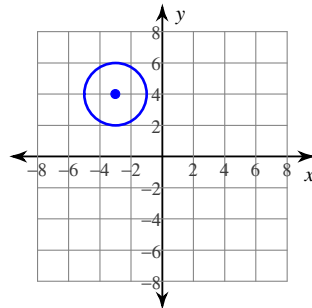
Center: $(-4, 2)$
Radius: $\sqrt{7}$

17)



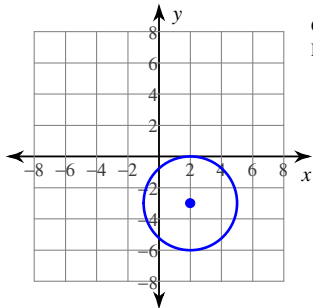
Center: $(\frac{1}{2}, \frac{3}{2})$
Radius: 1

18)



Center: $(-3, 4)$
Radius: 2

19)



Center: $(2, -3)$
Radius: 3