

## Write Equation of Circles Practice

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

1) Center:  $(-11, 13)$   
Radius: 4

2) Center:  $(-5, -14)$   
Radius: 4

3) Center:  $(3, 13)$   
Radius: 3

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

5) Center:  $(7, -2)$   
Radius: 8

6) Center:  $(0, 0)$   
Radius: 16

7) Center:  $(17, 9)$   
Point on Circle:  $(17, 10)$

8) Center:  $(-1, 15)$   
Point on Circle:  $(-1, 14)$

9) Center:  $(-2, 16)$   
Point on Circle:  $(-3, 17)$

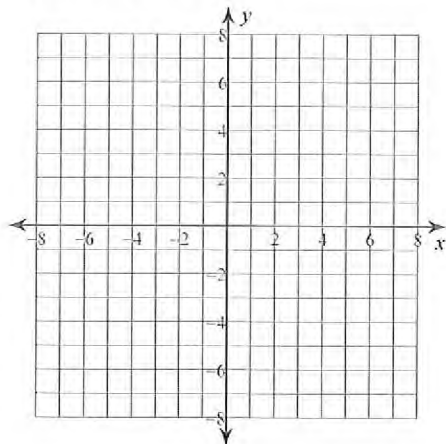
10) Center:  $(1, 5)$   
Point on Circle:  $(14, 6)$

11) Center:  $(12, 2)$   
Point on Circle:  $(15, -4)$

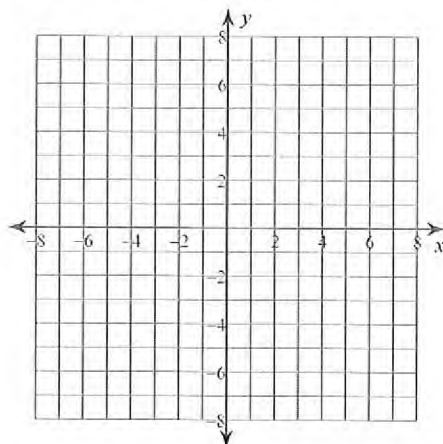
12) Center:  $(0, 0)$   
Point on Circle:  $(-15, -2)$

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

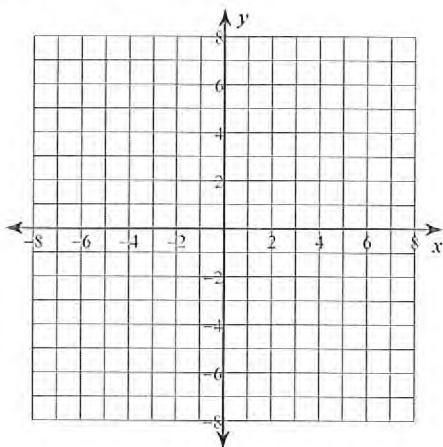
13)  $x^2 + y^2 = 29$



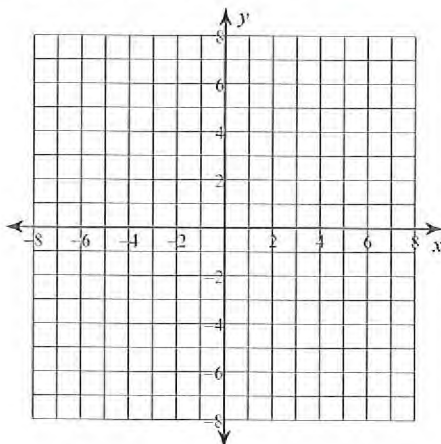
14)  $(x + 2)^2 + (y + 4)^2 = 9$



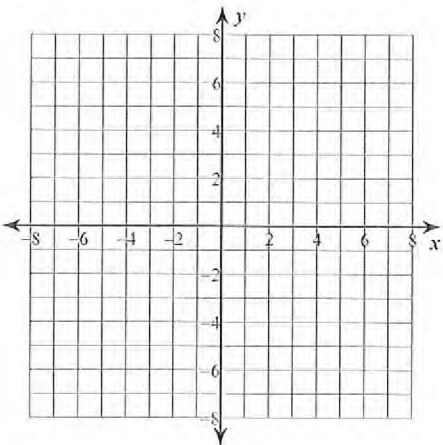
15)  $x^2 + (y - 4)^2 = 1$



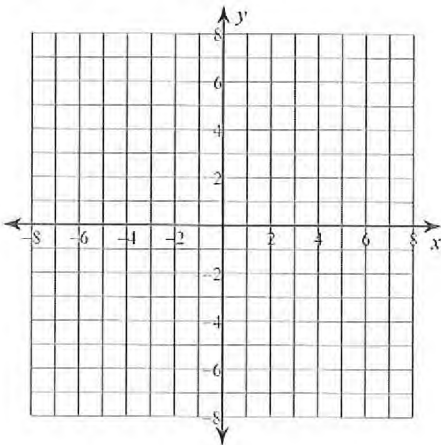
16)  $(x + 4)^2 + (y + 4)^2 = 13$



17)  $(x + 4)^2 + y^2 = 4$



18)  $x^2 + y^2 = 16$



## Write Equation of Circles Practice

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

- 1) Center:  $(-11, 13)$   
Radius: 4

$$(x+11)^2 + (y-13)^2 = 16$$

- 2) Center:  $(-5, -14)$   
Radius: 4

$$(x+5)^2 + (y+14)^2 = 16$$

- 3 pts 3) Center:  $(3, 13)$   
Radius: 3

$$(x-3)^2 + (y-13)^2 = 9$$

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

$$(x-2)^2 + (y+7)^2 = 121$$

- 3 pts 5) Center:  $(7, -2)$   
Radius: 8

$$(x-7)^2 + (y+2)^2 = 64$$

- 6) Center:  $(0, 0)$   
Radius: 16

$$x^2 + y^2 = 256$$

- 7) Center:  $(17, 9)$   
Point on Circle:  $(17, 10)$

$$1 \text{ pt } (17-17)^2 + (10-9)^2 = r^2$$

$$0^2 + 1^2 = r^2 \rightarrow 1 = r^2$$

$$3 \text{ pt } (x-17)^2 + (y-9)^2 = 1$$

- 8) Center:  $(-1, 15)$   
Point on Circle:  $(-1, 14)$

$$(-1+1)^2 + (14-15)^2 = r^2$$

$$0 + 1 = r^2 \rightarrow 1 = r^2$$

$$(x+1)^2 + (y-15)^2 = 1$$

- 4 pts 9) Center:  $(-2, 16)$   
Point on Circle:  $(-3, 17)$

$$1 \text{ pt } (-3+2)^2 + (17-16)^2 = r^2$$

$$1 + 1 = r^2 \rightarrow 2 = r^2$$

$$3 \text{ pt } (x+2)^2 + (y-16)^2 = 2$$

- 10) Center:  $(1, 5)$   
Point on Circle:  $(14, 6)$

$$(14-1)^2 + (6-5)^2 = r^2$$

$$169 + 1 = r^2 \rightarrow 170 = r^2$$

$$(x-1)^2 + (y-5)^2 = 170$$

- 4 pts 11) Center:  $(12, 2)$   
Point on Circle:  $(15, -4)$

$$1 \text{ pt } (15-12)^2 + (-4-2)^2 = r^2$$

$$9 + 36 = r^2 \rightarrow 45 = r^2$$

$$3 \text{ pt } (x-12)^2 + (y-2)^2 = 45$$

- 12) Center:  $(0, 0)$   
Point on Circle:  $(-15, -2)$

$$(-15)^2 + (-2)^2 = r^2$$

$$225 + 4 = r^2 \rightarrow 229$$

$$(x-0)^2 + (y-0)^2 = 229$$

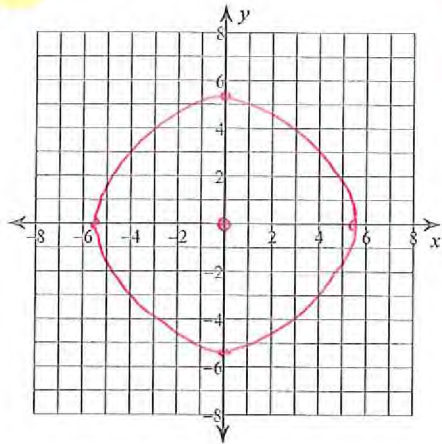


Identify the center and radius of each. Then sketch the graph.

3 pt

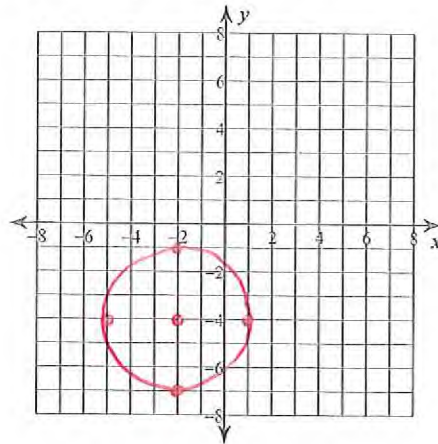
13)  $x^2 + y^2 = 29$

$C: (0,0)$   
 $r = \sqrt{29}$   
 $\approx 5.4$



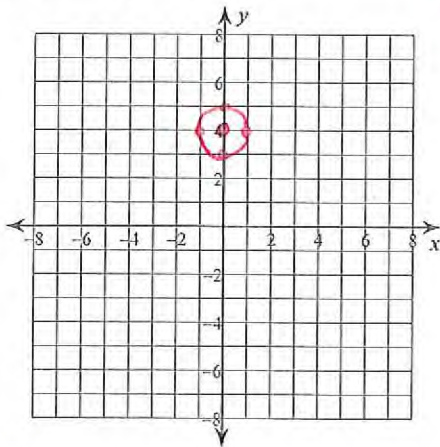
14)  $(x+2)^2 + (y+4)^2 = 9$

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



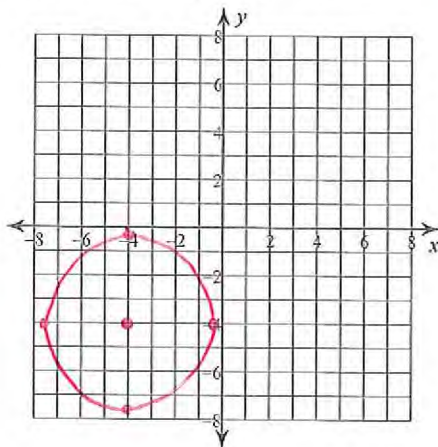
15)  $x^2 + (y-4)^2 = 1$

$C: (0,4)$   
 $r = 1$



16)  $(x+4)^2 + (y+4)^2 = 13$

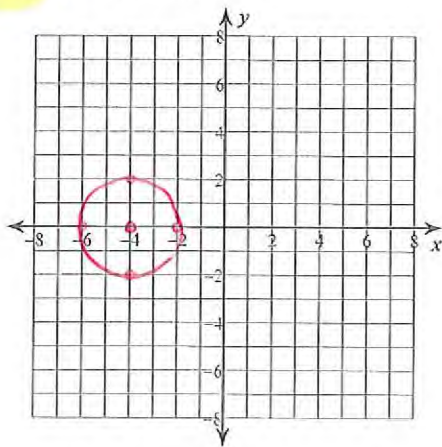
$C: (-4, -4)$   
 $r = \sqrt{13}$   
 $\approx 3.6$



3 pt

17)  $(x+4)^2 + y^2 = 4$

$C: (-4, 0)$   
 $r = 2$



18)  $x^2 + y^2 = 16$

$C: (0,0)$   
 $r = 4$

