

Unit 6.5 Equations of Circles PRACTICE

Period _____

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

- 1) Center: $(0, 0)$
Radius: 15

$$x^2 + y^2 = 225$$

- 2) Center: $(0, 0)$
Radius: $\sqrt{141}$

$$x^2 + y^2 = 141$$

- 3) Center: $(-12, -7)$
Radius: 3

$$(x + 12)^2 + (y + 7)^2 = 9$$

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

$$(x - 11)^2 + (y - 15)^2 = 4$$

- 5) Center: $(1, -3)$
Radius: 14

$$(x - 1)^2 + (y + 3)^2 = 196$$

- 6) Center: $(-7, 10)$
Radius: $2\sqrt{2}$

$$(x + 7)^2 + (y - 10)^2 = 8$$

- 7) Center: $(-1, -4)$
Point on Circle: $(-9, -2)$

$$(x + 1)^2 + (y + 4)^2 = 68$$

- 8) Center: $(-2, 6)$
Point on Circle: $(-3, 17)$

$$(x + 2)^2 + (y - 6)^2 = 122$$

- 9) Center: $(7, -10)$
Circumference: $8\pi\sqrt{3}$

$$(x - 7)^2 + (y + 10)^2 = 48$$

- 10) Center: $(14, -11)$
Circumference: 4π

$$(x - 14)^2 + (y + 11)^2 = 4$$

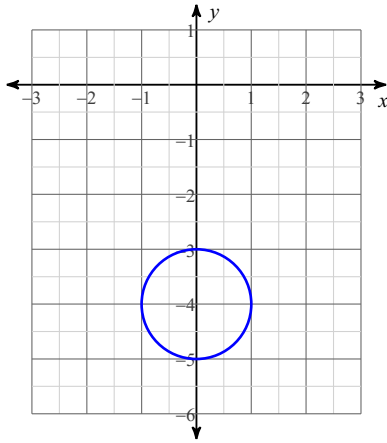
- 11) Center: $(-7, -7)$
Area: 25π

$$(x + 7)^2 + (y + 7)^2 = 25$$

- 12) Center: $(9, -3)$
Area: 81π

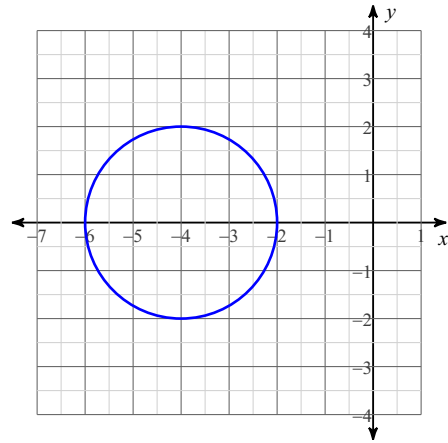
$$(x - 9)^2 + (y + 3)^2 = 81$$

13)



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

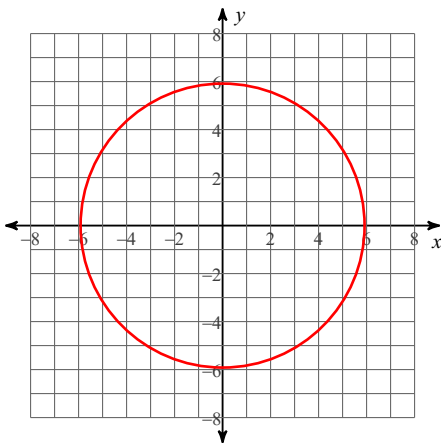
14)



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

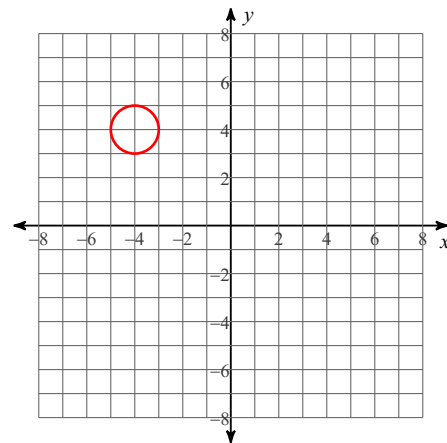
Identify the center and radius of each. Then sketch the graph.

15) $x^2 + y^2 = 35$



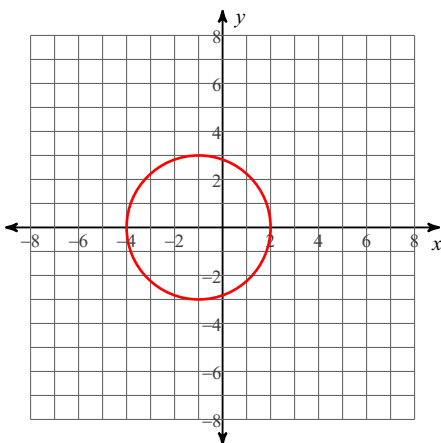
Center: $(0, 0)$
Radius: $\sqrt{35}$

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



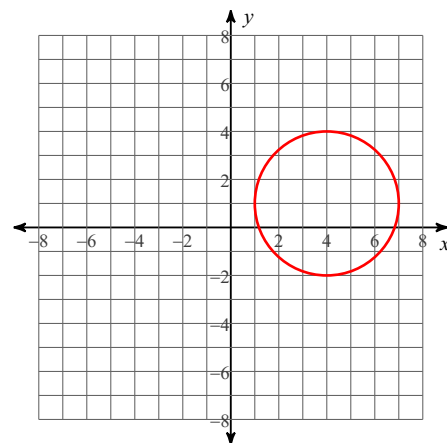
Center: $(-4, 4)$
Radius: 1

17) $(x + 1)^2 + y^2 = 9$



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

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



Center: $(4, 1)$
Radius: 3