Extra Practice: Equations of Circles HW

Date_____ Period____

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

1) Center: $(4, 1)$
Radius: 5

2) Center: $(12, 14)$
Radius: $\sqrt{6}$

3) Center: $(6, -2)$
Circumference: 18π

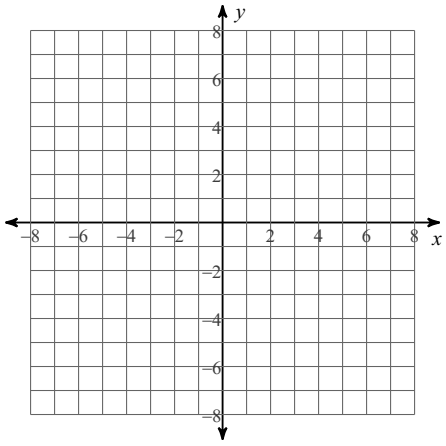
4) Center: $(16, -7)$
Circumference: 6π

5) Center: $(4, 5)$
Area: 169π

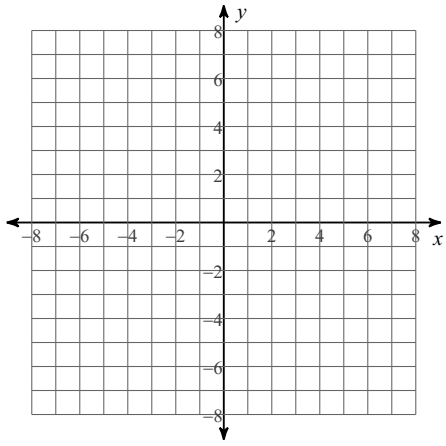
6) Center: $(-9, -4)$
Area: 49π

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

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



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



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

9) Center: $(-1, -17)$
Point on Circle: $(1, -17)$

10) Ends of a diameter: $(-6, 5)$ and $(-16, -5)$

Identify the center and radius of each.

11) $x^2 + y^2 = -56 - 18x$

12) $-20x + x^2 + y^2 = -154 + 20y$

13) $x^2 + y^2 + 2y = -22 - 10x$

14) $x^2 + y^2 + 6y = 14x - 9$

15) $32x + 10y = -y^2 - x^2 - 277$

16) $y^2 + 136 - 18y + x^2 = -16x$

Geometry Name_____ ID: 1

Extra Practice: Equations of Circles HW

Date_____ Period____

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

1) Center: $(4, 1)$
Radius: 5

$(x-4)^2+(y-1)^2=25$

2) Center: $(12, 14)$
Radius: $\sqrt{6}$

$(x-12)^2+(y-14)^2=6$

3) Center: $(6, -2)$
Circumference: 18π

$(x-6)^2+(y+2)^2=81$

4) Center: $(16, -7)$
Circumference: 6π

$(x-16)^2+(y+7)^2=9$

5) Center: $(4, 5)$
Area: 169π

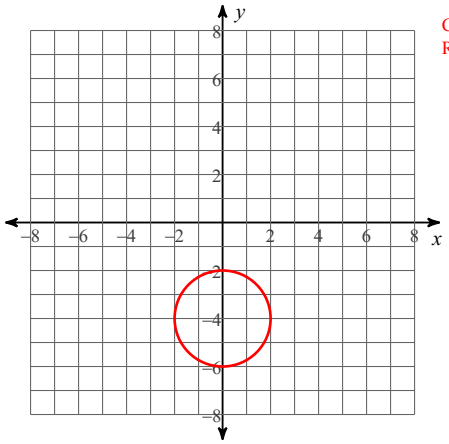
$(x-4)^2+(y-5)^2=169$

6) Center: $(-9, -4)$
Area: 49π

$(x+9)^2+(y+4)^2=49$

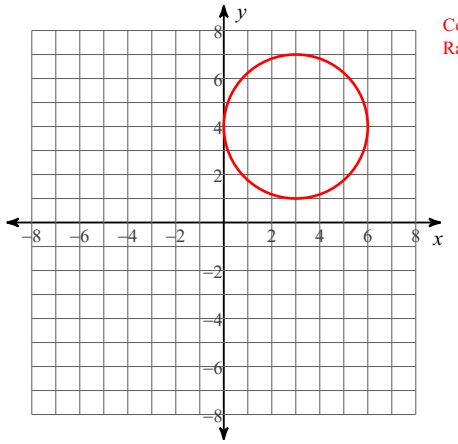
Identify the center and radius of each. Then sketch the graph.

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



Center: $(0, -4)$
Radius: 2

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



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

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

9) Center: $(-1, -17)$
Point on Circle: $(1, -17)$

$(x + 1)^2 + (y + 17)^2 = 4$

10) Ends of a diameter: $(-6, 5)$ and $(-16, -5)$

$(x + 11)^2 + y^2 = 50$

Identify the center and radius of each.

11) $x^2 + y^2 = -56 - 18x$

Center: $(-9, 0)$
Radius: 5

12) $-20x + x^2 + y^2 = -154 + 20y$

Center: $(10, 10)$
Radius: $\sqrt{46}$

13) $x^2 + y^2 + 2y = -22 - 10x$

Center: $(-5, -1)$
Radius: 2

14) $x^2 + y^2 + 6y = 14x - 9$

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

15) $32x + 10y = -y^2 - x^2 - 277$

Center: $(-16, -5)$
Radius: 2

16) $y^2 + 136 - 18y + x^2 = -16x$

Center: $(-8, 9)$
Radius: 3