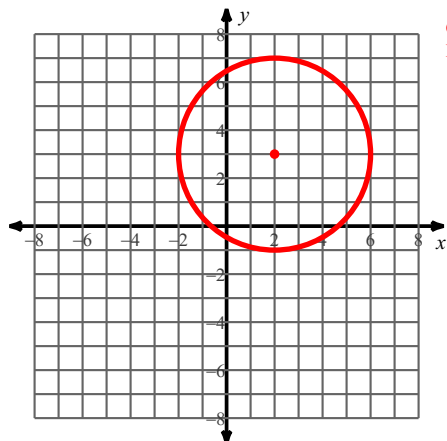


6.8 - Practice

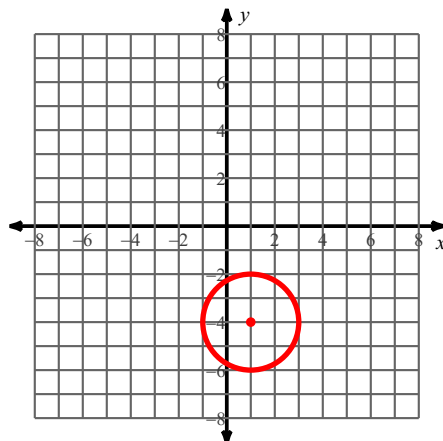
Identify the center and radius of each. Then sketch the graph.

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



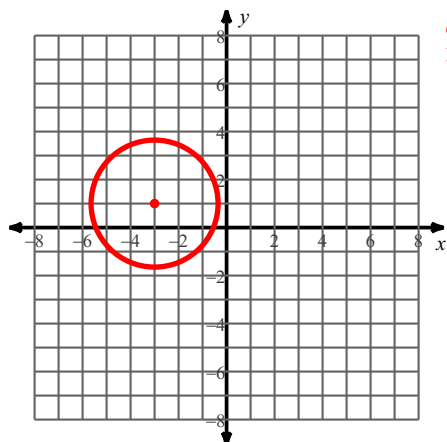
Center: (2, 3)
Radius: 4

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



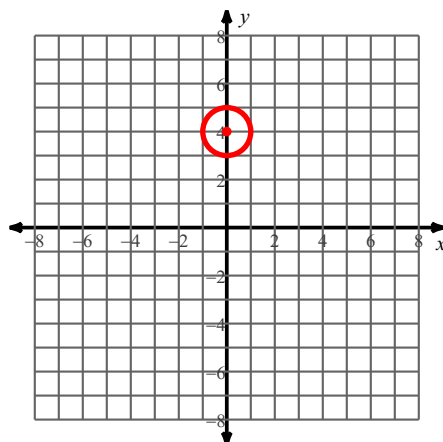
Center: (1, -4)
Radius: 2

3) $(x + 3)^2 + (y - 1)^2 = 7$



Center: (-3, 1)
Radius: $\sqrt{7}$

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



Center: (0, 4)
Radius: 1

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

5) Center: (14, 12)
Radius: 3

$(x - 14)^2 + (y - 12)^2 = 9$

6) Center: (-1, 2)
Radius: 12

$(x + 1)^2 + (y - 2)^2 = 144$

7) Center: (7, 3)
Area: 36π

$(x - 7)^2 + (y - 3)^2 = 36$

8) Center: (-13, -15)
Area: 9π

$(x + 13)^2 + (y + 15)^2 = 9$

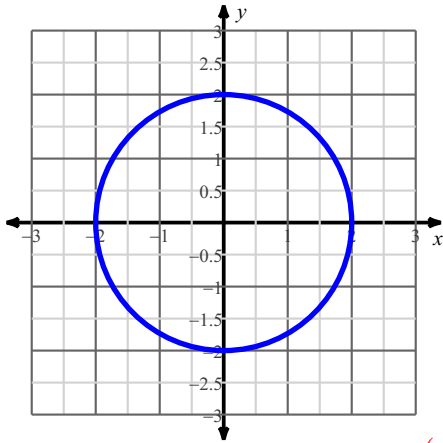
9) Center: (-4, 15)
Area: 16π

$(x + 4)^2 + (y - 15)^2 = 16$

10) Center: (15, -15)
Area: 3π

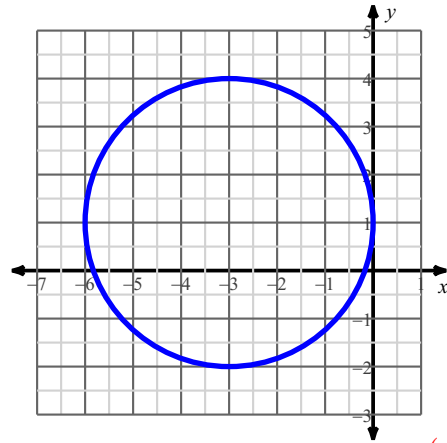
$(x - 15)^2 + (y + 15)^2 = 3$

11)



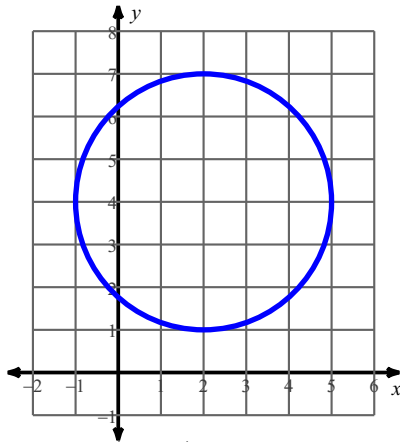
$$x^2 + y^2 = 4$$

12)



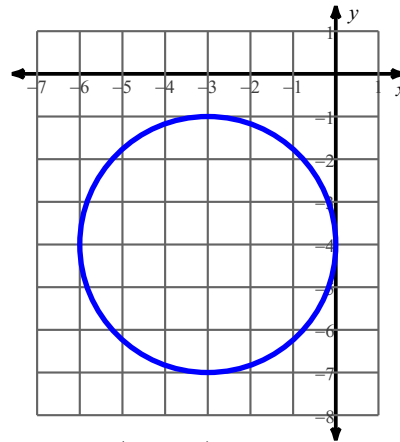
$$(x + 3)^2 + (y - 1)^2 = 9$$

13)



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

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

15) Center: $(8, -5)$ Circumference: 18π

$$(x - 8)^2 + (y + 5)^2 = 81$$

16) Center: $(6, -12)$ Circumference: 14π

$$(x - 6)^2 + (y + 12)^2 = 49$$

17) Center: $(-7, -7)$ Circumference: 16π

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

18) Center: $(14, -12)$ Circumference: 8π

$$(x - 14)^2 + (y + 12)^2 = 16$$

19) Center: $(-14, -4)$ Point on Circle: $(-18, -5)$

$$(x + 14)^2 + (y + 4)^2 = 17$$

20) Center: $(11, 11)$ Point on Circle: $(10, 4)$

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

21) Center: $(-1, 7)$ Point on Circle: $(-7, -3)$

$$(x + 1)^2 + (y - 7)^2 = 136$$

22) Center: $(17, 2)$ Point on Circle: $(16, 2)$

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