

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

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

2) Center:  $(3, 3)$   
Radius: 11

3) Center:  $(11, -12)$   
Radius: 5

4) Center:  $(13, 2)$   
Radius: 5

5) Center:  $\left(11, \frac{31}{2}\right)$   
Radius: 3

6) Center:  $(-2, -10)$   
Point on Circle:  $(-1, -13)$

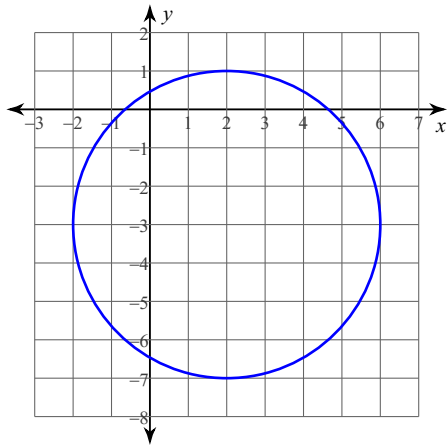
7) Center:  $(0, -12)$   
Point on Circle:  $(-1, -11)$

8) Center:  $(2, 3)$   
Point on Circle:  $(-11, 4)$

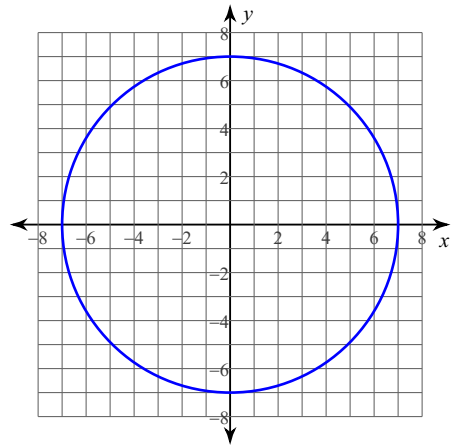
9) Center:  $(17, 3)$   
Point on Circle:  $(16, 2)$

10) Center:  $(-14, -8)$   
Point on Circle:  $(-16, -8)$

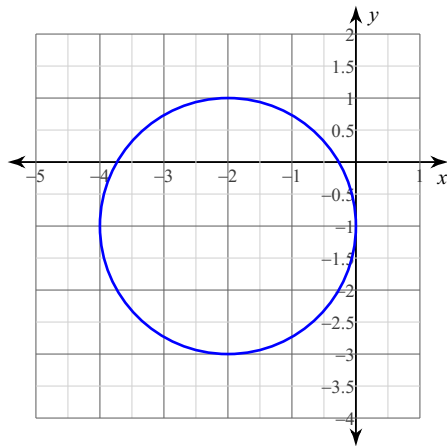
11)



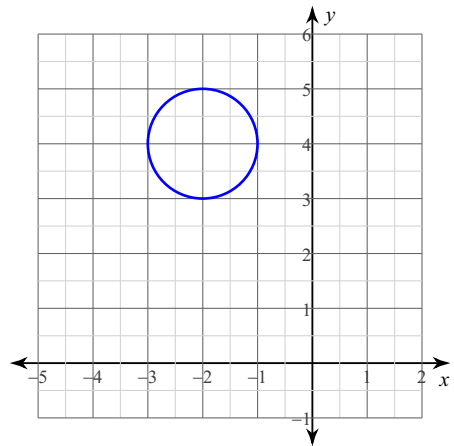
12)



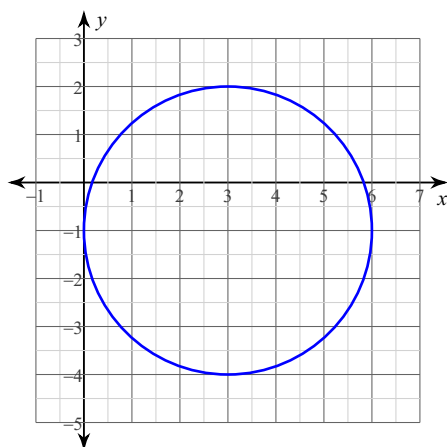
13)



14)



15)



## Answers to (ID: 1)

1)  $(x + 11)^2 + (y - 13)^2 = 25$

2)  $(x - 3)^2 + (y - 3)^2 = 121$

3)  $(x - 11)^2 + (y + 12)^2 = 25$

4)  $(x - 13)^2 + (y - 2)^2 = 25$

5)  $(x - 11)^2 + \left(y - \frac{31}{2}\right)^2 = 9$

6)  $(x + 2)^2 + (y + 10)^2 = 10$

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

8)  $(x - 2)^2 + (y - 3)^2 = 170$

9)  $(x - 17)^2 + (y - 3)^2 = 2$

10)  $(x + 14)^2 + (y + 8)^2 = 4$

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

12)  $x^2 + y^2 = 49$

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

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

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