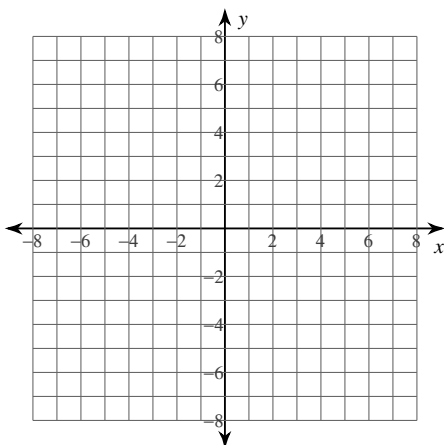


## Assignment

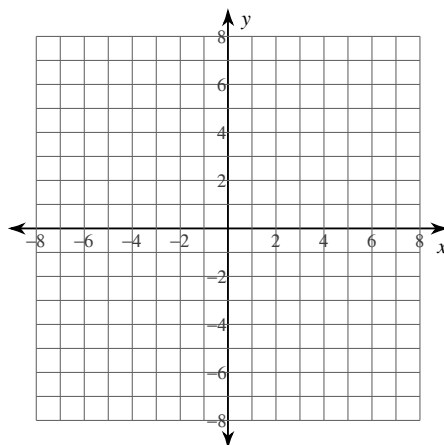
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**Identify the center and radius of each. Then sketch the graph.**

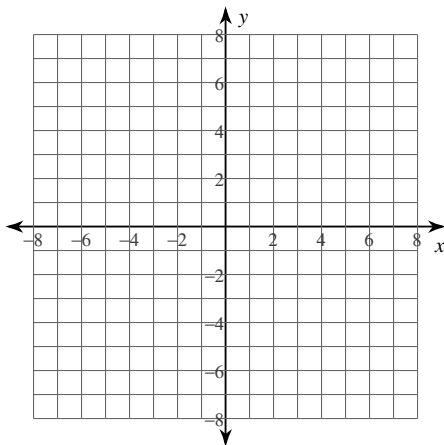
1)  $(x - 1)^2 + (y - 1)^2 = 9$



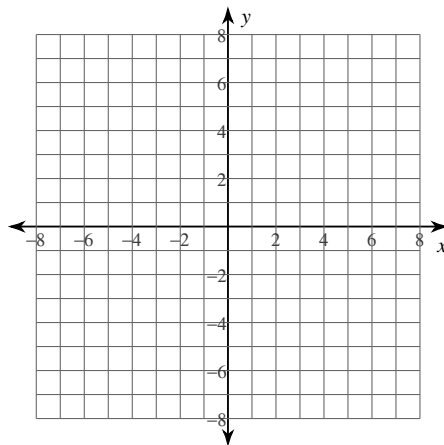
2)  $(x - 1)^2 + (y - 3)^2 = 5$



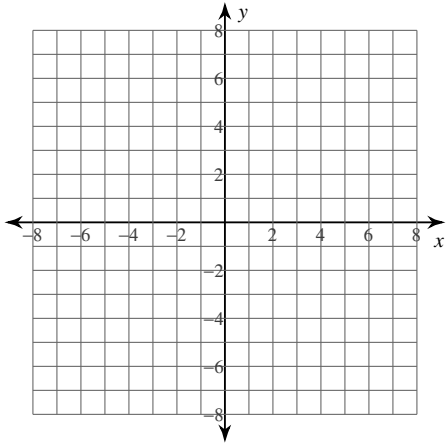
3)  $x^2 + (y - 2)^2 = 2$



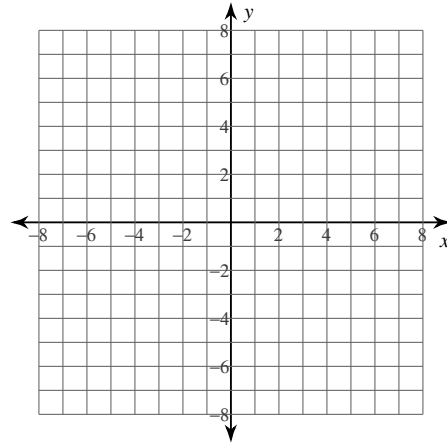
4)  $(x - 1)^2 + (y + 1)^2 = 4$



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



6)  $x^2 + (y + 4)^2 = 5$



**Use the information provided to write the standard form equation of each circle.**

7) Center:  $(-3, -1)$   
Radius: 7

8) Center:  $(12, -9)$   
Radius: 4

9) Center:  $(2, 2)$   
Radius: 8

10) Center:  $(-13, 11)$   
Radius: 3

11) Center:  $(-7, 14)$   
Radius: 3

12) Center:  $(7, 4)$   
Area:  $9\pi$

13) Center:  $(-2, 15)$   
Area:  $\pi$

14) Center:  $(13, 6)$   
Area:  $36\pi$

15) Center:  $(-16, -8)$   
Area:  $4\pi$

16) Center:  $(-11, -5)$   
Area:  $49\pi$

17) Center:  $(3, -15)$   
Circumference:  $2\pi$

18) Center:  $(-6, -4)$   
Circumference:  $4\pi$

19) Center:  $(8, -13)$   
Circumference:  $4\pi$

20) Center:  $(-15, 8)$   
Circumference:  $6\pi$

21) Center:  $(0, -1)$   
Circumference:  $24\pi$

22)  $(x + 8)^2 + (y + 16)^2 = 9$   
Translated 2 left, 3 down

23)  $(x - 1)^2 + (y - 4)^2 = 64$   
Translated 3 right, 5 up

24)  $(x - 11)^2 + (y + 11)^2 = 49$   
Translated 4 left, 1 up

25)  $(x + 11)^2 + (y + 4)^2 = 9$   
Translated 1 left, 2 up

26)  $(x - 12)^2 + (y - 10)^2 = 9$   
Translated 5 left, 5 down

$$27) x^2 + y^2 + 6x + 2y - 54 = 0$$

$$28) x^2 + y^2 + 24x + 12y + 131 = 0$$

$$29) x^2 + y^2 + 12x - 14y + 76 = 0$$

$$30) x^2 + y^2 - 20x + 12y + 55 = 0$$

$$31) x^2 + y^2 - 14x - 8y + 61 = 0$$

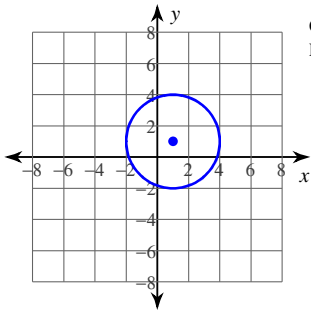
$$32) x^2 + y^2 - 2x + 22y + 86 = 0$$

$$33) x^2 + y^2 + 18x + 32y + 336 = 0$$

$$34) x^2 + y^2 - 8x - 26y + 181 = 0$$

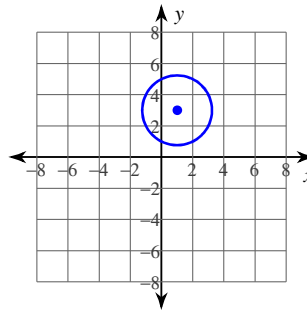
# Answers to Assignment (ID: 1)

1)



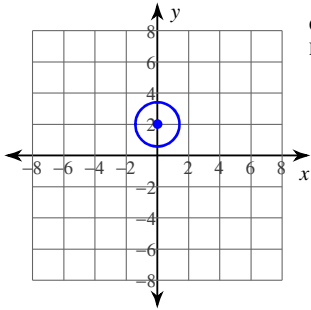
Center: (1, 1)  
Radius: 3

2)



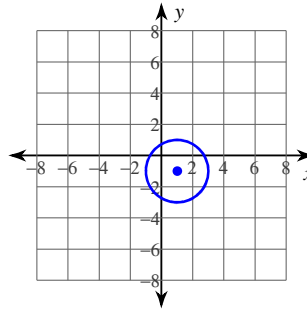
Center: (1, 3)  
Radius:  $\sqrt{5}$

3)



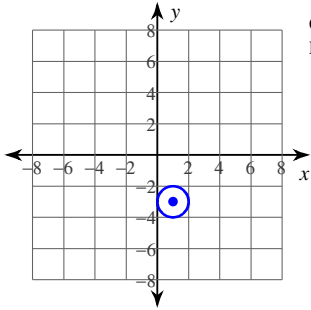
Center: (0, 2)  
Radius:  $\sqrt{2}$

4)



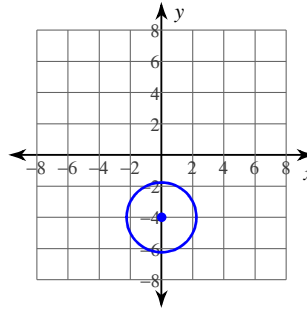
Center: (1, -1)  
Radius: 2

5)



Center: (1, -3)  
Radius: 1

6)



Center: (0, -4)  
Radius:  $\sqrt{5}$

7)  $(x + 3)^2 + (y + 1)^2 = 49$

10)  $(x + 13)^2 + (y - 11)^2 = 9$

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

16)  $(x + 11)^2 + (y + 5)^2 = 49$

19)  $(x - 8)^2 + (y + 13)^2 = 4$

22)  $(x + 10)^2 + (y + 19)^2 = 9$

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

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

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

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

8)  $(x - 12)^2 + (y + 9)^2 = 16$

11)  $(x + 7)^2 + (y - 14)^2 = 9$

14)  $(x - 13)^2 + (y - 6)^2 = 36$

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

20)  $(x + 15)^2 + (y - 8)^2 = 9$

23)  $(x - 4)^2 + (y - 9)^2 = 64$

26)  $(x - 7)^2 + (y - 5)^2 = 9$

29)  $(x + 6)^2 + (y - 7)^2 = 9$

32)  $(x - 1)^2 + (y + 11)^2 = 36$

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

12)  $(x - 7)^2 + (y - 4)^2 = 9$

15)  $(x + 16)^2 + (y + 8)^2 = 4$

18)  $(x + 6)^2 + (y + 4)^2 = 4$

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

24)  $(x - 7)^2 + (y + 10)^2 = 49$

27)  $(x + 3)^2 + (y + 1)^2 = 64$

30)  $(x - 10)^2 + (y + 6)^2 = 81$

33)  $(x + 9)^2 + (y + 16)^2 = 1$