

## Assignment

Date \_\_\_\_\_ Period \_\_\_\_\_

**Find the distance between each pair of points. Round your answer to the nearest tenth, if necessary.**

1)  $(4, 5), (-3, -3)$

2)  $(6, -5), (0, 3)$

3)  $(4, 4), (-5, 1)$

4)  $(5, -1), (8, 7)$

5)  $(2, 5), (7, -3)$

6)  $(0, 2), (5, 0)$

7)  $(-1, 6), (1, -5)$

8)  $(-7, 6), (-4, -3)$

9)  $(2, 5), (0, 8)$

10)  $(-7, 2), (-4, -2)$

11)  $(-2, 0), (-5, 1)$

12)  $(1, -3), (-3, -8)$

13)  $(4, 6), (1, 0)$

14)  $(-6, -4), (7, -2)$

15)  $(6, 1), (0, 4)$

16)  $(3, 0), (-3, 6)$

17)  $(7, -2), (-2, 8)$

18)  $(7, -7), (-3, 6)$

19)  $(2, 6), (-3, 8)$

20)  $(5, 1), (1, -4)$

**Find the midpoint of the line segment with the given endpoints.**

21)  $(-3, -9), (-2, -7)$

22)  $(3, 1), (0, 3)$

23)  $(8, 4), (-1, -6)$

24)  $(5, -6), (0, -4)$

25)  $(-6, 8), (4, -1)$

26)  $(-4, -2), (9, 5)$

27)  $(-4, -8), (8, 8)$

28)  $(5, -10), (8, 4)$

29)  $(-6, -3), (-2, -6)$

30)  $(9, 9), (4, -6)$

31)  $(-3, -2), (4, 0)$

32)  $(6, 3), (6, -2)$

33)  $(5, -8), (6, -3)$

34)  $(4, 4), (0, -2)$

35)  $(-3, 4), (0, -2)$

36)  $(-9, 0), (-6, -7)$

37)  $(2, -3), (9, -5)$

38)  $(5, -10), (2, -4)$

39)  $(4, -1), (-6, -3)$

40)  $(-6, -8), (-10, -3)$

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

41) Center:  $(12, 0)$   
Radius: 5

42) Center:  $(9, 4)$   
Radius: 6

43) Center:  $(-7, 9)$   
Radius: 3

44) Center:  $(-10, -3)$   
Radius: 6

45) Center:  $(-15, -8)$   
Radius: 2

46) Center:  $(16, -10)$   
Radius: 3

47) Center:  $(-14, 11)$   
Radius: 5

48) Center:  $(8, -15)$   
Radius: 4

49) Center:  $(3, -13)$   
Radius: 4

50) Center:  $(-7, 12)$   
Radius: 5

51) Center:  $(-14, -16)$   
Radius: 3

52) Center:  $(15, 15)$   
Radius: 3

53) Center:  $(1, 3)$   
Radius: 13

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

55) Center:  $(-6, -10)$   
Radius: 7

56) Center:  $(-1, 11)$   
Radius: 3

57) Center:  $(-2, 12)$   
Radius: 5

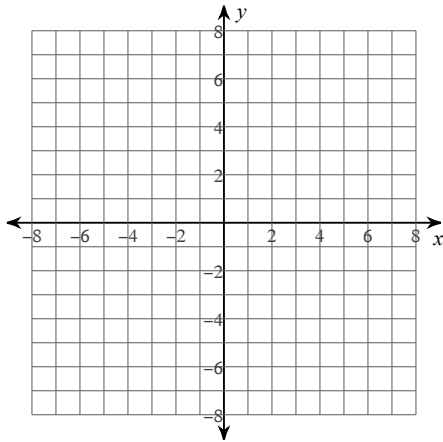
58) Center:  $(2, -1)$   
Radius: 11

59) Center:  $(11, -11)$   
Radius: 6

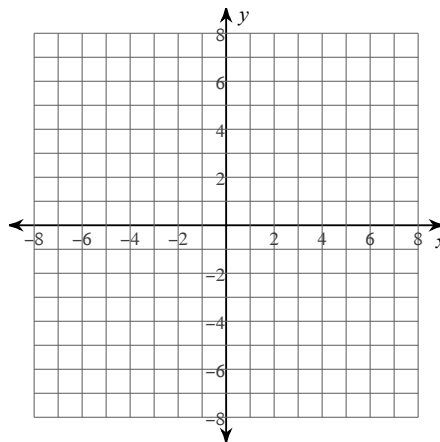
60) Center:  $(16, -10)$   
Radius: 2

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

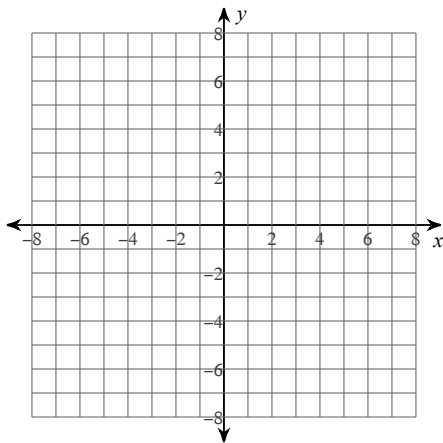
61)  $8y + 15 + y^2 = -x^2$



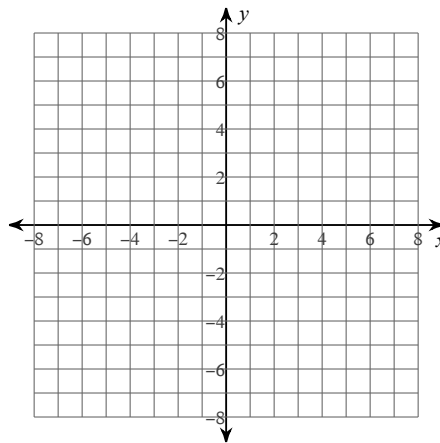
62)  $\left(x + \frac{7}{2}\right)^2 + (y - 3)^2 = 8$



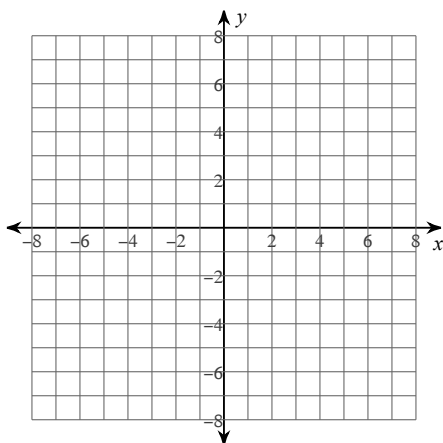
63)  $x^2 + y^2 - 8 = 0$



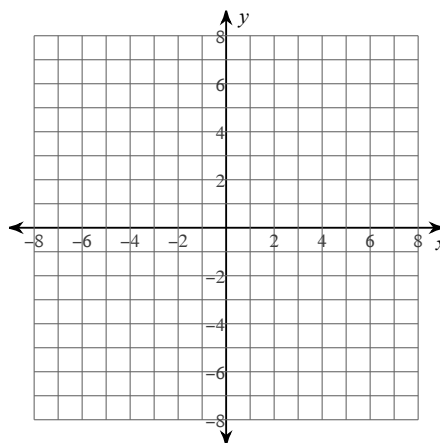
64)  $-4y + x^2 = -y^2 + 2x + 4$



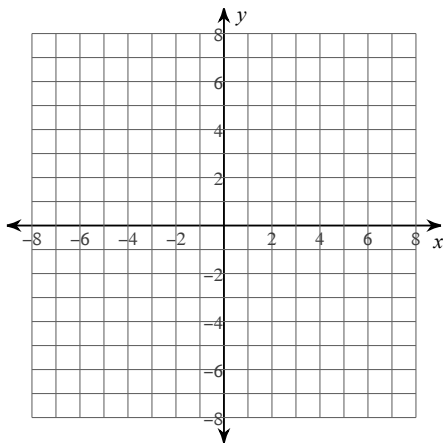
65)  $y^2 + x^2 = -15 - 8x$



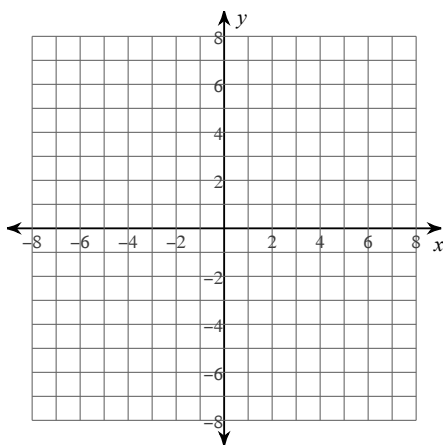
66)  $y^2 - 4y - 2x + x^2 = 11$



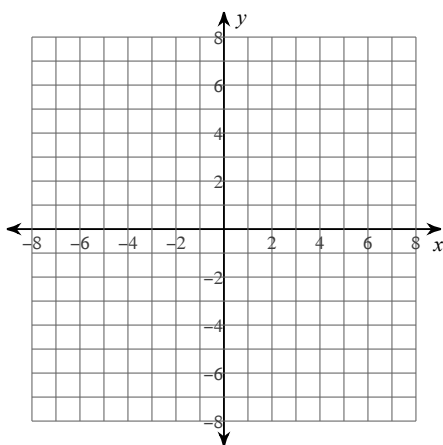
$$67) x^2 + 2y = -2x - 1 - y^2$$



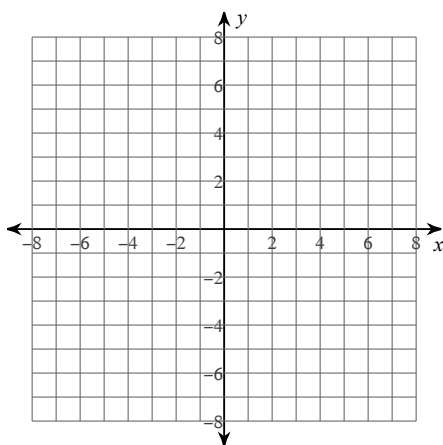
$$68) 2y^2 + 2x^2 - 10y = 14x - 31$$



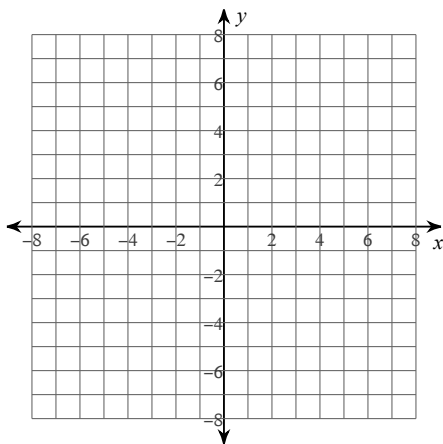
$$69) 0 = -y^2 - 4x + 8y - 11 - x^2$$



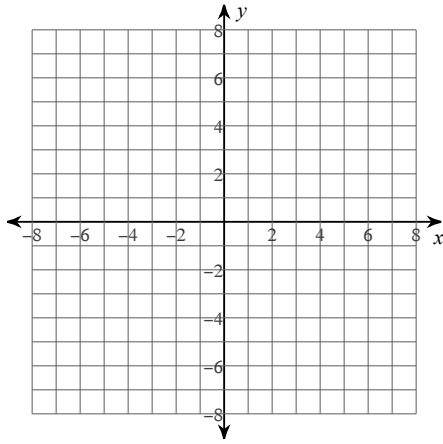
$$70) -2x + y^2 + x^2 = 4 - 4y$$



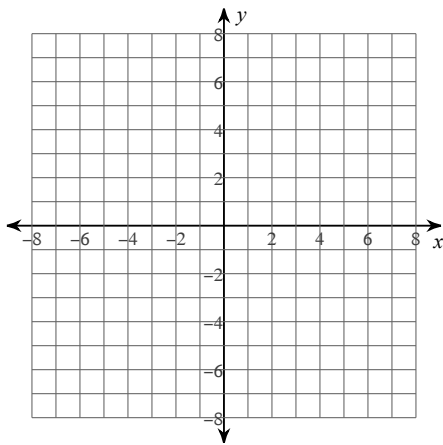
$$71) x^2 - 4x = -y^2 - 16 + 2y\sqrt{15}$$



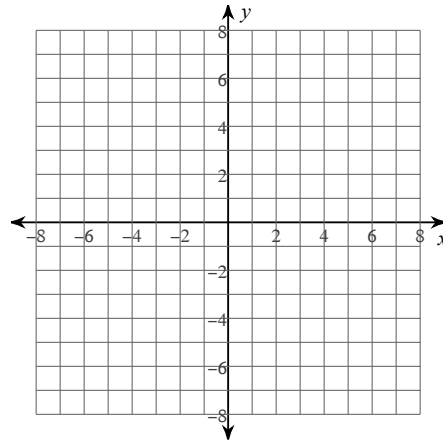
$$72) -2x + 2y - 12 + x^2 + y^2 = 0$$



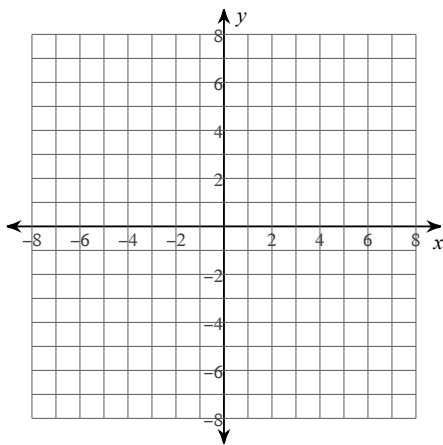
73)  $(x + 4)^2 + y^2 = 4$



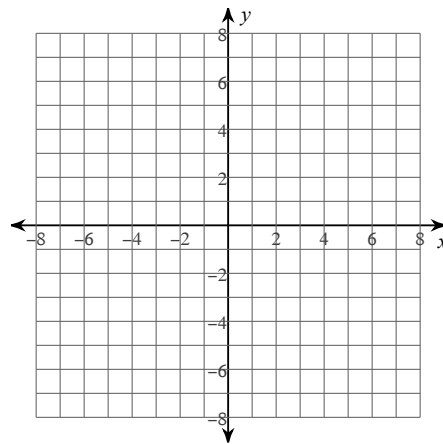
74)  $-24y = -4x^2 - 4y^2 - 20x - 29$



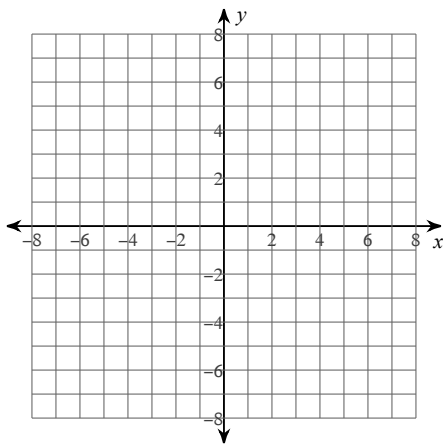
75)  $-6y + 17 = -y^2 - x^2 + 6x$



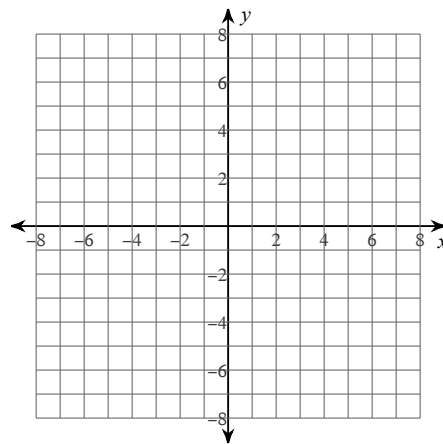
76)  $(x - \sqrt{5})^2 + (y + 1)^2 = 9$



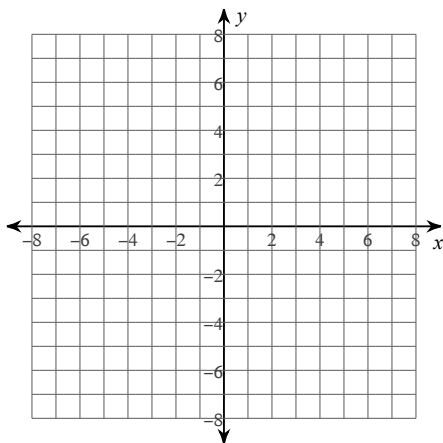
77)  $y^2 + 6y + 4x = -2 - x^2$



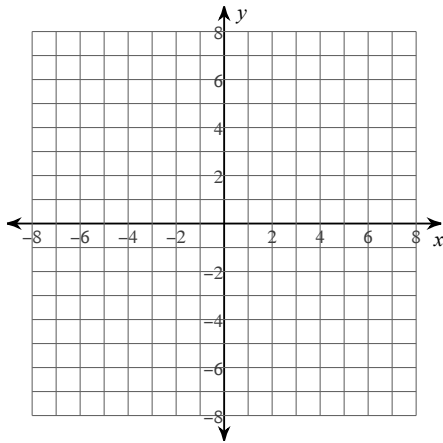
78)  $x^2 - 4y = -8x - y^2 - 16$



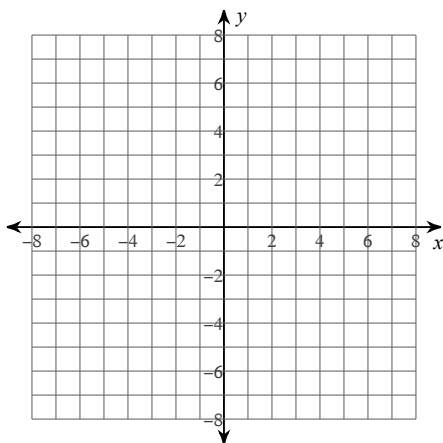
$$79) 0 = -4x^2 - 53 - 32y - 20x - 4y^2$$



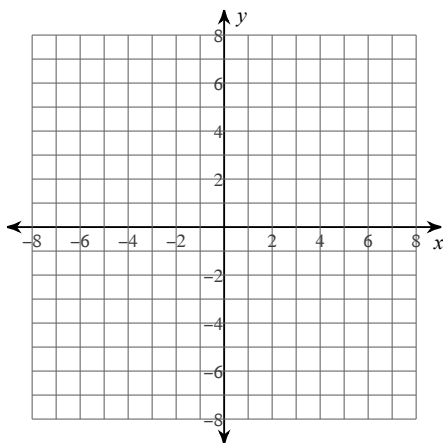
$$80) y^2 = -8y + 4x - 16 - x^2$$



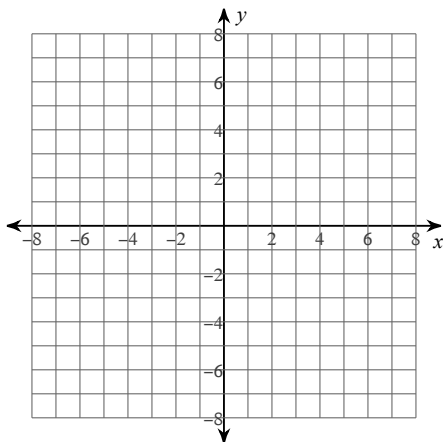
$$81) 9 + y^2 + 6y + 6x = -x^2$$



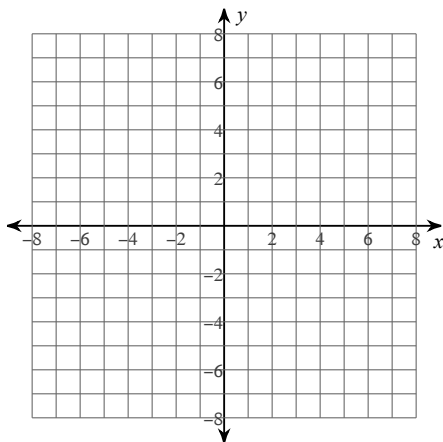
$$82) y^2 - 4x = -x^2$$



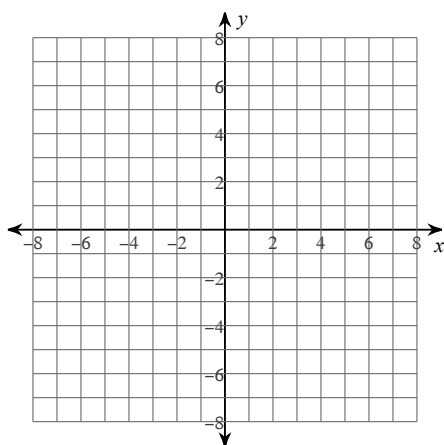
$$83) 9 - 8x = -y^2 - x^2$$



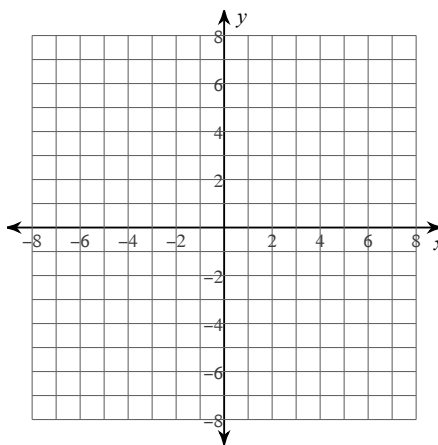
$$84) 16 + y^2 + x^2 = 8x + 2y$$



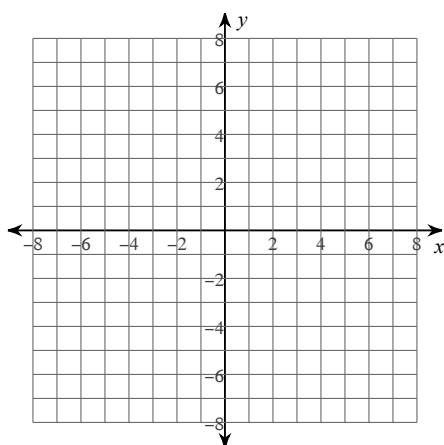
$$85) (x + 3)^2 + (y + 3)^2 = 12$$



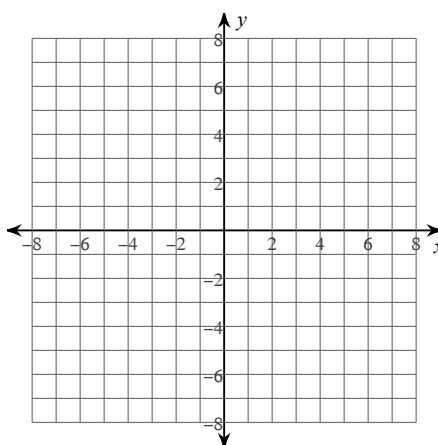
$$86) y^2 + 8x = -31 - 8y - x^2$$



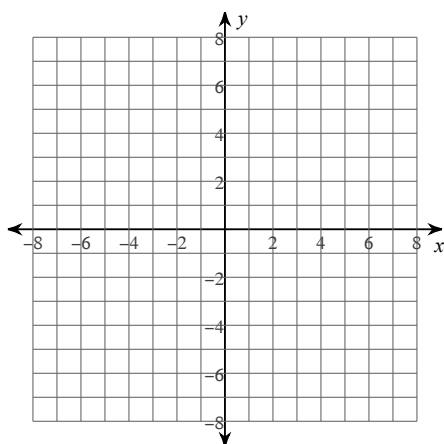
$$87) x^2 + 8y + y^2 + 23 - 8x = 0$$



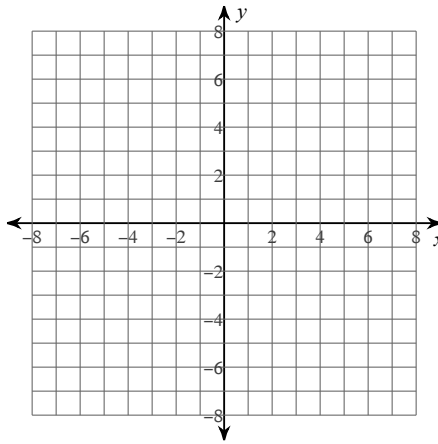
$$88) 4 + y^2 = 4y - x^2 - 6x$$



$$89) (x + 1)^2 + (y - 2)^2 = 5$$



$$90) -12 + x^2 = 4y - y^2$$





## Assignment

Date \_\_\_\_\_ Period \_\_\_\_\_

**Find the distance between each pair of points. Round your answer to the nearest tenth, if necessary.**

1)  $(4, 5), (-3, -3)$

10.6

2)  $(6, -5), (0, 3)$

10

3)  $(4, 4), (-5, 1)$

9.5

4)  $(5, -1), (8, 7)$

8.5

5)  $(2, 5), (7, -3)$

9.4

6)  $(0, 2), (5, 0)$

5.4

7)  $(-1, 6), (1, -5)$

11.2

8)  $(-7, 6), (-4, -3)$

9.5

9)  $(2, 5), (0, 8)$

3.6

10)  $(-7, 2), (-4, -2)$

5

11)  $(-2, 0), (-5, 1)$

3.2

12)  $(1, -3), (-3, -8)$

6.4

13)  $(4, 6), (1, 0)$

6.7

14)  $(-6, -4), (7, -2)$

13.2

15)  $(6, 1), (0, 4)$

6.7

16)  $(3, 0), (-3, 6)$

8.5

17)  $(7, -2), (-2, 8)$

13.5

18)  $(7, -7), (-3, 6)$

16.4

19)  $(2, 6), (-3, 8)$

5.4

20)  $(5, 1), (1, -4)$

6.4

**Find the midpoint of the line segment with the given endpoints.**

21)  $(-3, -9), (-2, -7)$

 $(-2.5, -8)$ 

22)  $(3, 1), (0, 3)$

 $(1.5, 2)$ 

23)  $(8, 4), (-1, -6)$

 $(3.5, -1)$ 

24)  $(5, -6), (0, -4)$

 $(2.5, -5)$ 

25)  $(-6, 8), (4, -1)$

 $(-1, 3.5)$ 

26)  $(-4, -2), (9, 5)$

 $(2.5, 1.5)$ 

27)  $(-4, -8), (8, 8)$

 $(2, 0)$ 

28)  $(5, -10), (8, 4)$

 $(6.5, -3)$

29)  $(-6, -3), (-2, -6)$   
 $(-4, -4.5)$

30)  $(9, 9), (4, -6)$   
 $(6.5, 1.5)$

31)  $(-3, -2), (4, 0)$   
 $(0.5, -1)$

32)  $(6, 3), (6, -2)$   
 $(6, 0.5)$

33)  $(5, -8), (6, -3)$   
 $(5.5, -5.5)$

34)  $(4, 4), (0, -2)$   
 $(2, 1)$

35)  $(-3, 4), (0, -2)$   
 $(-1.5, 1)$

36)  $(-9, 0), (-6, -7)$   
 $(-7.5, -3.5)$

37)  $(2, -3), (9, -5)$   
 $(5.5, -4)$

38)  $(5, -10), (2, -4)$   
 $(3.5, -7)$

39)  $(4, -1), (-6, -3)$   
 $(-1, -2)$

40)  $(-6, -8), (-10, -3)$   
 $(-8, -5.5)$

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

41) Center:  $(12, 0)$   
Radius: 5  
 $(x - 12)^2 + y^2 = 25$

42) Center:  $(9, 4)$   
Radius: 6  
 $(x - 9)^2 + (y - 4)^2 = 36$

43) Center:  $(-7, 9)$   
Radius: 3  
 $(x + 7)^2 + (y - 9)^2 = 9$

44) Center:  $(-10, -3)$   
Radius: 6  
 $(x + 10)^2 + (y + 3)^2 = 36$

45) Center:  $(-15, -8)$   
Radius: 2  
 $(x + 15)^2 + (y + 8)^2 = 4$

46) Center:  $(16, -10)$   
Radius: 3  
 $(x - 16)^2 + (y + 10)^2 = 9$

47) Center:  $(-14, 11)$   
Radius: 5

$$(x + 14)^2 + (y - 11)^2 = 25$$

48) Center:  $(8, -15)$   
Radius: 4

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

49) Center:  $(3, -13)$   
Radius: 4

$$(x - 3)^2 + (y + 13)^2 = 16$$

50) Center:  $(-7, 12)$   
Radius: 5

$$(x + 7)^2 + (y - 12)^2 = 25$$

51) Center:  $(-14, -16)$   
Radius: 3

$$(x + 14)^2 + (y + 16)^2 = 9$$

52) Center:  $(15, 15)$   
Radius: 3

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

53) Center:  $(1, 3)$   
Radius: 13

$$(x - 1)^2 + (y - 3)^2 = 169$$

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

$$(x + 14)^2 + (y - 3)^2 = 1$$

55) Center:  $(-6, -10)$   
Radius: 7

$$(x + 6)^2 + (y + 10)^2 = 49$$

56) Center:  $(-1, 11)$   
Radius: 3

$$(x + 1)^2 + (y - 11)^2 = 9$$

57) Center:  $(-2, 12)$   
Radius: 5

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

58) Center:  $(2, -1)$   
Radius: 11

$$(x - 2)^2 + (y + 1)^2 = 121$$

59) Center:  $(11, -11)$   
Radius: 6

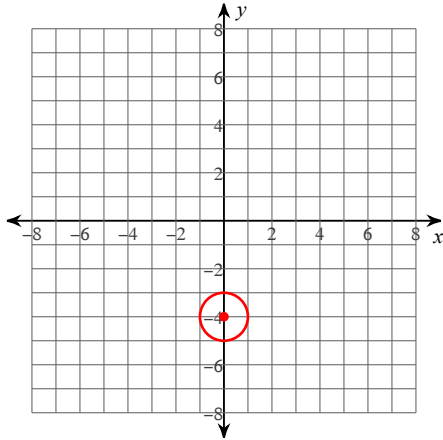
$$(x - 11)^2 + (y + 11)^2 = 36$$

60) Center:  $(16, -10)$   
Radius: 2

$$(x - 16)^2 + (y + 10)^2 = 4$$

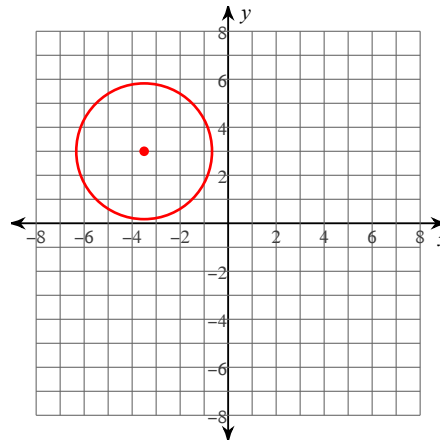
Identify the center and radius of each. Then sketch the graph.

61)  $8y + 15 + y^2 = -x^2$



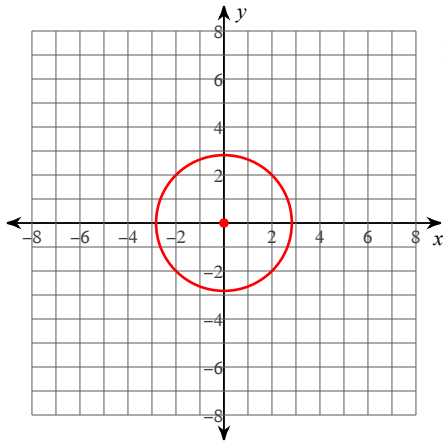
Center: (0, -4)  
Radius: 1

62)  $\left(x + \frac{7}{2}\right)^2 + (y - 3)^2 = 8$



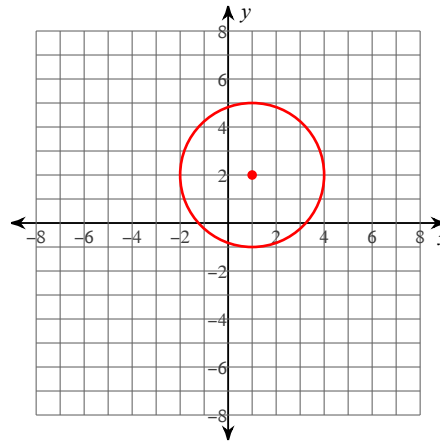
Center:  $\left(-\frac{7}{2}, 3\right)$   
Radius:  $2\sqrt{2}$

63)  $x^2 + y^2 - 8 = 0$



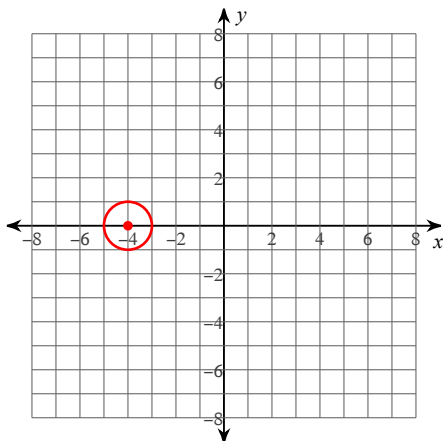
Center: (0, 0)  
Radius:  $2\sqrt{2}$

64)  $-4y + x^2 = -y^2 + 2x + 4$



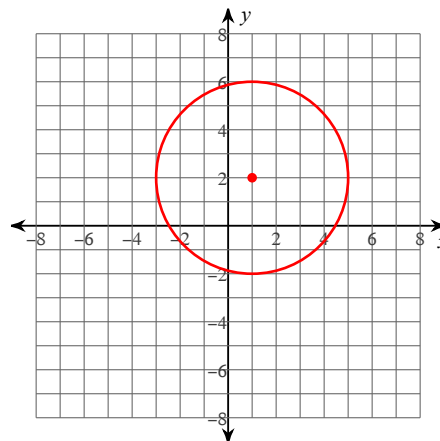
Center: (1, 2)  
Radius: 3

65)  $y^2 + x^2 = -15 - 8x$



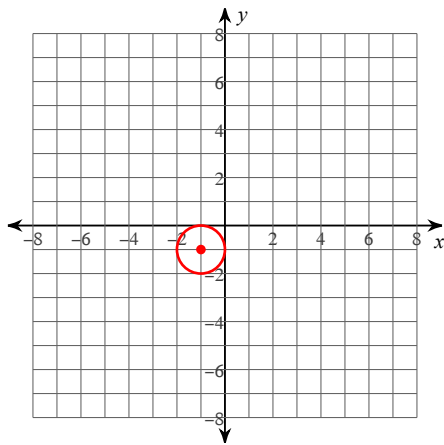
Center: (-4, 0)  
Radius: 1

66)  $y^2 - 4y - 2x + x^2 = 11$



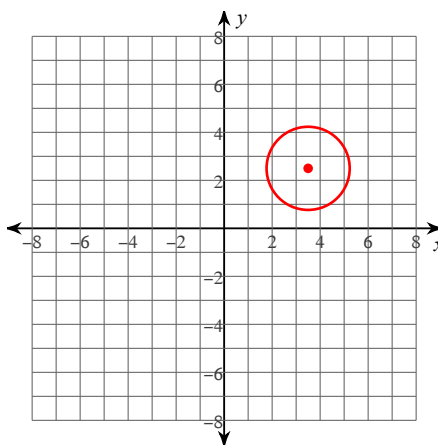
Center: (1, 2)  
Radius: 4

67)  $x^2 + 2y = -2x - 1 - y^2$



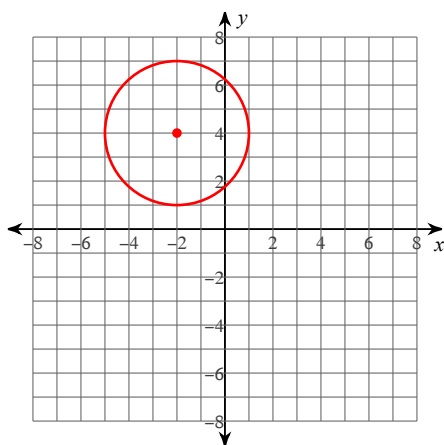
Center:  $(-1, -1)$   
Radius: 1

68)  $2y^2 + 2x^2 - 10y = 14x - 31$



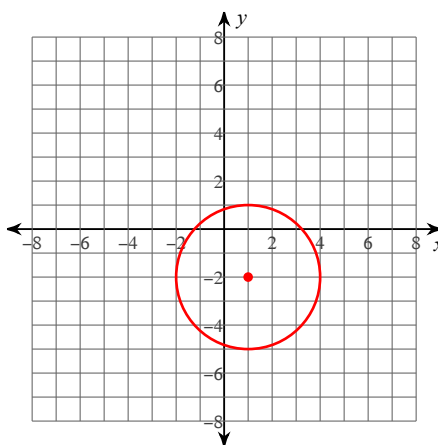
Center:  $(\frac{7}{2}, \frac{5}{2})$   
Radius:  $\sqrt{3}$

69)  $0 = -y^2 - 4x + 8y - 11 - x^2$



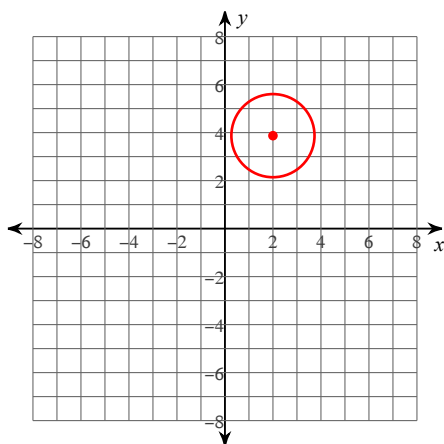
Center:  $(-2, 4)$   
Radius: 3

70)  $-2x + y^2 + x^2 = 4 - 4y$



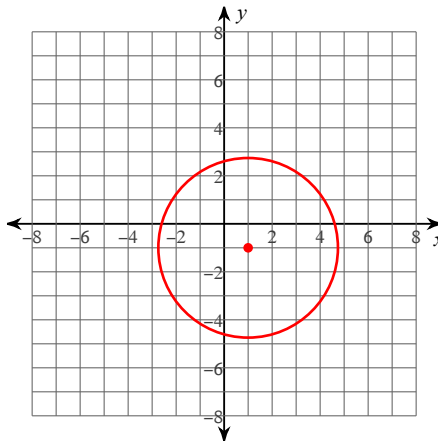
Center:  $(1, -2)$   
Radius: 3

71)  $x^2 - 4x = -y^2 - 16 + 2y\sqrt{15}$



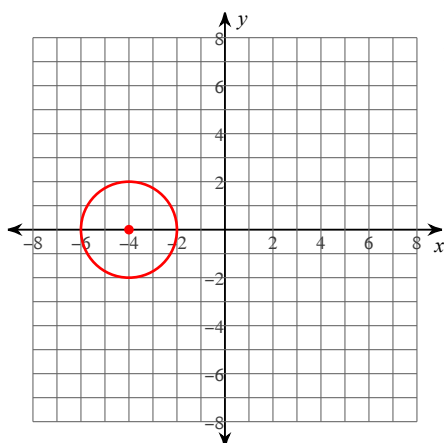
Center:  $(2, \sqrt{15})$   
Radius:  $\sqrt{3}$

72)  $-2x + 2y - 12 + x^2 + y^2 = 0$



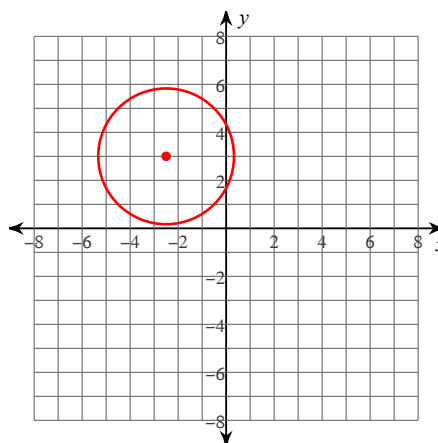
Center:  $(1, -1)$   
Radius:  $\sqrt{14}$

$$73) (x + 4)^2 + y^2 = 4$$



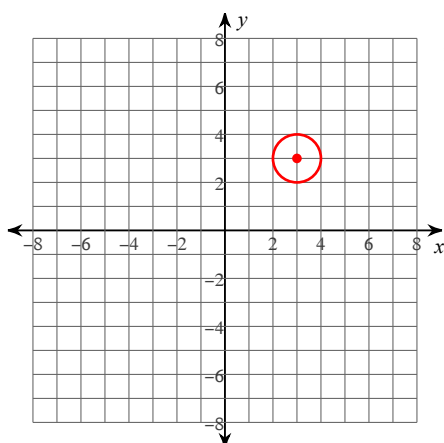
Center:  $(-4, 0)$   
Radius: 2

$$74) -24y = -4x^2 - 4y^2 - 20x - 29$$



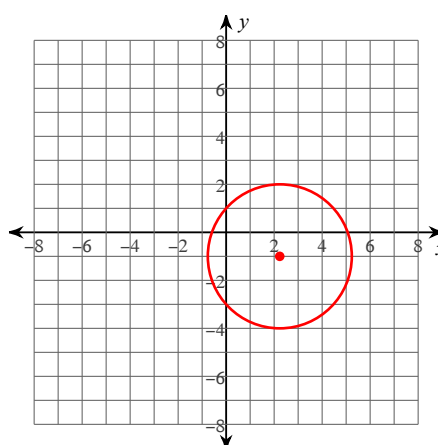
Center:  $(-\frac{5}{2}, 3)$   
Radius:  $2\sqrt{2}$

$$75) -6y + 17 = -y^2 - x^2 + 6x$$



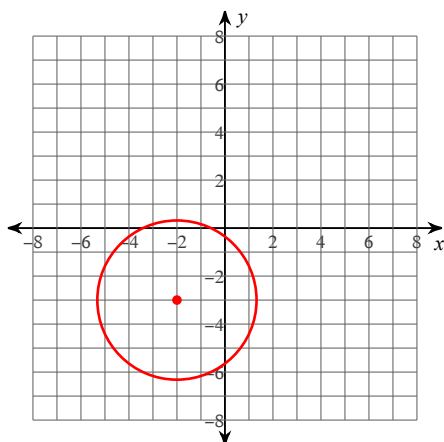
Center:  $(3, 3)$   
Radius: 1

$$76) (x - \sqrt{5})^2 + (y + 1)^2 = 9$$



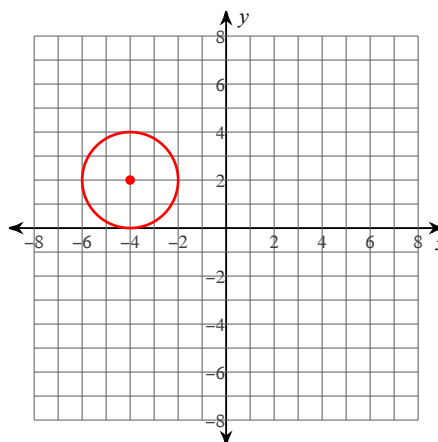
Center:  $(\sqrt{5}, -1)$   
Radius: 3

$$77) y^2 + 6y + 4x = -2 - x^2$$



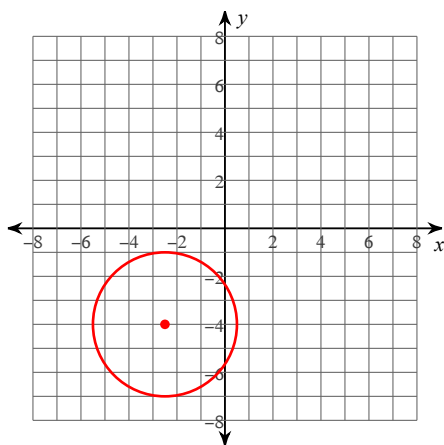
Center:  $(-2, -3)$   
Radius:  $\sqrt{11}$

$$78) x^2 - 4y = -8x - y^2 - 16$$



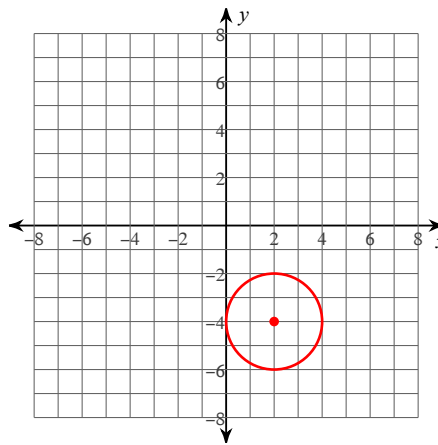
Center:  $(-4, 2)$   
Radius: 2

$$79) 0 = -4x^2 - 53 - 32y - 20x - 4y^2$$



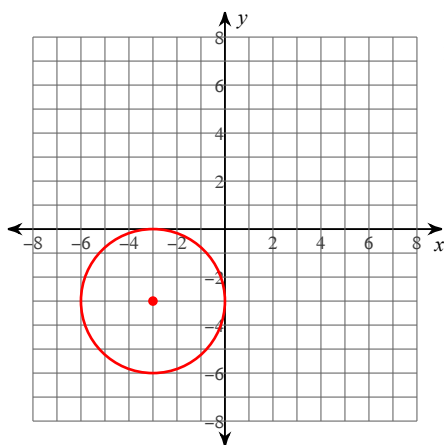
Center:  $(-\frac{5}{2}, -4)$   
Radius: 3

$$80) y^2 = -8y + 4x - 16 - x^2$$



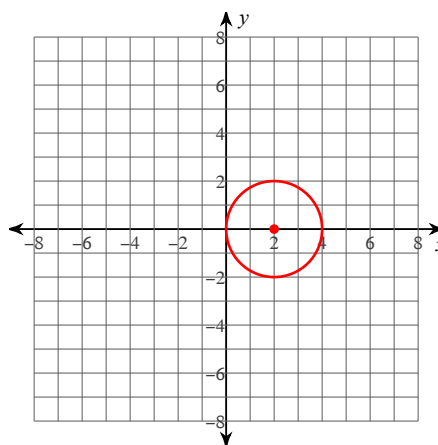
Center: (2, -4)  
Radius: 2

$$81) 9 + y^2 + 6y + 6x = -x^2$$



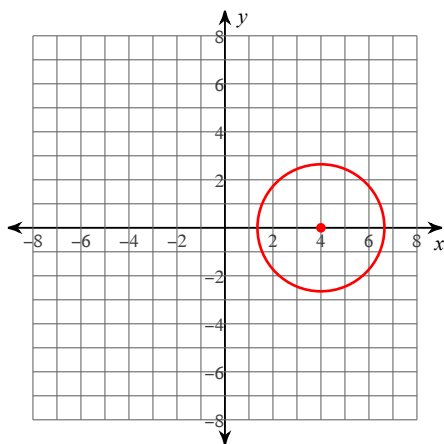
Center: (-3, -3)  
Radius: 3

$$82) y^2 - 4x = -x^2$$



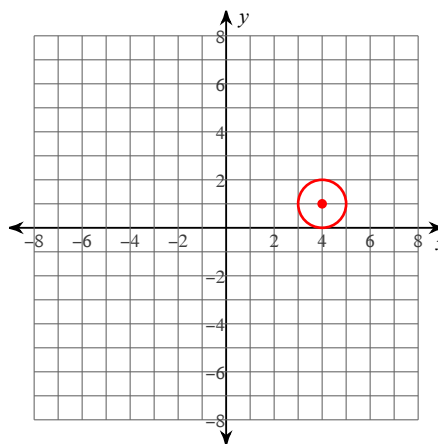
Center: (2, 0)  
Radius: 2

$$83) 9 - 8x = -y^2 - x^2$$



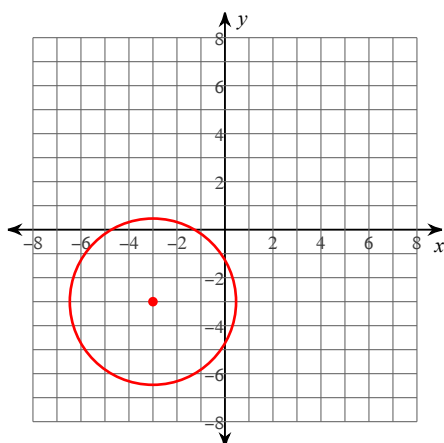
Center: (4, 0)  
Radius:  $\sqrt{7}$

$$84) 16 + y^2 + x^2 = 8x + 2y$$



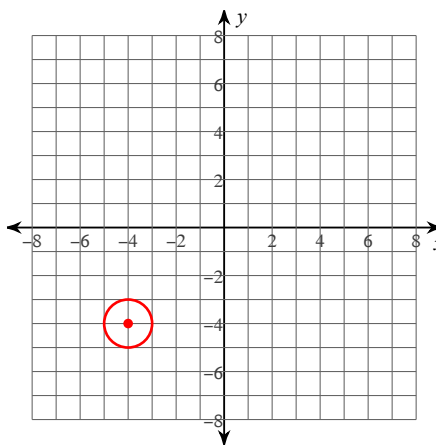
Center: (4, 1)  
Radius: 1

$$85) (x + 3)^2 + (y + 3)^2 = 12$$



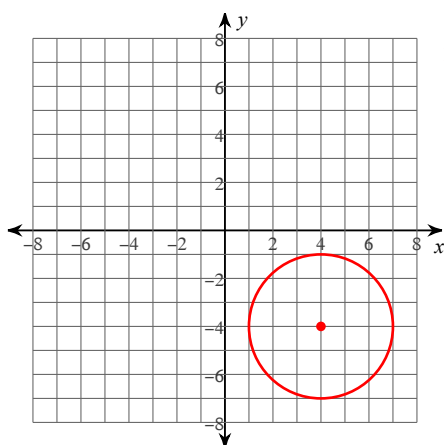
Center:  $(-3, -3)$   
Radius:  $2\sqrt{3}$

$$86) y^2 + 8x = -31 - 8y - x^2$$



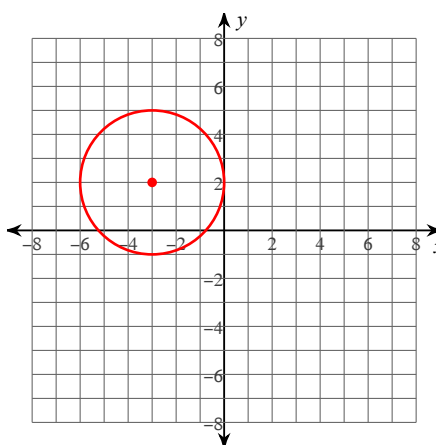
Center:  $(-4, -4)$   
Radius: 1

$$87) x^2 + 8y + y^2 + 23 - 8x = 0$$



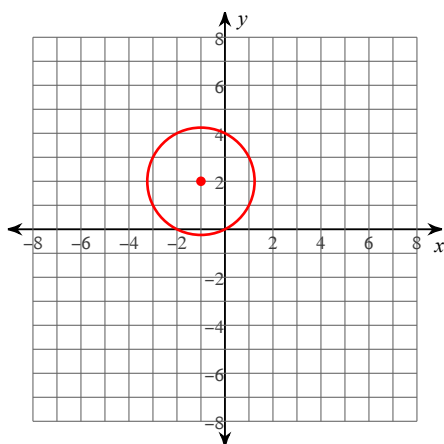
Center:  $(4, -4)$   
Radius: 3

$$88) 4 + y^2 = 4y - x^2 - 6x$$



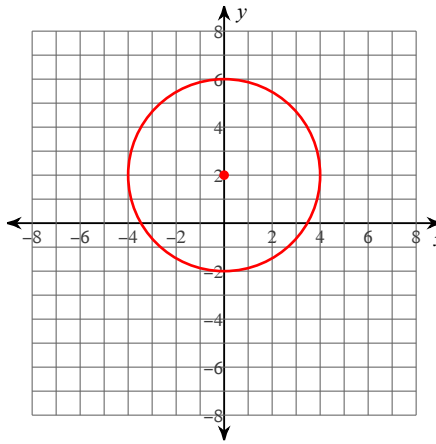
Center:  $(-3, 2)$   
Radius: 3

$$89) (x + 1)^2 + (y - 2)^2 = 5$$



Center:  $(-1, 2)$   
Radius:  $\sqrt{5}$

$$90) -12 + x^2 = 4y - y^2$$



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