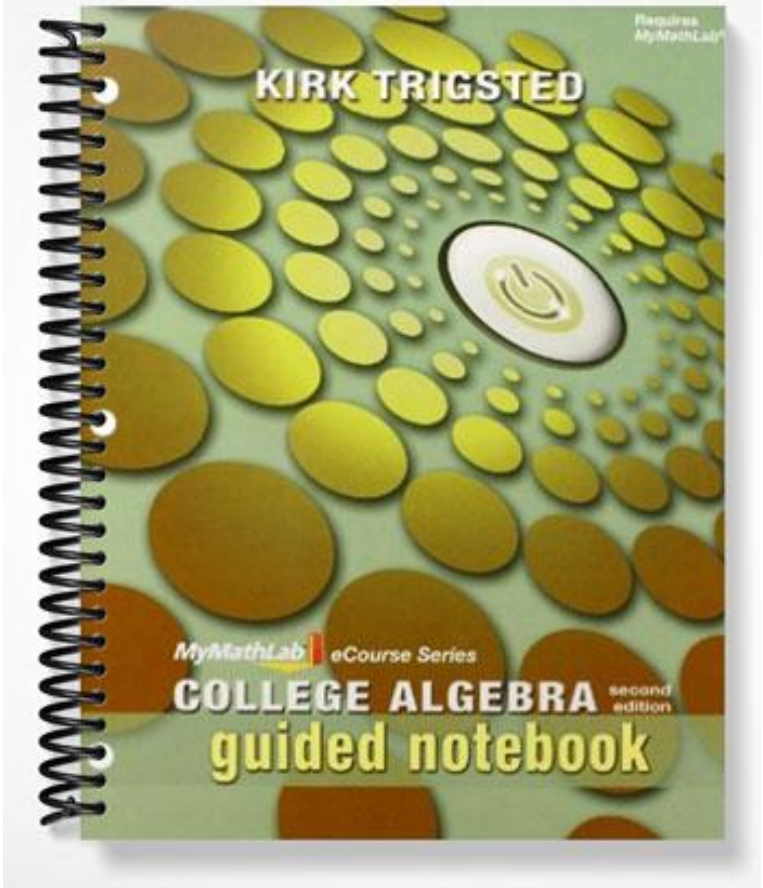
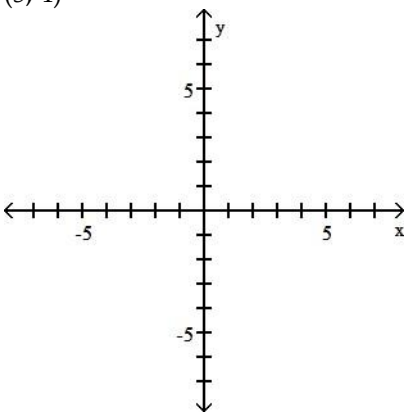
TEST BANK

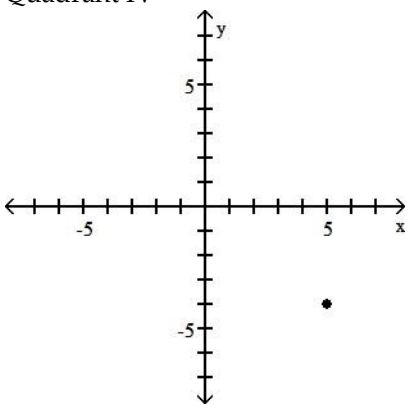

Requires MyMathLab®
KIRK TRIGSTED
MyMathLab eCourse Series
COLLEGE ALGEBRA second edition
guided notebook

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.
Plot the ordered pair in the Cartesian plane, and state in which quadrant or on which axis it lies.

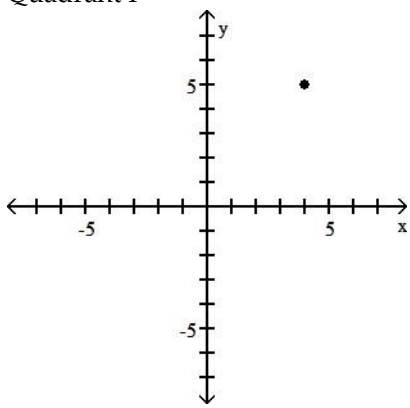
1) (5, 4) 1) _____



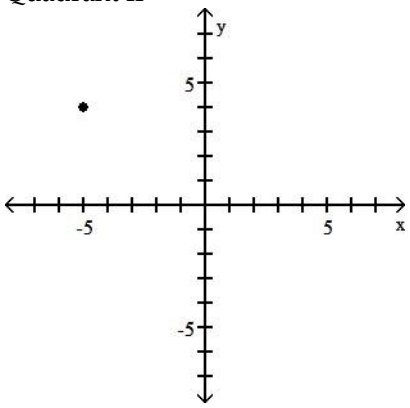
A) Quadrant IV



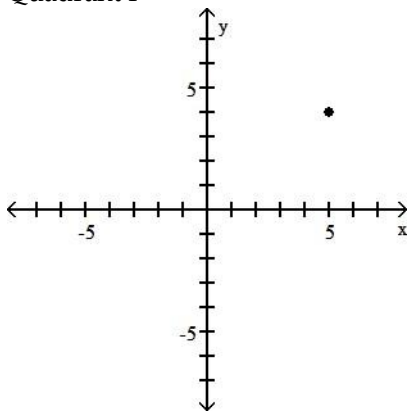
B) Quadrant I



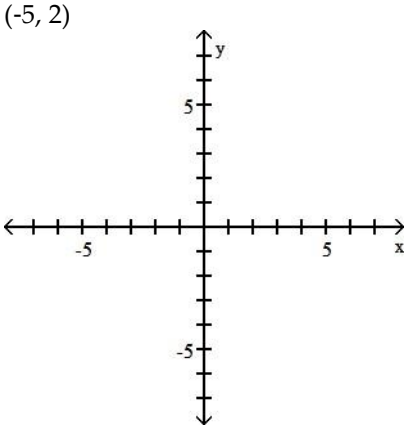
C) Quadrant II



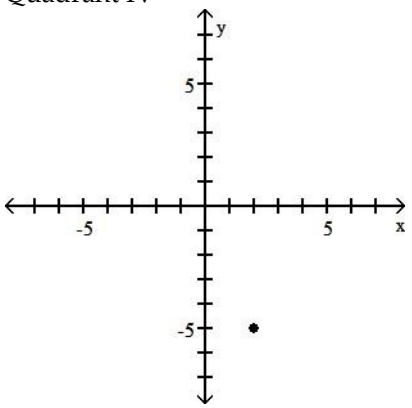
D) Quadrant I



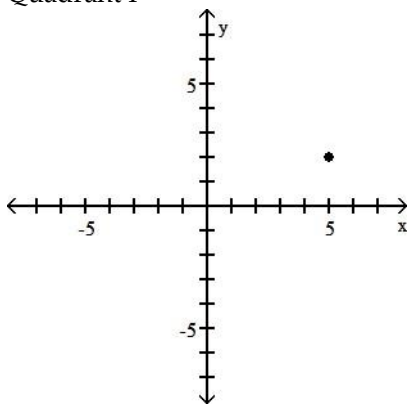
2) (-5, 2) 2) _____



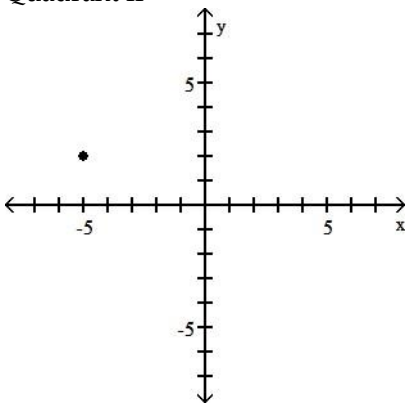
A) Quadrant IV



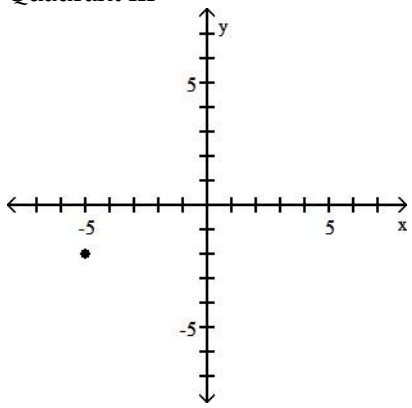
B) Quadrant I



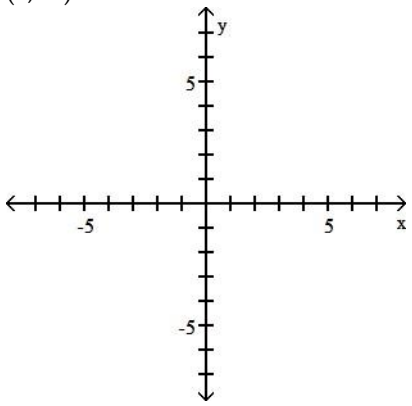
C) Quadrant II



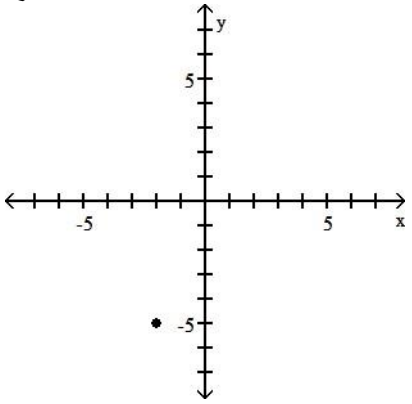
D) Quadrant III



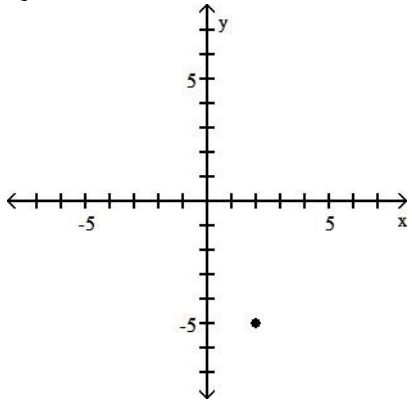
3) (2, -5) 3) _____



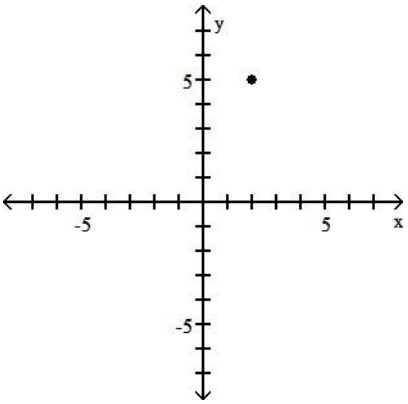
A) Quadrant III



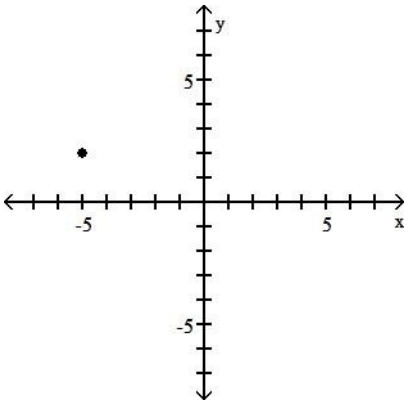
B) Quadrant IV



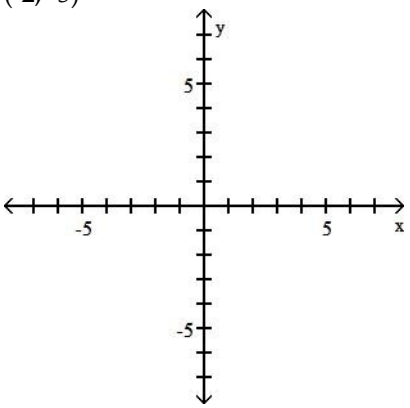
C) Quadrant I



D) Quadrant II

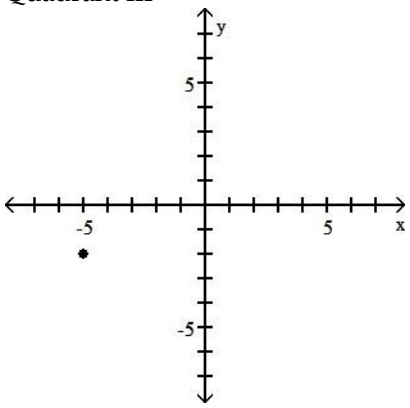


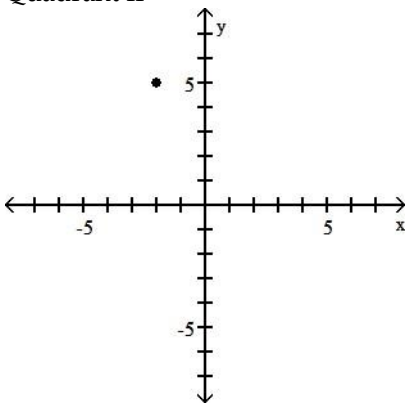
4) (-2, -5) 4) _____



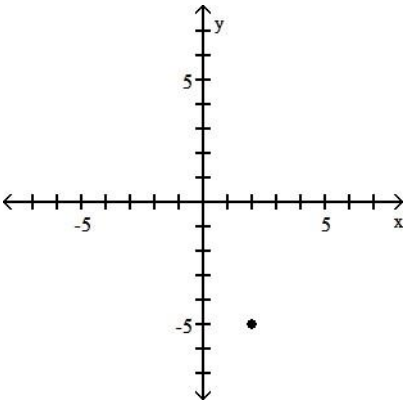
A) Quadrant III

B) Quadrant II

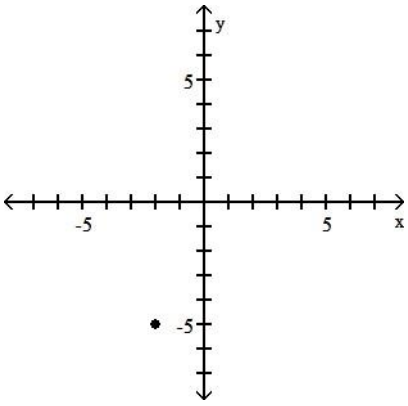




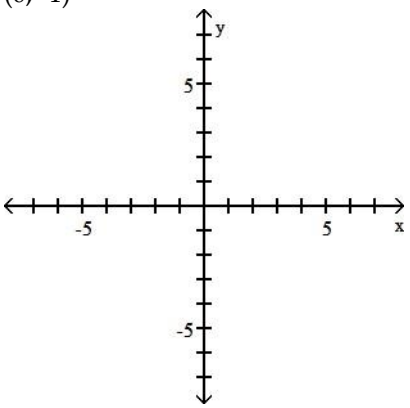
C) Quadrant IV



D) Quadrant III

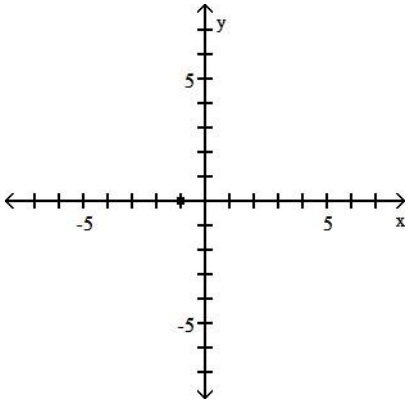


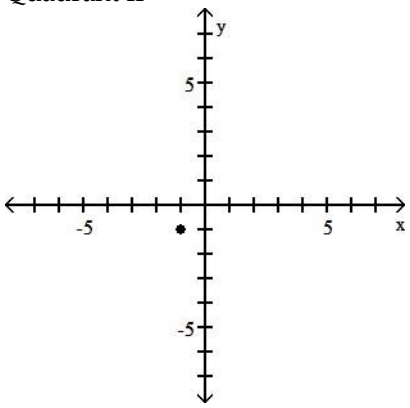
5) (0, -1) 5) _____



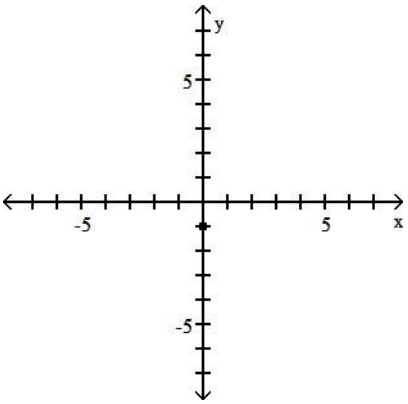
A) x-axis

B) Quadrant II

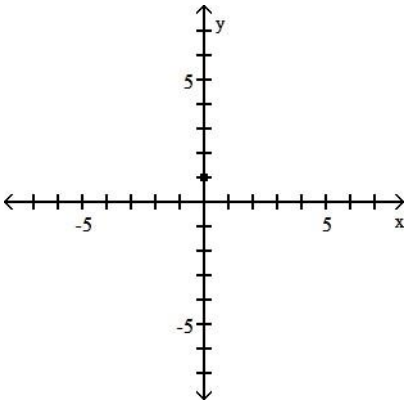




C) y-axis

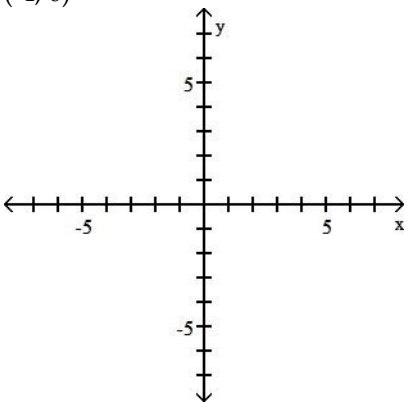


D) y-axis

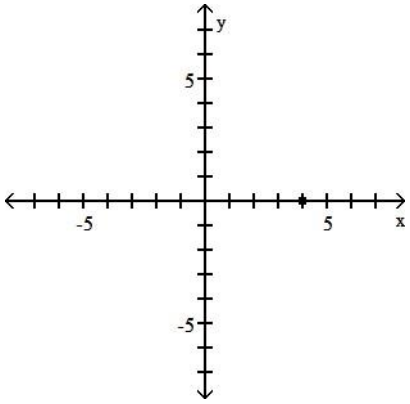


6) (-4, 0)

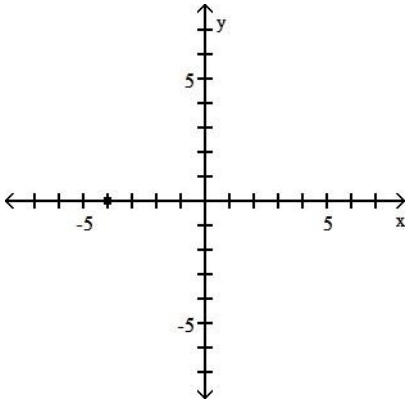
6) _____



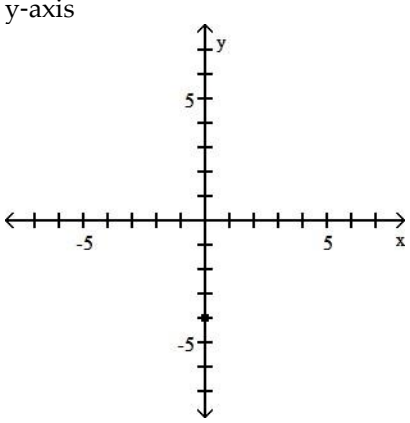
A) x-axis



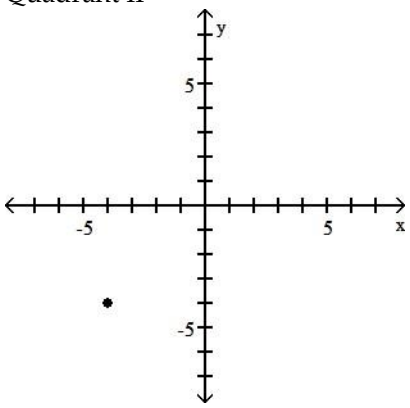
B) x-axis



C) y-axis

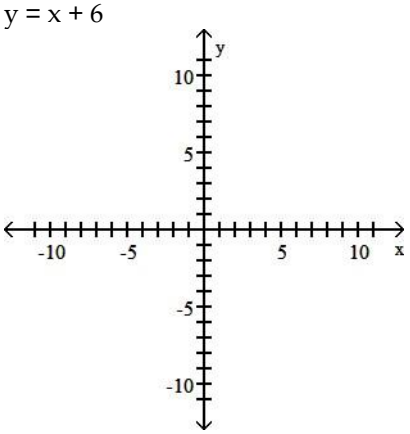


D) Quadrant II

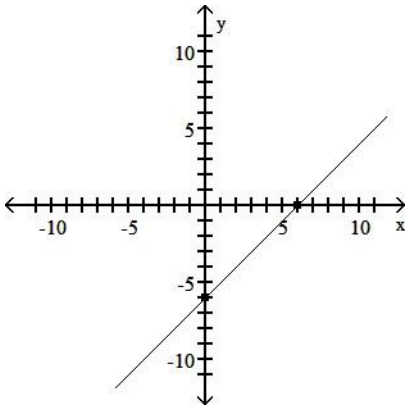


Sketch the graph for the equation by plotting points.

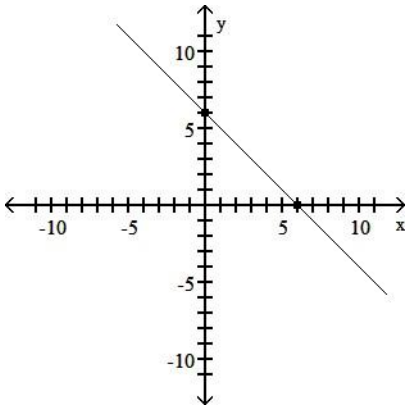
7) y = x + 6 7) _____



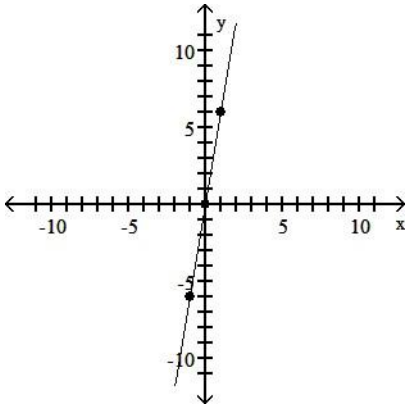
A)



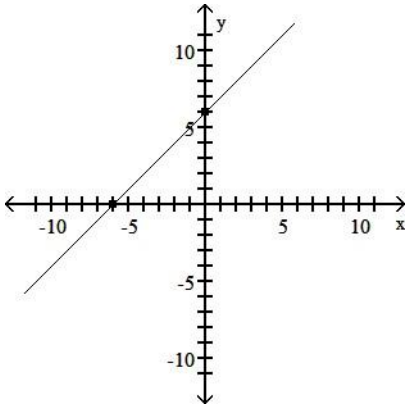
B)



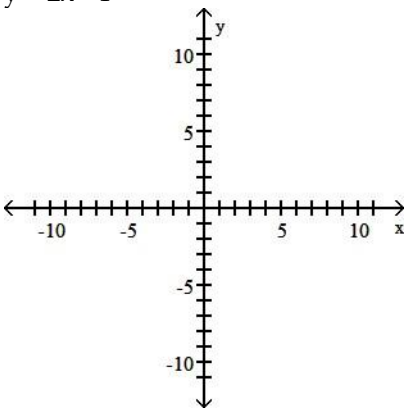
C)



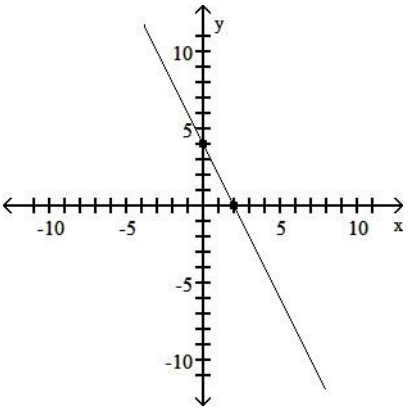
D)



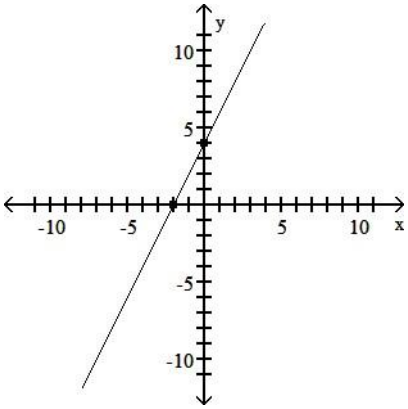
8) y = 2x - 4 8) _____



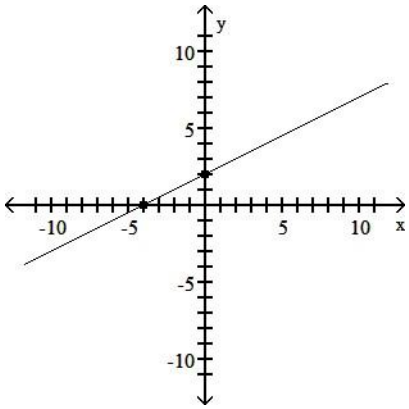
A)



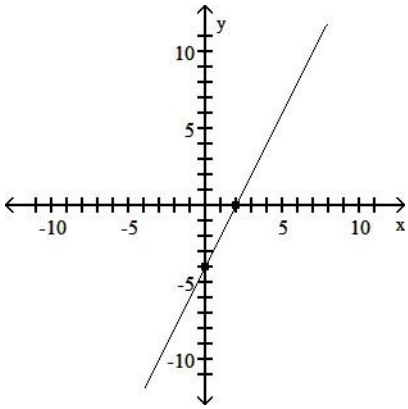
B)



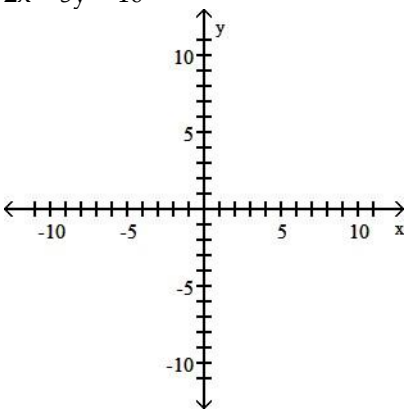
C)



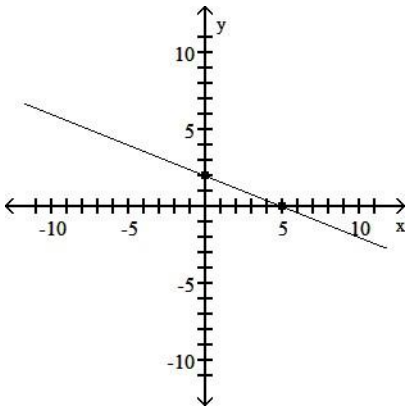
D)



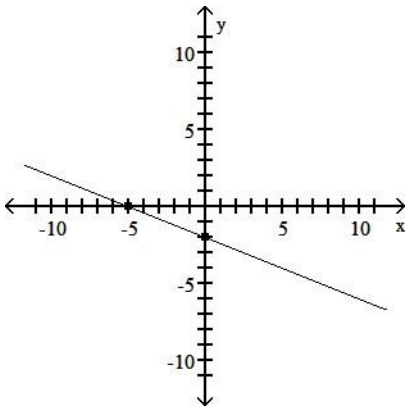
9) $2x + 5y = 10$ 9) _____



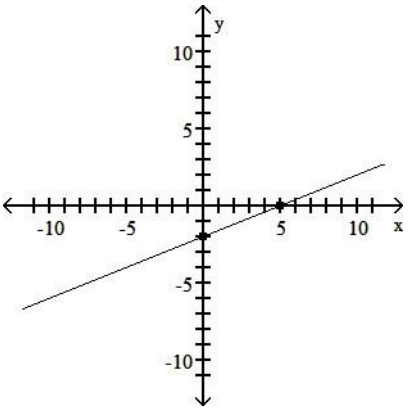
A)



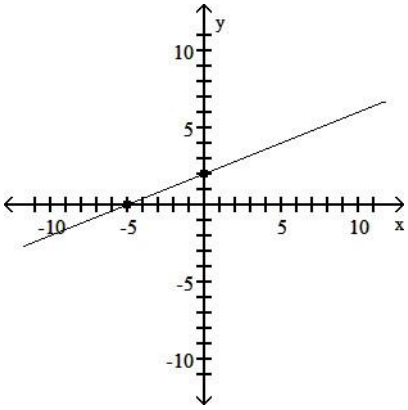
B)



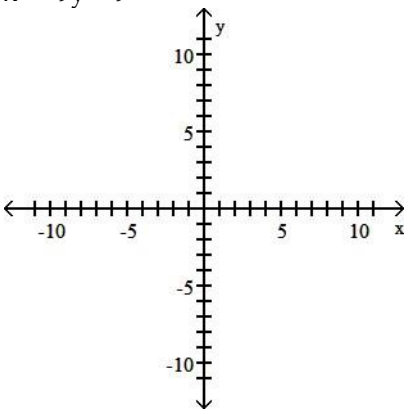
C)



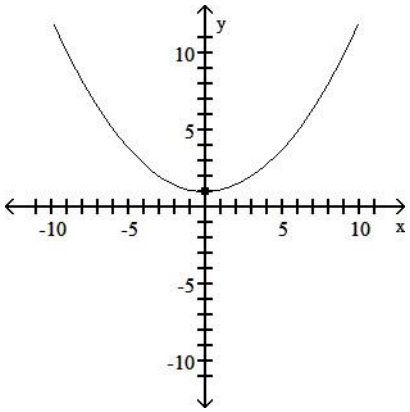
D)



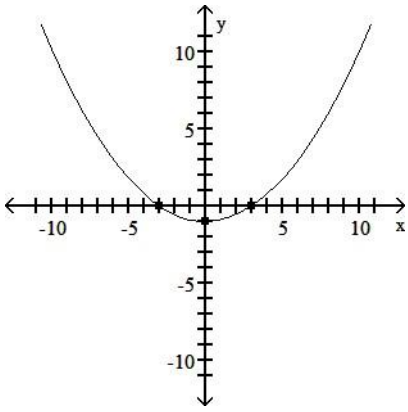
10) $x^2 + 9y = 9$ 10) _____



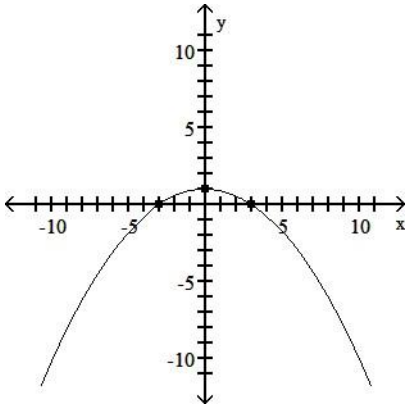
A)



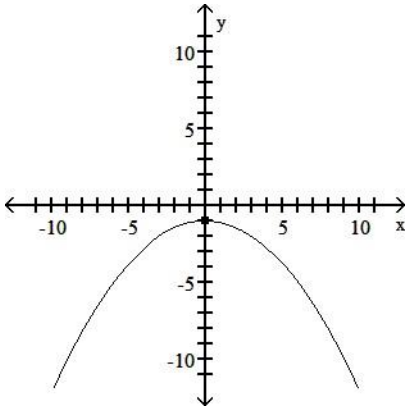
B)



C)



D)



Determine whether the indicated ordered pair lies on the graph of the given equation.

11) $y = 7^{x^2} - 1$, (-1, 6) 11) _____

A) Yes B) No

12) $y = 9^{x^2} + 1$, (-1, - 8) 12) _____

A) Yes B) No

13) $y = \sqrt{x} - 2$, (9, 1) 13) _____

A) Yes B) No

14) $y = \sqrt{x} - 4$, (4, 0) 14) _____

A) Yes B) No

15) $y = |x|$, (- 8, 8) 15) _____

A) Yes B) No

16) $y = |x|$, (6, - 6) 16) _____

A) Yes B) No

Find the midpoint of the line segment joining the points A and B.

17) A = (7, 1); B = (9, 9) 17) _____

A) $(5, 8)$ B) $(8, 5)$ C) (-2, -8) D) (16, 10)

18) A = (1, -3); B = (-4, 5) 18) _____

A) $\left(\frac{5}{2}, -4\right)$ B) $\left(-\frac{3}{2}, 1\right)$ C) (5, -8) D) (-3, 2)

19) A = (7, 1); B = (-16, -16) 19) _____

A) $\left(-\frac{9}{2}, -\frac{15}{2}\right)$ B) (-9, -15) C) (9, 15) D) $\left(\frac{23}{2}, \frac{17}{2}\right)$

20) A = (a, 3); B = (0, 7) 20) _____

A) (a, 10) B) $\left(-\frac{a}{2}, 4\right)$ C) $(a, 5)$ D) $\left(\frac{a}{2}, 5\right)$

21) A = (8 b, 6); B = (9 b, 3) 21) _____

A) (b, 3) B) $\left(\frac{9b}{2}, \frac{17}{2}\right)$ C) (17 b, 9) D) $\left(\frac{17b}{2}, \frac{9}{2}\right)$

Determine whether the points A, B, C and D form a parallelogram.

22) A(3, 3); B(6, 6); C(8, -2); D(11, 1) 22) _____

A) Yes B) No

23) A(2, 8); B(5, 8); C(7, 0); D(10, 3) 23) _____

A) Yes B) No

Find the distance d(A, B) between the points A and B.

24) A = (5, 5); B = (5, -5) 24) _____

A) 10 B) 9 C) $\sqrt{10}$ D) 11

25) A = (2, 3); B = (-10, -2) 25) _____

A) 169 B) 13 C) 26 D) 14

26) A = (0, 2); B = (-3, 2) 26) _____

A) 9 B) 2 C) 3 D) $\sqrt{13}$

27) A = (0, 0); B = (-3, 8) 27) _____

A) 5 B) 73 C) $\sqrt{73}$ D) $\sqrt{11}$

28) A = (6, 2); B = (-4, -1) 28) _____

A) $\sqrt{91}$ B) 7 C) 30 D) $\sqrt{109}$

29) A = (2, -7); B = (4, -3) 29) _____

A) $2\sqrt{5}$ B) $12\sqrt{3}$ C) 2 D) 12

30) A = (-1, -2); B = (6, -3) 30) _____

A) $5\sqrt{2}$ B) 8 C) $48\sqrt{3}$ D) 48

Determine whether the points A, B, and C form a right triangle.

31) A = (2, -3); B = (5, -3); C = (5, 5) 31) _____

A) Yes B) No

32) A = (-1, -2); B = (1, 2); C = (3, 1) 32) _____

A) Yes B) No

33) A = (7, 12); B = (13, 14); C = (12, 9) 33) _____

A) Yes B) No

34) A = (-3, -2); B = (3, 0); C = (9, -7) 34) _____

A) Yes B) No

Write the standard form of the equation of the circle.

35) Center (0, 0), r = 3 35) _____

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

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

36) Center (5, 8), r = 8 36) _____

A) $(x - 5)^2 + (y - 8)^2 = 64$ B) $(x + 5)^2 + (y + 8)^2 = 8$

C) $(x - 5)^2 + (y - 8)^2 = 8$ D) $(x + 5)^2 + (y + 8)^2 = 64$

37) Center (6, 0), r = 10 37) _____

A) $x^2 + (y - 6)^2 = 10$ B) $(x - 6)^2 + y^2 = 100$

C) $(x + 6)^2 + y^2 = 100$ D) $x^2 + (y + 6)^2 = 10$

38) Center (0, -3), r = 2 38) _____

A) $(x + 3)^2 + y^2 = 4$ B) $(x - 3)^2 + y^2 = 4$ C) $x^2 + (y + 3)^2 = 4$ D) $x^2 + (y - 3)^2 = 2$

39) The endpoints of a diameter are (3, 5) and (9, 5). 39) _____

A) $(x - 6)^2 + (y - 5)^2 = 3$ B) $(x + 6)^2 + (y + 5)^2 = 9$

C) $(x - 6)^2 + (y - 5)^2 = 9$ D) $(x + 6)^2 + (y + 5)^2 = 3$

Find the center and radius of the circle with the given equation.

40) $x^2 + y^2 = 16$ 40) _____

A) Center (4, 4), r = 16
B) Center (4, 4), r = 4
C) Center (0, 0), r = 4
D) Center (0, 0), r = 16

41) $(x - 8)^2 + (y - 3)^2 = 144$ 41) _____

A) Center (3, 8), r = 144
B) Center (3, 8), r = 12
C) Center (8, 3), r = 12
D) Center (8, 3), r = 144

42) $(x - 4)^2 + y^2 = 144$ 42) _____

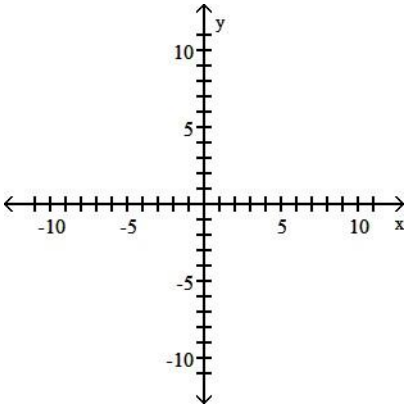
A) Center (0, 4), r = 12
B) Center (0, 4), r = 144
C) Center (4, 0), r = 12
D) Center (4, 0), r = 144

43) $x^2 + (y - 1)^2 = 100$ 43) _____

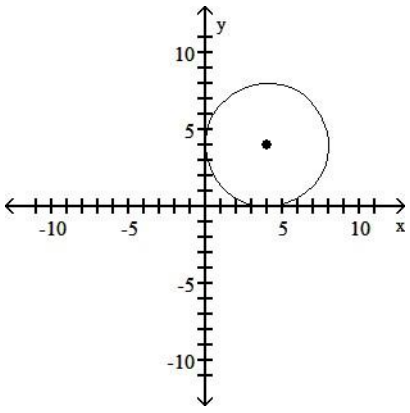
A) Center (1, 0), r = 100
B) Center (0, 1), r = 10
C) Center (0, 1), r = 100
D) Center (1, 0), r = 10

Graph the equation.

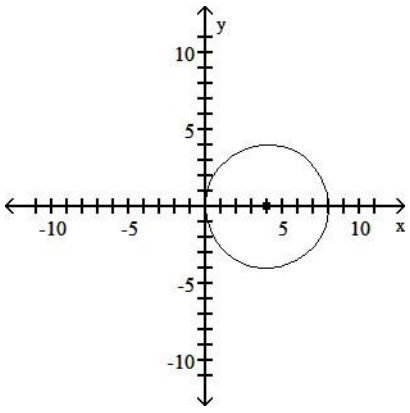
44) $x^2 + y^2 = 16$ 44) _____



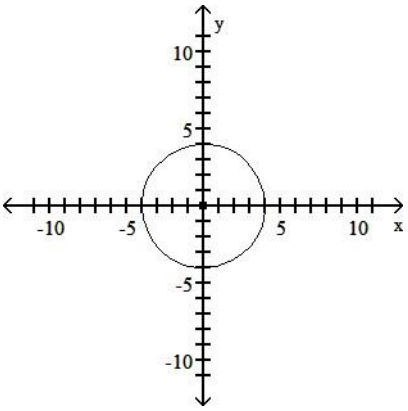
A)



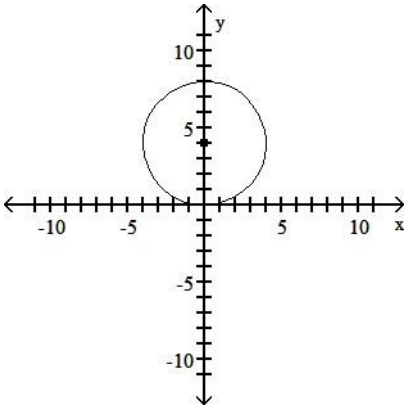
B)



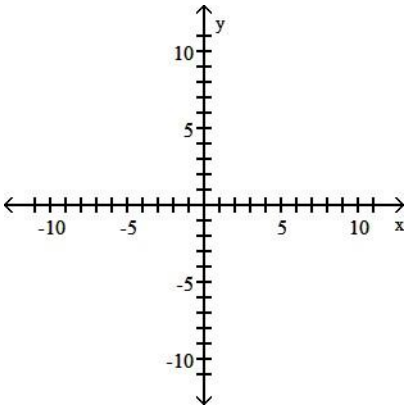
C)



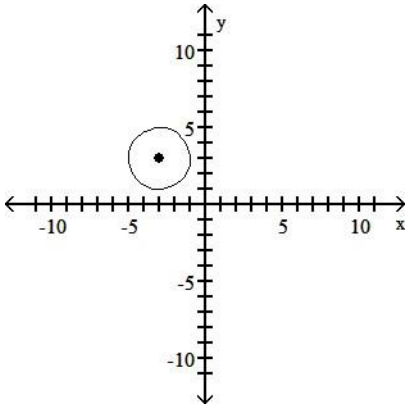
D)



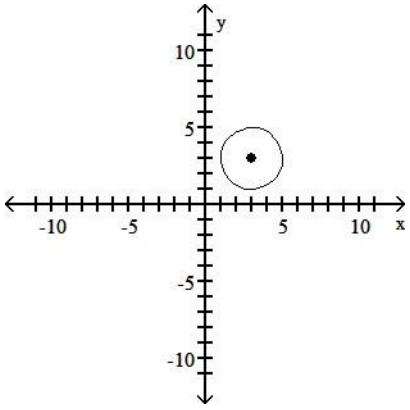
45) $(x - 3)^2 + (y + 3)^2 = 4$ 45) _____



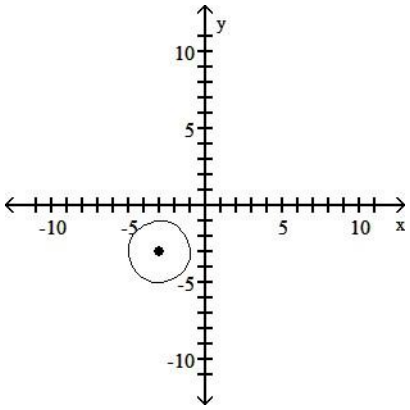
A)



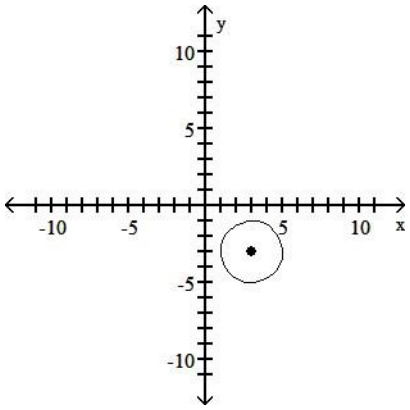
B)



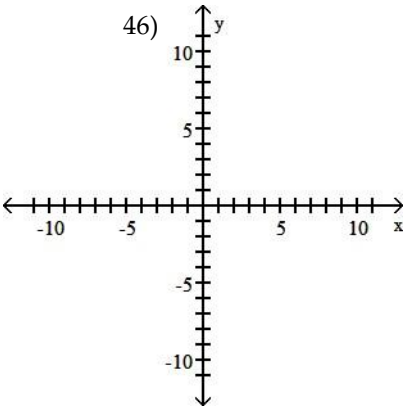
C)



D)



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

46) 

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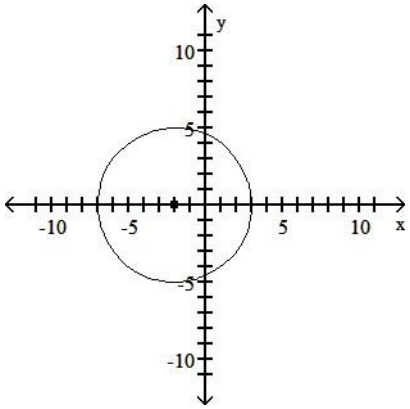
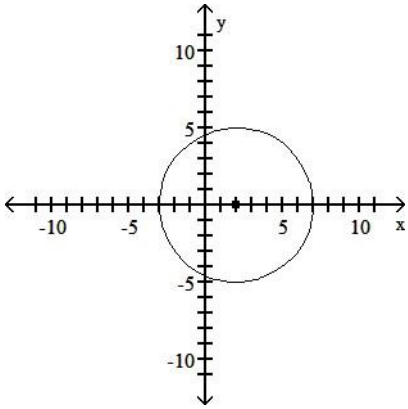
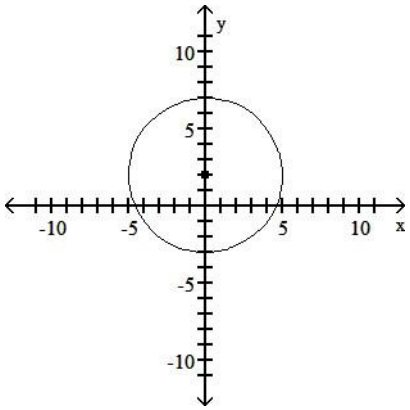
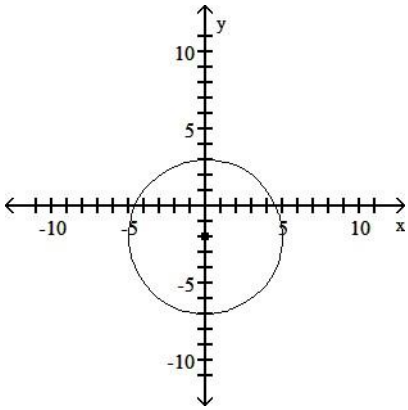
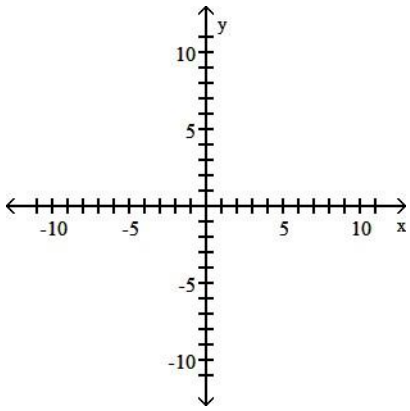
A) 

B) 

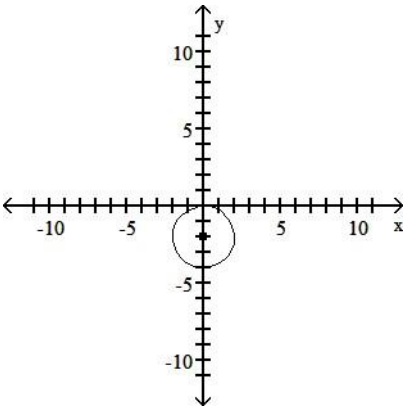
C) 

D) 

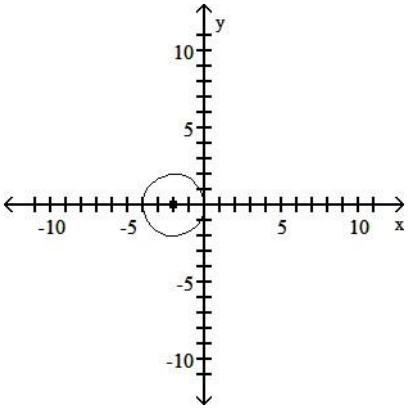
47) $(x - 2)^2 + y^2 = 4$ 47) _____



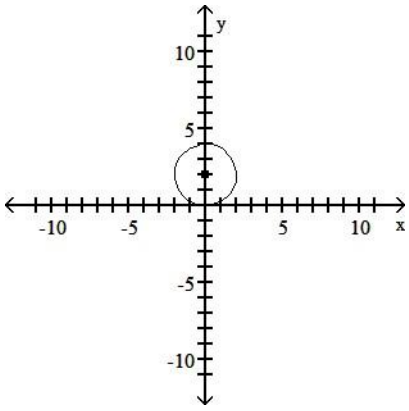
A)



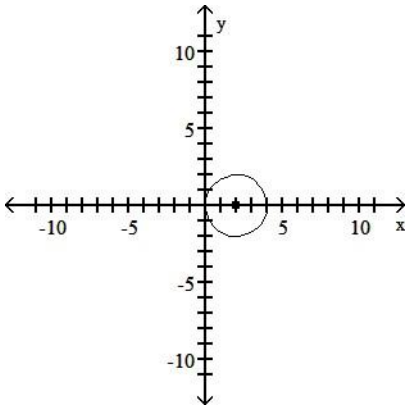
B)



C)



D)



Find the intercepts of the circle. Round to the nearest hundredth, when necessary.

48) $x^2 + y^2 = 9$ 48) _____

A) The two x-intercepts are x = 3 and x = - 3, and the two y-intercepts are y = 3 and y = - 3.
B) The x-intercept is x = 9, and the y-intercept is y = 9.
C) The two x-intercepts are x = 9 and x = - 9, and the two y-intercepts are y = 9 and y = - 9.
D) The x-intercept is x = 3, and the y-intercept is y = 3.

49) $(x - 4)^2 + (y - 4)^2 = 4$ 49) _____

A) The two x-intercepts are x = 4 and x = - 4, and the two y-intercepts are y = 2 and y = - 2.
B) The two x-intercepts are x = 6 and x = - 6, and the two y-intercepts are y = 2 and y = - 2.
C) There are no intercepts.
D) The x-intercept is x = 4, and the y-intercept is y = - 4.

50) $(x + 3)^2 + (y - 2)^2 = 24$ 50) _____

A) The two x-intercepts are x ≈ 2.29 and x ≈ -8.29, and the two y-intercepts are y ≈ 7.74 and y ≈ -3.74.
B) There are no intercepts.
C) The two x-intercepts are x ≈ 7.47 and x ≈ -1.47, and the two y-intercepts are y ≈ 1.87 and y ≈ -5.87.
D) The two x-intercepts are x ≈ 1.47 and x ≈ -7.47, and the two y-intercepts are y ≈ 5.87 and y ≈ -1.87.

51) $121x^2 + 121y^2 - 66x - 110y - 410 = 0$ 51) _____

A) The two x-intercepts are x ≈ 3.99 and x ≈ -3.45, and the two y-intercepts are y ≈ 4.25 and y ≈ -3.34.

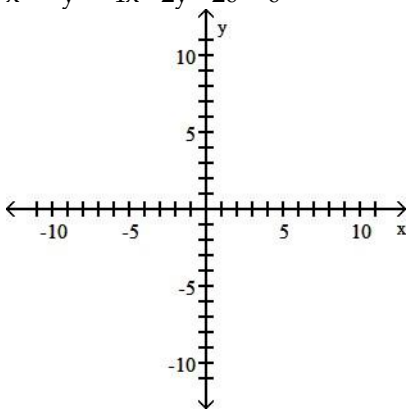
B) The x-intercept is x ≈ 40.32, and the y-intercept is y ≈ 39.7.

C) There are no intercepts.

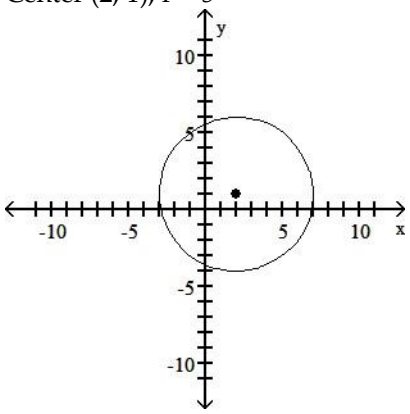
D) The two x-intercepts are x ≈ 2.13 and x ≈ -1.59, and the two y-intercepts are y ≈ 2.35 and y ≈ -1.44.

Find the center (h, k) and radius r of the circle. Graph the circle.

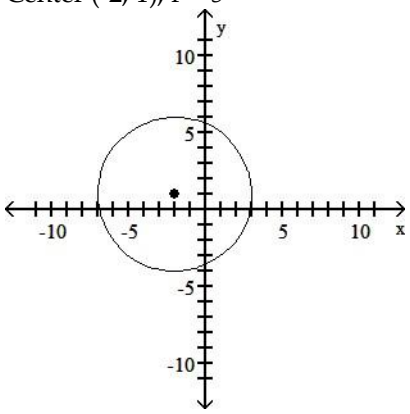
52) $x^2 + y^2 - 4x - 2y - 20 = 0$ 52) _____



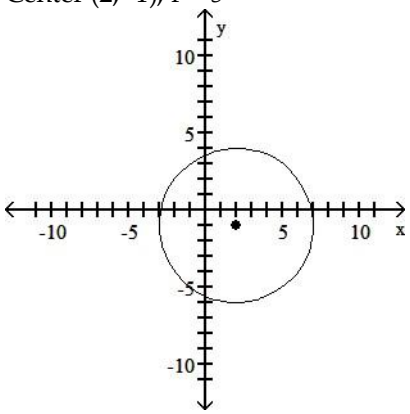
A) Center (2, 1), r = 5



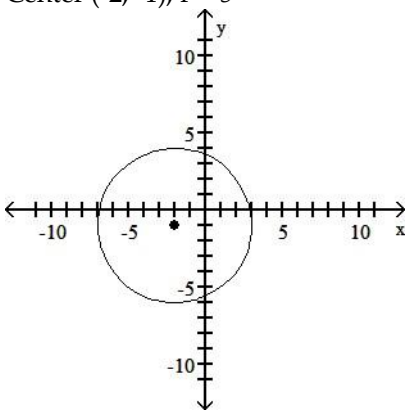
B) Center (-2, 1), r = 5



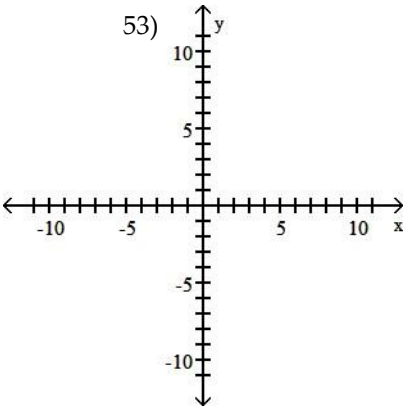
C) Center (2, -1), r = 5



D) Center (-2, -1), r = 5



53) $x^2 + y^2 + 10x + 6y + 30 = 0$

53) 

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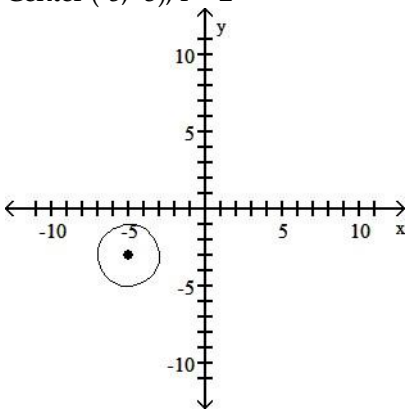
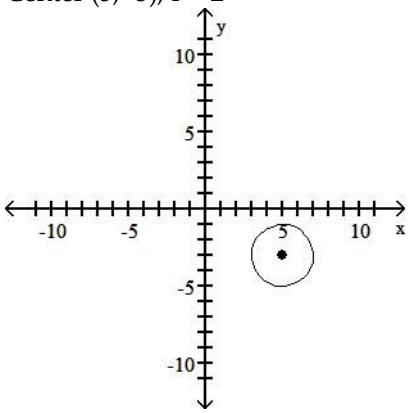
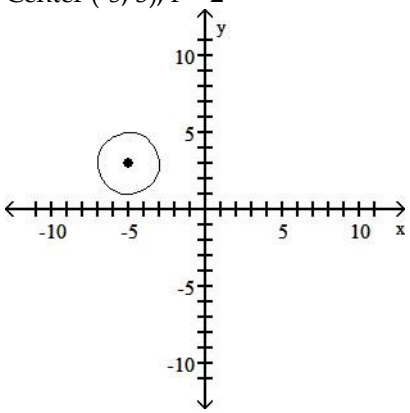
A) Center (-5, -3), r = 2



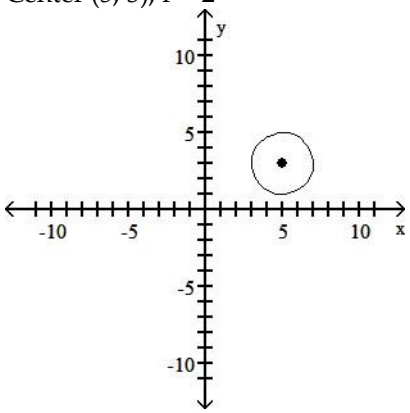
B) Center (5, -3), r = 2



C) Center (-5, 3), r = 2



D) Center (5, 3), r = 2



Find the center and radius of the circle with the given equation.

54) $x^2 - 8x + 16 + (y - 3)^2 = 25$ 54) _____

A) Center (-3, -4), r = 25
B) Center (3, 4), r = 5
C) Center (-4, -3), r = 25
D) Center (4, 3), r = 5

55) $x^2 + 14x + 49 + y^2 - 10y + 25 = 9$ 55) _____

A) Center (7, -5), r = 9
B) Center (5, -7), r = 3
C) Center (-7, 5), r = 3
D) Center (-5, 7), r = 9

56) $x^2 + y^2 - 8x - 4y + 20 = 81$ 56) _____

A) Center (-2, -4), r = 81
B) Center (-4, -2), r = 81
C) Center (4, 2), r = 9
D) Center (2, 4), r = 9

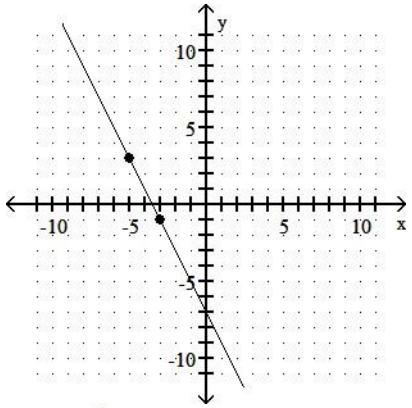
57) $x^2 + y^2 - 2x + 8y = 32$ 57) _____

A) Center (-1, 4), r = 49
B) Center (1, -4), r = 7

C) Center (4, -1), r = 49

D) Center (-4, 1), r = 7

Find the slope of the line.

58) 

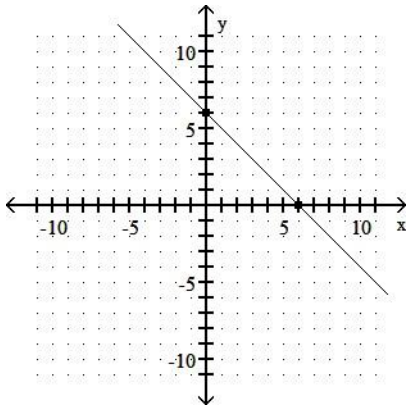
58) _____

A) $-\frac{1}{2}$

B) 2

C) - 2

D) $\frac{1}{2}$

59) 

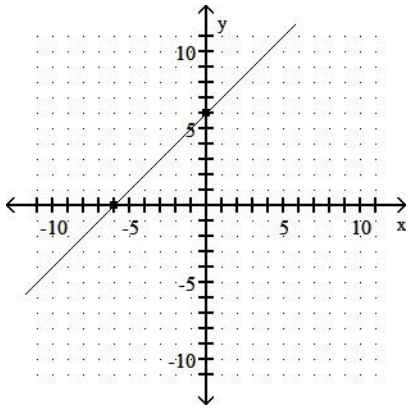
59) _____

A) -1

B) -6

C) 6

D) 1

60) 

60) _____

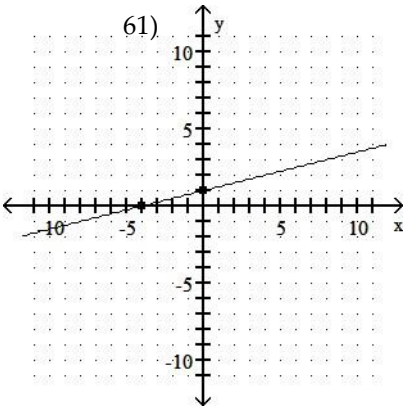
A) 1

B) 6

C) -6

D) -1

61)

61) 

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A) $-\frac{1}{4}$ B) -4 C) $\frac{1}{4}$ D) 4

Find the slope of the line containing the two points.

62) (7, -7) and (-6, 7) 62) _____

A) $\frac{13}{14}$ B) $\frac{14}{13}$ C) $-\frac{13}{14}$ D) $-\frac{14}{13}$

63) (10, 0) and (0, 3) 63) _____

A) $\frac{10}{3}$ B) $\frac{3}{10}$ C) $-\frac{3}{10}$ D) $-\frac{10}{3}$

64) (6, 4) and (1, 1) 64) _____

A) $-\frac{5}{3}$ B) $\frac{3}{5}$ C) $\frac{5}{3}$ D) $-\frac{3}{5}$

65) (-3, 6) and (-3, 2) 65) _____

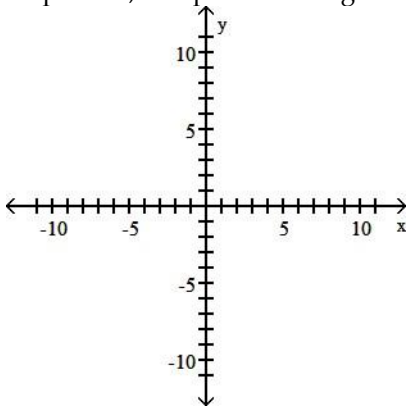
A) 0 B) $\frac{1}{4}$ C) -4 D) undefined

66) (-2, -2) and (-6, -2) 66) _____

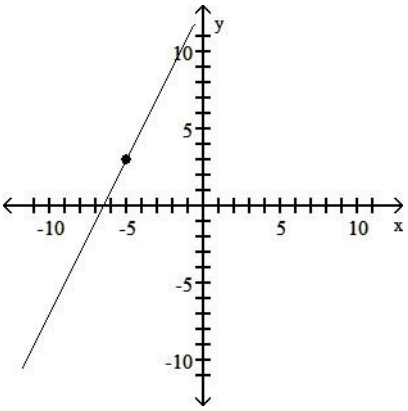
A) $\frac{1}{4}$ B) 0 C) -4 D) undefined

Sketch the line with the given slope that passes through the indicated point.

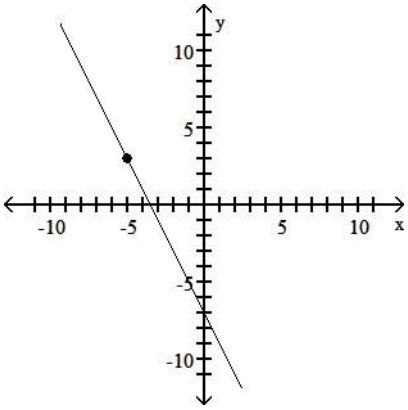
67) Slope = - 2; line passes through the point (-5, 3) 67) _____



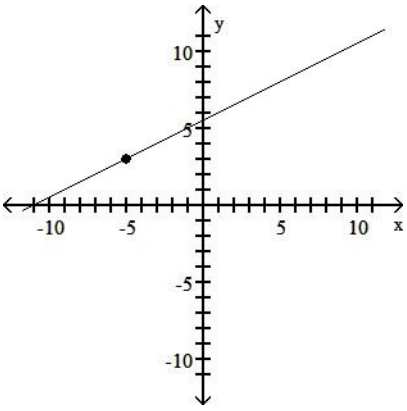
A)



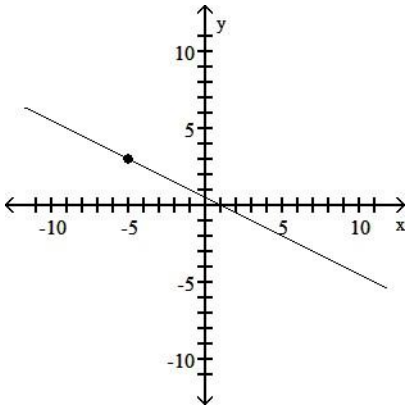
B)



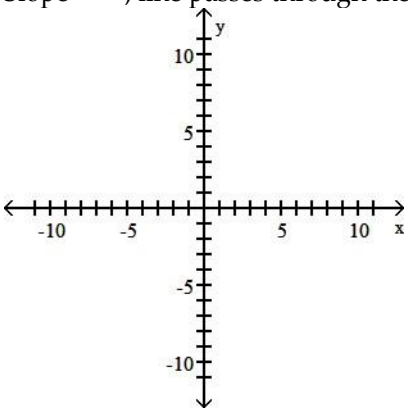
C)



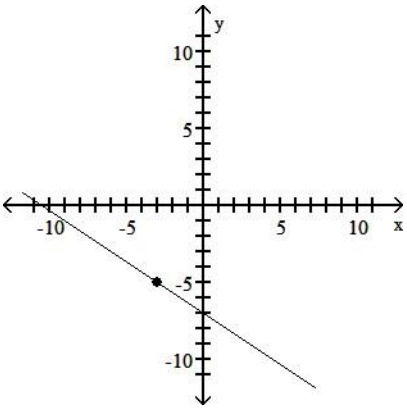
D)



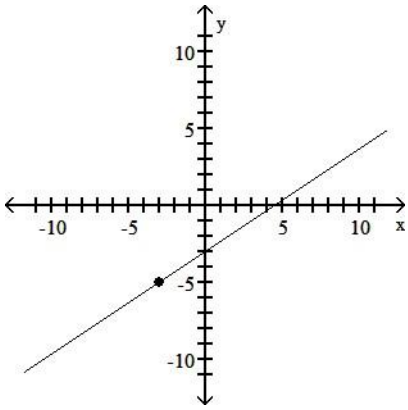
68) Slope = $\frac{2}{3}$; line passes through the point (-3, -5) 68) _____



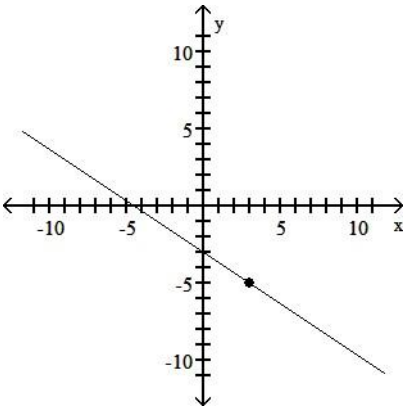
A)



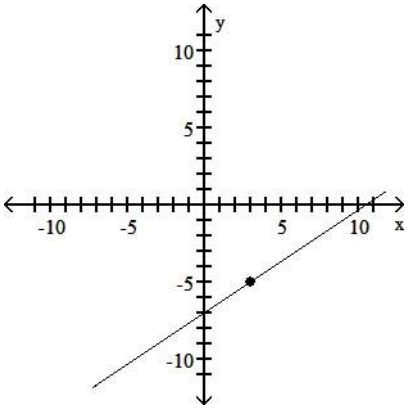
B)



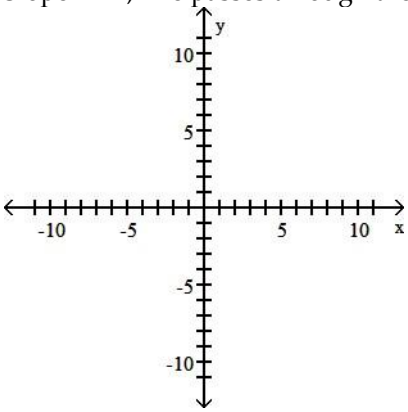
C)



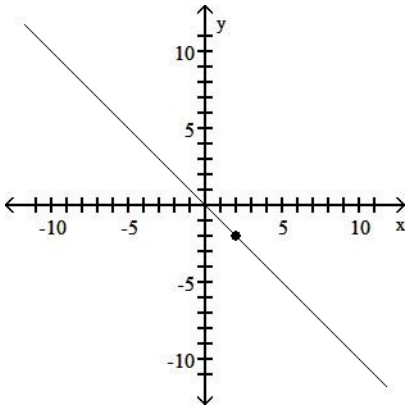
D)



69) Slope = - 1; line passes through the point (-2, -2) 69) _____



A)



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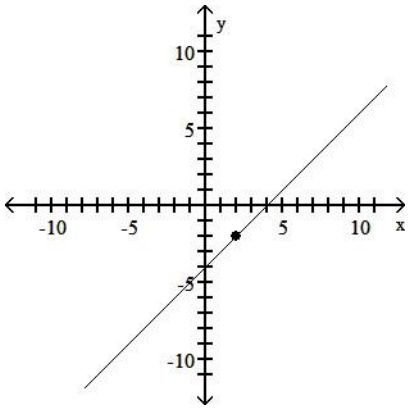

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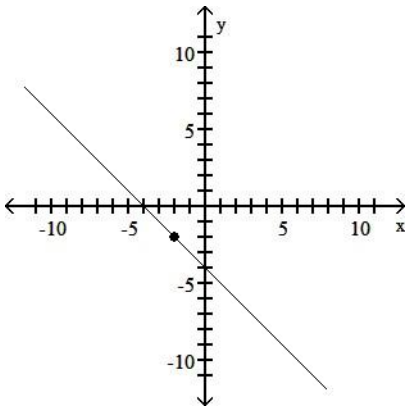
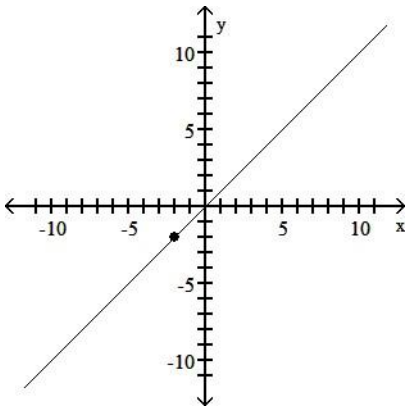
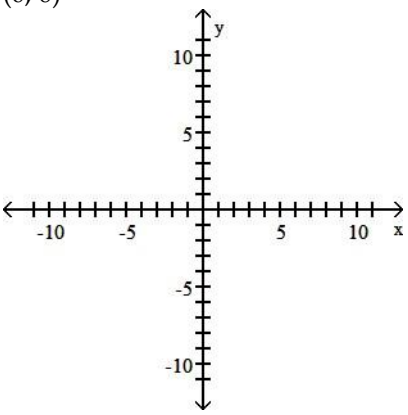


D)

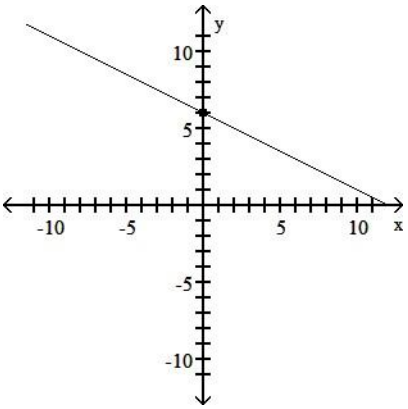


70) Slo
pe

70) $\frac{1}{2}$ = ; line passes through the point (0, 6)



A)



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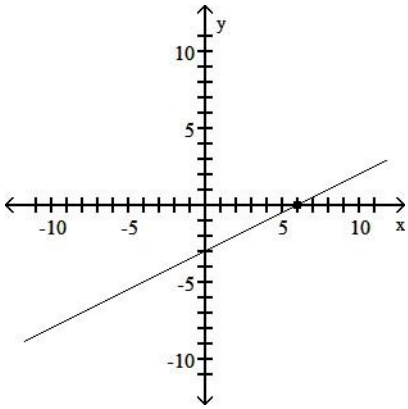

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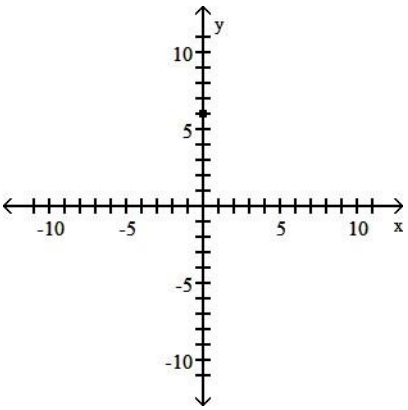

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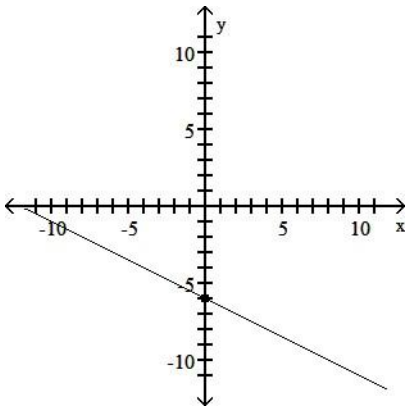
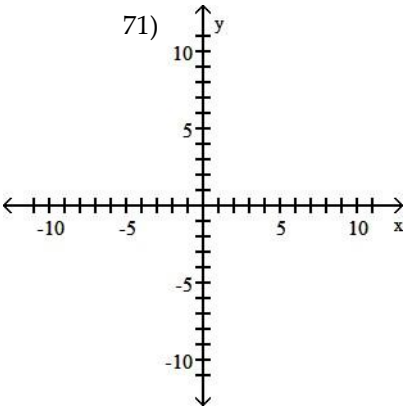


71) Slope = - 1; line passes through the point (0, 4)

71) 

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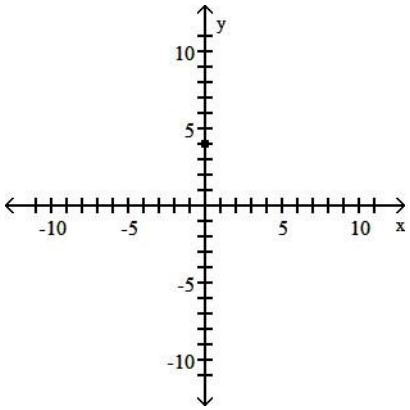
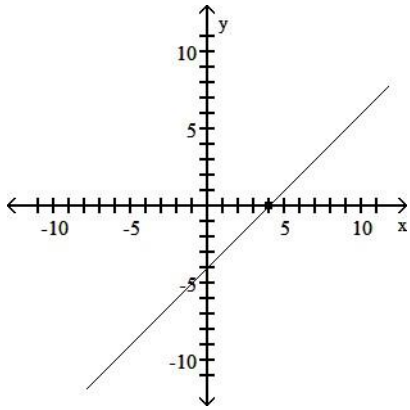
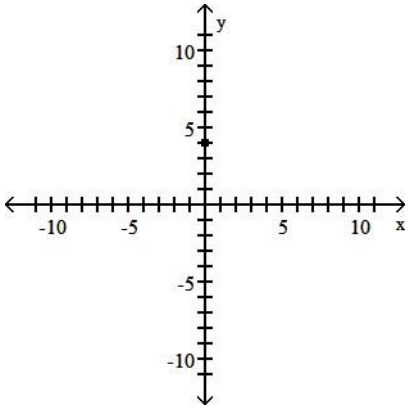
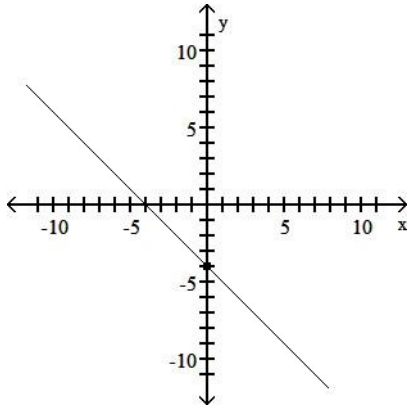
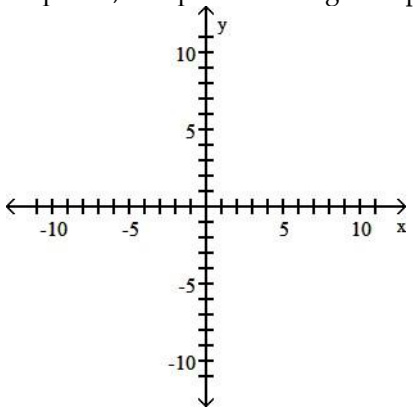
A) 

B) 

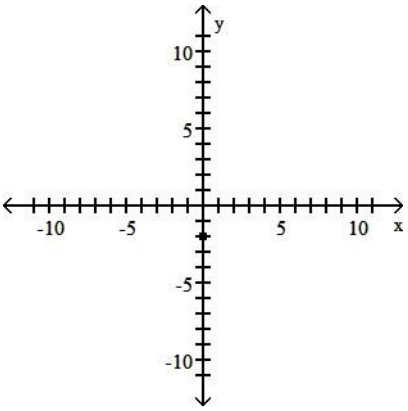
C) 

D) 

72) Slope = 1; line passes through the point (- 2, 0) 72) _____



A)



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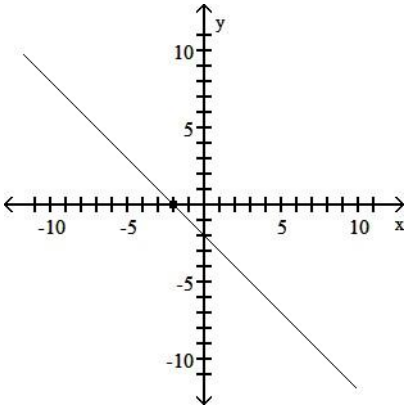

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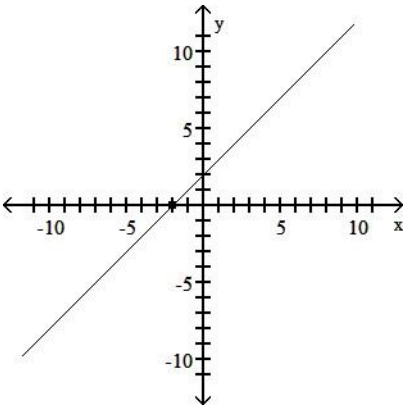

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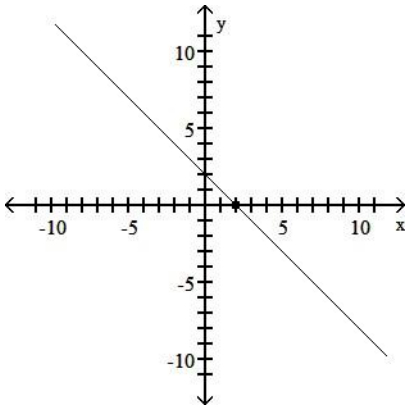
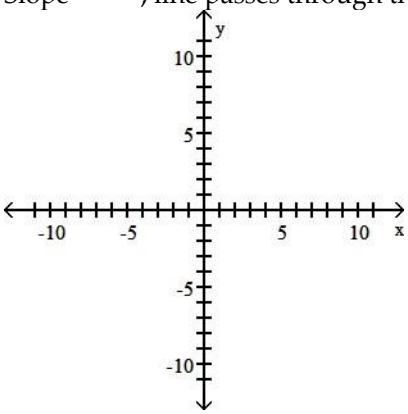
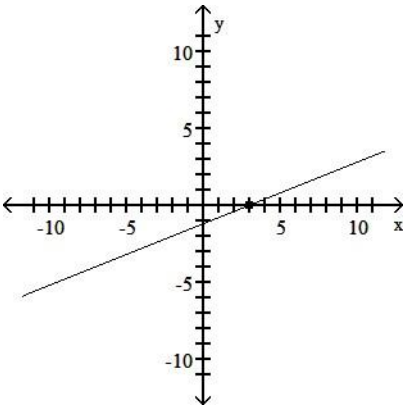


73) Slope = $-\frac{2}{5}$; line passes through the point (3, 0) 73) _____



A)



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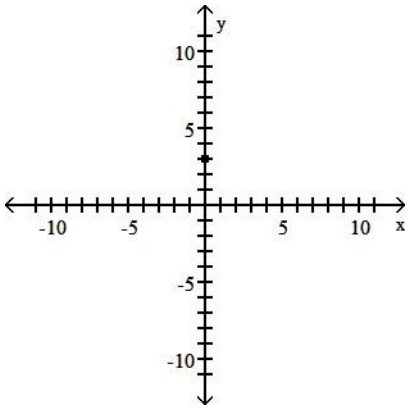

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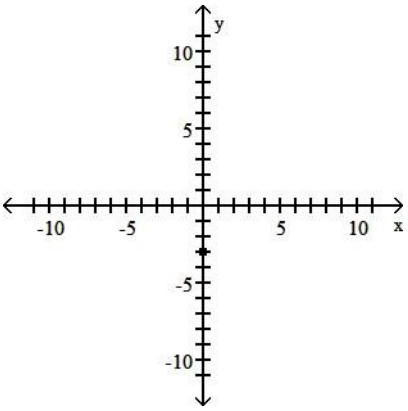

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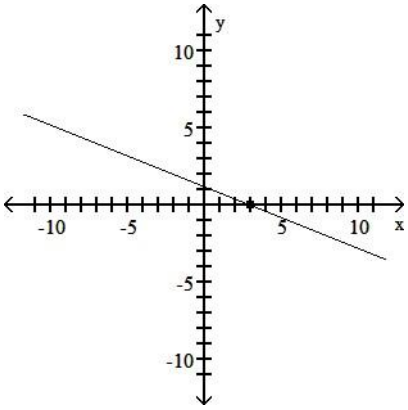
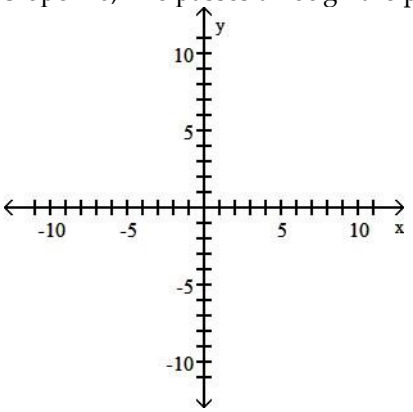
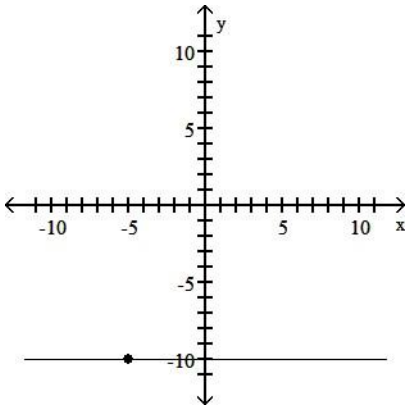


74) Slope = 0; line passes through the point (-5, -10) 74) _____



A)



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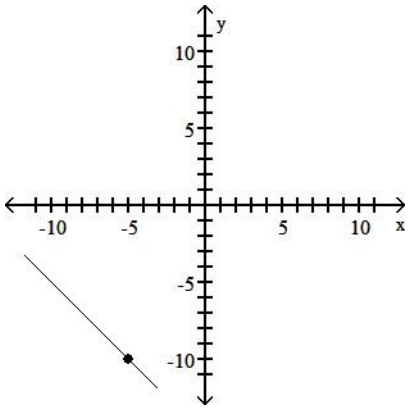

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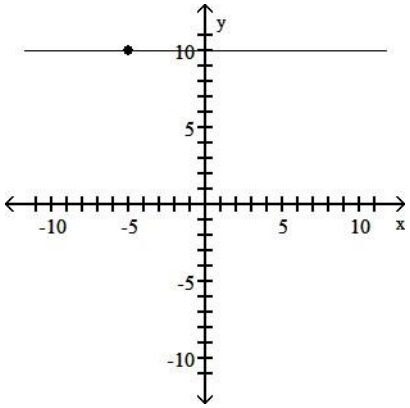
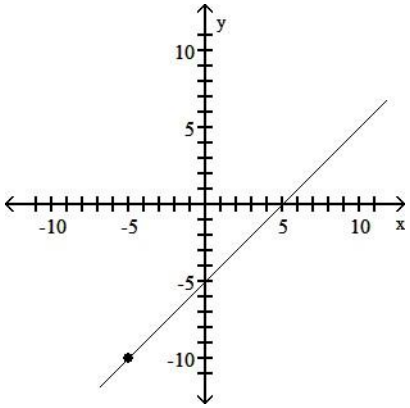
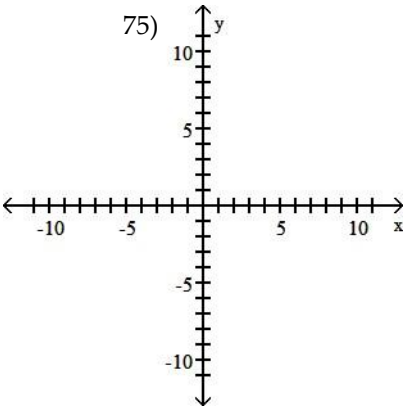


D)



75) Slope is undefined; line passes through the point (1, 2)

75) 

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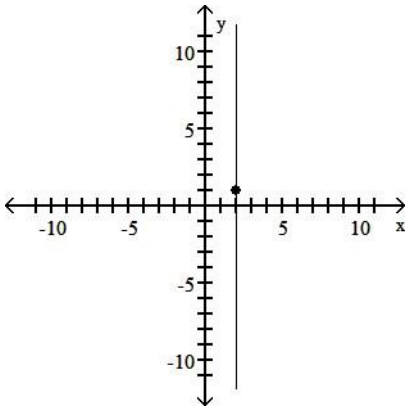
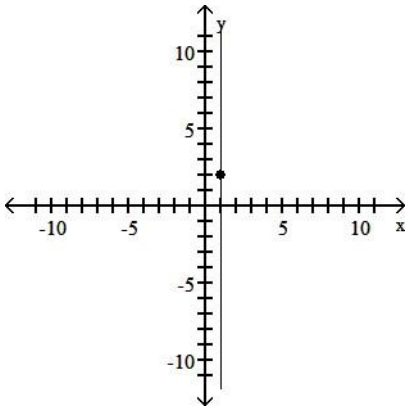
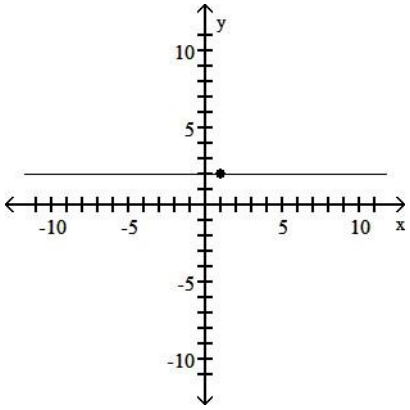
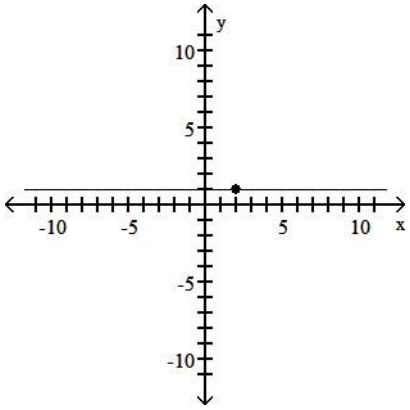
___

A) 

B) 

C) 

D) 

Find the point-slope equation for the line with the given properties.

76) Slope = $\frac{1}{2}$; line passes through the point (3, -4) 76) _____

A) $y + 4 = \frac{1}{2}(x - 3)$ B) $x - 4 = \frac{1}{2}(y + 3)$ C) $y - 4 = \frac{1}{2}(x + 3)$ D) $y - 3 = \frac{1}{2}(x + 4)$

77) Slope = $-\frac{2}{3}$; line passes through the point (4, 2) 77) _____

A) $y + 2 = -\frac{2}{3}(x + 4)$ B) $y - 2 = -\frac{2}{3}(x + 4)$

C) $y - 2 = \frac{2}{3}(x - 4)$ D) $y - 2 = -\frac{2}{3}(x - 4)$

Find the equation of the line passing through the indicated two points. Write the equation in point-slope form.

78) (-4, -1) and (2, 11) 78) _____

A) $y - 1 = 2(x - 4)$ or $y + 11 = 2(x + 2)$
B) $y + 1 = 2(x + 4)$ or $y - 11 = 2(x - 2)$
C) $y - 1 = 2(x - 4)$ or $y - 11 = 2(x - 2)$
D) $y + 1 = 2(x - 4)$ or $y - 11 = 2(x + 2)$

79) (-2, 13) and (4, -11) 79) _____

A) $y - 13 = -4(x + 2)$ or $y + 11 = -4(x - 4)$
B) $y - 13 = -4(x - 2)$ or $y - 11 = -4(x - 4)$
C) $y + 13 = -4(x - 2)$ or $y - 11 = -4(x + 4)$
D) $y + 13 = -4(x + 2)$ or $y + 11 = -4(x + 4)$

80) (-6, 8) and (-9, 6) 80) _____

A) $y + 8 = \frac{2}{3}(x - 6)$ or $y + 6 = \frac{2}{3}(x - 9)$
B) $y - 8 = \frac{14}{15}(x + 6)$ or $y - 6 = \frac{14}{15}(x + 9)$
C) $y - 8 = -\frac{14}{15}(x + 6)$ or $y - 6 = -\frac{14}{15}(x + 9)$
D) $y - 8 = \frac{2}{3}(x + 6)$ or $y - 6 = \frac{2}{3}(x + 9)$

81) (4, -6) and (-3, -8) 81) _____

A) $y + 6 = -2(x - 4)$ or $y + 8 = -2(x + 3)$
B) $y - 6 = -2(x + 4)$ or $y - 8 = -2(x - 3)$
C) $y + 6 = \frac{2}{7}(x - 4)$ or $y + 8 = \frac{2}{7}(x + 3)$
D) $y - 6 = \frac{2}{7}(x + 4)$ or $y - 8 = \frac{2}{7}(x - 3)$

82) (-7, -3) and (2, 4) 82) _____

A) $y - 3 = \frac{7}{9}(x - 7)$ or $y + 4 = \frac{7}{9}(x + 2)$
B) $y + 3 = \frac{7}{9}(x + 7)$ or $y - 4 = \frac{7}{9}(x - 2)$
C) $y - 3 = -2(x - 7)$ or $y + 4 = -2(x + 2)$
D) $y + 3 = -2(x + 7)$ or $y - 4 = -2(x - 2)$

83) $\left(1, \frac{8}{15}\right)$ and $\left(5, \frac{4}{3}\right)$ 83) _____

A) $y - \frac{8}{15} = 5(x - 1)$ or $y - \frac{4}{3} = 5(x - 5)$
B) $y - \frac{8}{15} = \frac{1}{5}(x - 1)$ or $y - \frac{4}{3} = \frac{1}{5}(x - 5)$
C) $y + \frac{8}{15} = \frac{1}{5}(x + 1)$ or $y + \frac{4}{3} = \frac{1}{5}(x + 5)$
D) $y + \frac{8}{15} = 5(x + 1)$ or $y + \frac{4}{3} = 5(x + 5)$

Find the slope-intercept form of the equation of the line with the given properties.

84) Slope = -10; y-intercept = 25 84) _____

A) $y = 25x - 10$ B) $y = -10x + 25$ C) $y = 25x + 10$ D) $y = -10x - 25$

85) Slope = $-\frac{7}{6}$; y-intercept = 7 85) _____

A) $y = \frac{7}{6}x + 7$ B) $y = -\frac{7}{6}x + 6$ C) $y = -\frac{6}{7}x + 6$ D) $y = -\frac{7}{6}x + 7$

Find the equation of the line passing through the indicated two points. Write the equation in slope-intercept form.

86) (5, -3) and (-1, 9) 86) _____

A) $y = 12x - 63$ B) $x = 5$ C) $y = -6x + 27$ D) $y = -2x + 7$

87) (-5, 2) and (0, -9) 87) _____

A) $y = \frac{7}{9}x - 9$ B) $y = -\frac{7}{9}x - 9$ C) $y = -\frac{11}{5}x - 9$ D) $y = \frac{11}{5}x - 9$

88) (5, 0) and (-2, -5) 88) _____

A) $y = \frac{5}{3}x - \frac{5}{3}$ B) $y = -\frac{5}{3}x - \frac{5}{3}$ C) $y = \frac{5}{7}x - \frac{25}{7}$ D) $y = -\frac{5}{7}x - \frac{25}{7}$

89) (4, -6) and (-7, -2) 89) _____

A) $y = -\frac{4}{11}x - \frac{50}{11}$ B) y = 2x - 16 C) $y = \frac{4}{11}x - \frac{50}{11}$ D) y = - 2x - 16

90) (2, -9) and (5, -4) 90) _____

A) y = -13x + 17 B) $y = \frac{5}{3}x - \frac{37}{3}$

C) x = 2 D) $y = \frac{5}{2}x - 14$

91) $\left(1, \frac{9}{14}\right)$ and $\left(2, \frac{8}{7}\right)$ 91) _____

A) $y = \frac{1}{2}x + \frac{19}{28}$ B) $y = \frac{1}{2}x + \frac{1}{7}$ C) $y = 2x - \frac{2}{7}$ D) $y = 2x - \frac{19}{14}$

92) $\left(-\frac{1}{3}, \frac{4}{3}\right)$ and $\left(\frac{1}{3}, \frac{7}{3}\right)$ 92) _____

A) $y = \frac{3}{2}x$ B) y = 3x + 11 C) $y = \frac{3}{2}x - \frac{1}{2}$ D) $y = \frac{3}{2}x + \frac{11}{6}$

93) (3, 5) and (-9, 5) 93) _____

A) y = 5 B) y = 5x - 20 C) y = 10x - 35 D) y = 2x - 11

94) (4, 5) and (4, 1) 94) _____

A) y = 5 B) y = 4 C) x = 4 D) x = 5

Find the equation of the line passing through the indicated two points in standard form.

95) (6, -5) and (-7, 9) 95) _____

A) 14x + 13y = 19 B) 11x - 16y = -67

C) -11x + 16y = -67 D) -14x + 13y = 19

96) (12, 0) and (0, -5) 96) _____

A) 5x - 12y = 60 B) $y = -\frac{5}{12}x + 12$ C) $y = -\frac{5}{12}x - 5$ D) 5x + 12y = 60

97) (1, -8) and (-6, 9) 97) _____

A) -9x + 15y = -81 B) 17x + 7y = -39 C) -17x + 7y = -39 D) 9x - 15y = -81

98) (-3, 9) and (0, -5) 98) _____

A) 14x - 3y = 15 B) -14x - 3y = 15 C) 12x - 5y = -25 D) -12x + 5y = -25

99) (5, 0) and (8, -7) 99) _____

A) -5x - 15y = -145 B) 7x - 3y = -35

C) 5x + 15y = -145 D) -7x - 3y = -35

100) (8, -7) and (-5, 9) 100) _____

A) -15x + 14y = -51
B) -16x + 13y = 37
C) 16x + 13y = 37
D) 15x - 14y = -51

Find the slope and y-intercept of the line.

101) x + y = -10 101) _____
A) slope = 0; y-intercept = -10
B) slope = 1; y-intercept = -10
C) slope = -1; y-intercept = 10
D) slope = -1; y-intercept = -10

102) 12x + y = -1 102) _____
A) slope = 12; y-intercept = -1
B) slope = -12; y-intercept = -1
C) slope = $-\frac{1}{12}$; y-intercept = $-\frac{1}{12}$
D) slope = - 12; y-intercept = - 1

103) - 4x + 7y = 1 103) _____
A) slope = $\frac{7}{4}$; y-intercept = $-\frac{1}{4}$
B) slope = 4; y-intercept = 8
C) slope = $\frac{8}{7}$; y-intercept = $\frac{1}{7}$
D) slope = $\frac{4}{7}$; y-intercept = $\frac{1}{7}$

104) 19x + 2y = 17 104) _____
A) slope = $-\frac{19}{2}$; y-intercept = $\frac{17}{2}$
B) slope = $\frac{19}{2}$; y-intercept = $-\frac{17}{2}$
C) slope = 19; y-intercept = 17
D) slope = $\frac{19}{2}$; y-intercept = $\frac{17}{2}$

105) 6x - 5y = 1 105) _____
A) slope = 6; y-intercept = 1
B) slope = $\frac{5}{6}$; y-intercept = $\frac{1}{6}$
C) slope = $\frac{6}{5}$; y-intercept = $\frac{1}{5}$
D) slope = $\frac{6}{5}$; y-intercept = $-\frac{1}{5}$

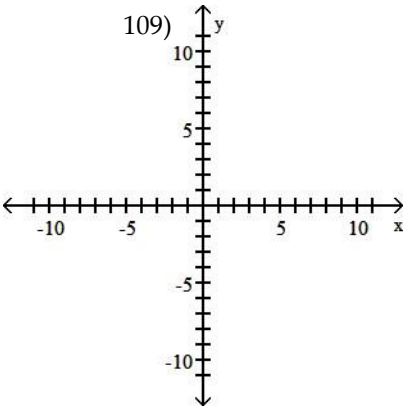
106) 7x - 5y = 35 106) _____
A) slope = 7; y-intercept = 35
B) slope = $\frac{7}{5}$; y-intercept = -7
C) slope = $\frac{5}{7}$; y-intercept = 5
D) slope = $-\frac{7}{5}$; y-intercept = 7

107) x + 4y = 1 107) _____
A) slope = $\frac{1}{4}$; y-intercept = $\frac{1}{4}$
B) slope = $-\frac{1}{4}$; y-intercept = $\frac{1}{4}$
C) slope = 1; y-intercept = 1
D) slope = -4; y-intercept = 4

108) -x + 2y = 6 108) _____
A) slope = -1; y-intercept = 6
B) slope = 2; y-intercept = -6
C) slope = $\frac{1}{2}$; y-intercept = 3
D) slope = $-\frac{1}{2}$; y-intercept = 3

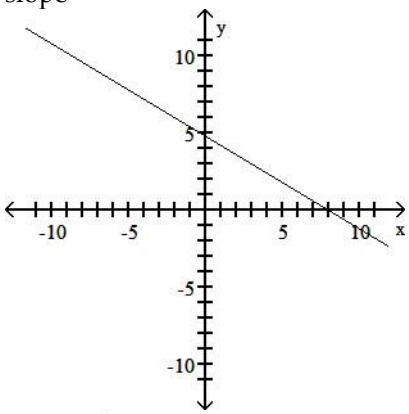
Find the slope of the line determined by the given equation and then sketch the line.

109) 3x + 5y = 24

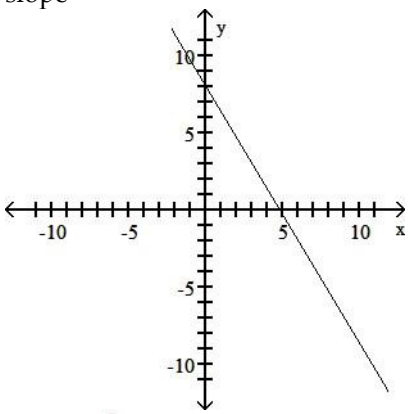
109) 

____
_

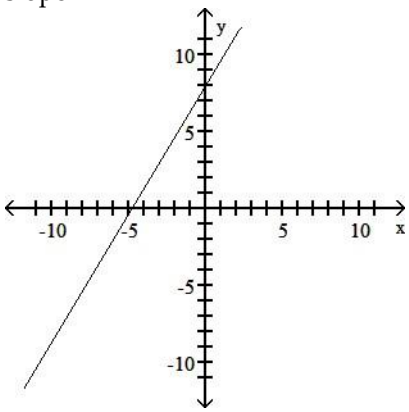
A) slope = $-\frac{3}{5}$



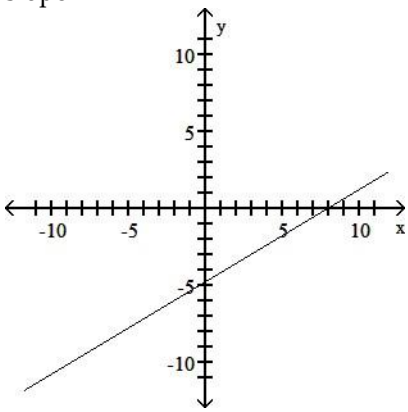
B) slope = $-\frac{5}{3}$



C) slope = $\frac{5}{3}$

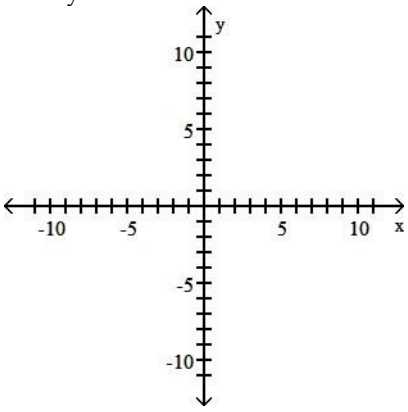


D) slope = $\frac{3}{5}$

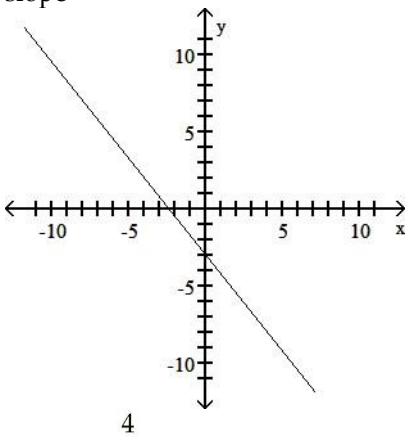


110) 4x - 5y = -12

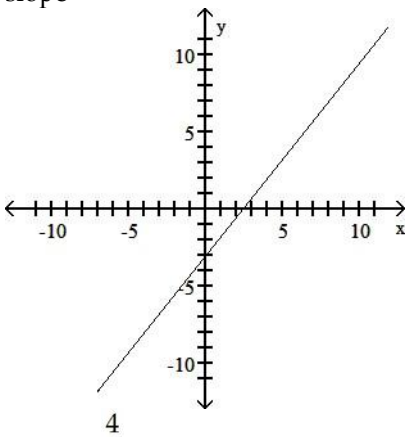
110) _____



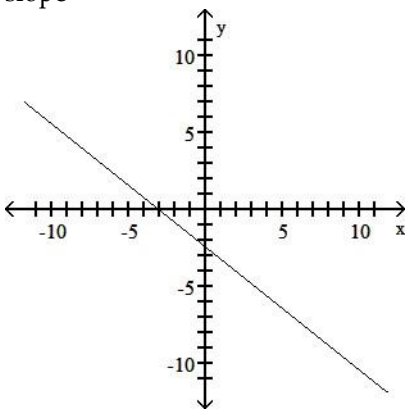
A) slope = $-\frac{5}{4}$



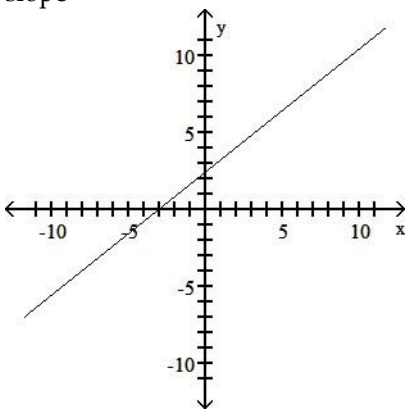
B) slope = $\frac{5}{4}$



C) slope = $-\frac{4}{5}$

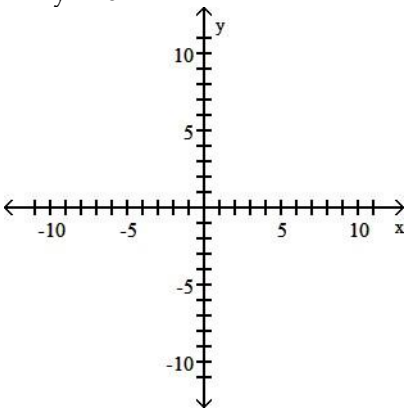


D) slope = $\frac{4}{5}$

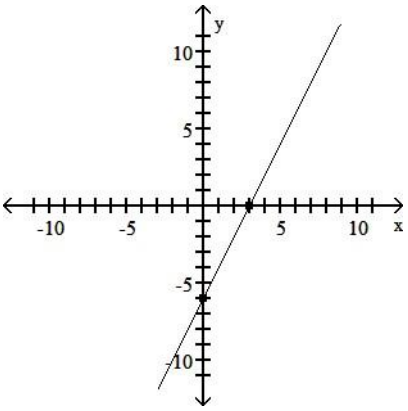


Graph the equation by plotting intercepts.

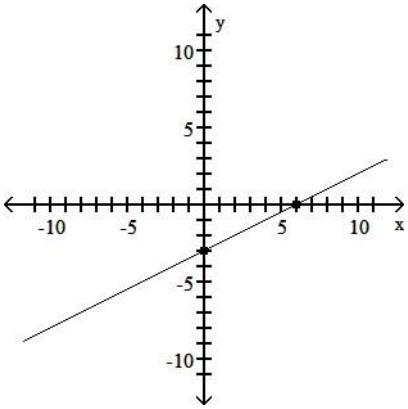
111) $2x - y = -6$ 111) _____



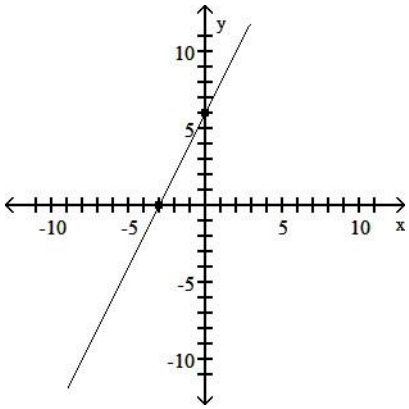
A)



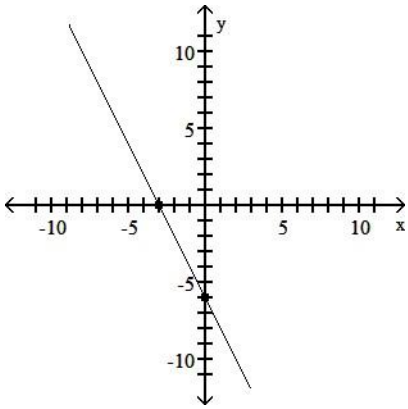
B)



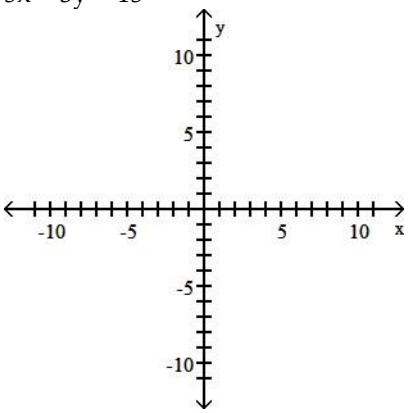
C)



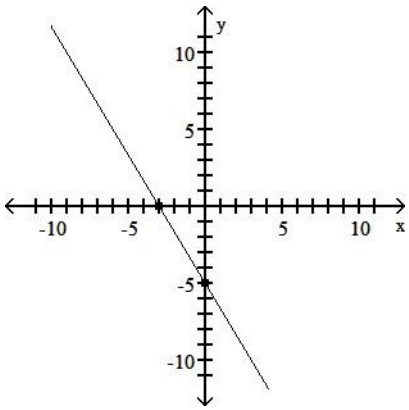
D)



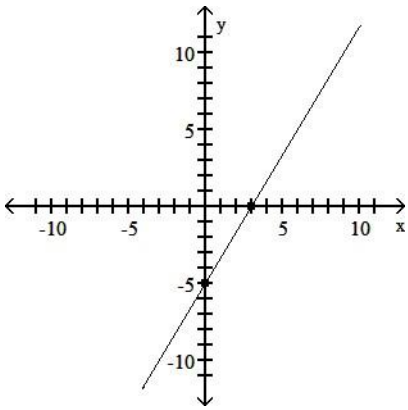
112) $5x + 3y = 15$ 112) _____



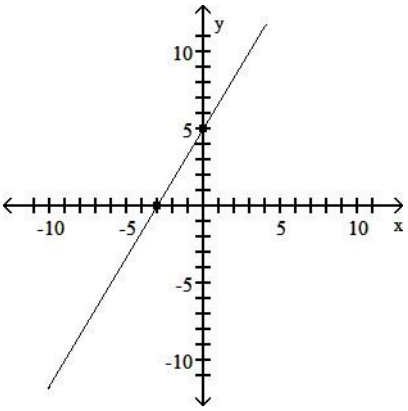
A)



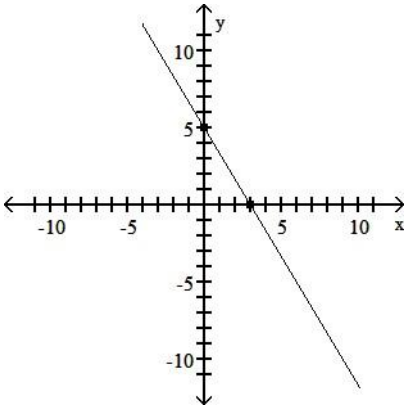
B)



C)



D)



Find the slope-intercept form of the equation of the line with the given properties.

113) Find the equation of the horizontal line passing through the point (-6, 5). 113) _____

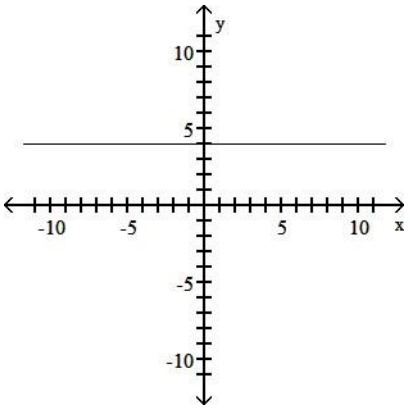
A) x = 5 B) y = 5 C) x = -6 D) y = -6

114) Find the equation of the vertical line passing through the point (6, -8). 114) _____

A) x = 6 B) x = -8 C) y = 6 D) y = -8

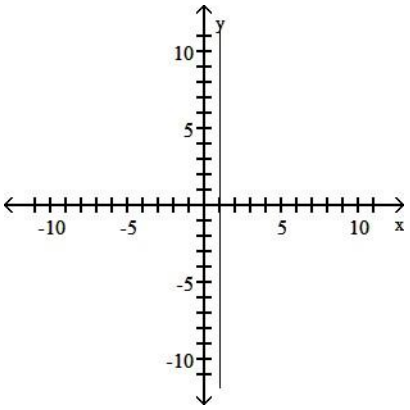
Find the equation of the given line.

115) 115) _____



A) y = -4 B) x = 4 C) x = -4 D) y = 4

116) 116) _____



A) x = -1 B) y = 1 C) x = 1 D) y = -1

Choose the appropriate response.

117) Parallel lines_____. 117) _____

A) always intersect at (0, 0)
B) have slopes that are negative reciprocals of each other
C) have the same slope
D) have opposite slopes

118) Perpendicular lines _____. 118) _____
A) have slopes that are negative reciprocals of each other
B) have the same slope
C) have opposite slopes
D) always intersect at a 45° angle

Decide whether the pair of lines is parallel, perpendicular, or neither.

119) 3x - 2y = -8 119) _____
2x + 3y = -10
A) parallel B) perpendicular C) neither

120) 3x - 4y = 9 120) _____
8x + 6y = -11
A) parallel B) perpendicular C) neither

121) 6x + 2y = 8 121) _____
18x + 6y = 26
A) parallel B) perpendicular C) neither

122) 4x - 2y = -7 122) _____
4x + 3y = -7
A) parallel B) perpendicular C) neither

123) x = 8 123) _____
y = -1
A) parallel B) perpendicular C) neither

Find the equation of the line described, and express your answer in the specified form.

124) Parallel to the line y = 2x; passes through the point (5, 7); slope-intercept form 124) _____
A) y - 7 = 2x - 5 B) y = 2x + 3 C) y = 2x - 3 D) y = 2x

125) Parallel to the line x - 3y = 5; passes through the point (0, 0); slope-intercept form 125) _____
A) $y = -\frac{1}{3}x$ B) $y = -\frac{4}{3}$ C) $y = \frac{1}{3}x$ D) $y = \frac{1}{3}x + 5$

126) Parallel to the line 2x - y = 2; passes through the point (0, 0); slope-intercept form 126) _____
A) $y = -\frac{1}{2}x$ B) $y = \frac{1}{2}x$ C) $y = -\frac{1}{2}x + 2$ D) y = 2x

127) Parallel to the line y = 6; passes through the point (1, 5); standard form 127) _____
A) y = 5 B) y = 1 C) y = 6 D) y = - 5

128) Parallel to the line x = 9; passes through the point (8, 7); standard form 128) _____
A) x = 7 B) x = 8 C) y = 9 D) y = 7

129) Parallel to the line 2x + 3y = 19; passes through the point (5, 0); standard form 129) _____

A) 3x + 2y = 0 B) 5x + 3y = 19 C) 2x - 3y = 10 D) 2x + 3y = 10

130) Parallel to the line 5x + 2y = 6; passes through the point (1, 0); standard form 130) _____
A) 5x + 2y = 2 B) 5x + 2y = 5 C) 2x - 5y = -5 D) 2x - 5y = 2

131) Perpendicular to the line y = -2x - 3; passes through the point (-3, -4); slope-intercept form 131) _____
A) $y = -2x - \frac{5}{2}$ B) $y = -\frac{1}{2}x - \frac{5}{2}$ C) $y = \frac{1}{2}x - \frac{5}{2}$ D) $y = 2x - \frac{5}{2}$

132) $\frac{1}{8}$ 132) _____
Perpendicular to the line y = x + 4; passes through the point (2, - 3); slope-intercept form
A) y = - 8x - 13 B) y = 8x - 13 C) $y = -\frac{1}{8}x - \frac{13}{8}$ D) y = - 8x + 13

133) Perpendicular to the line 2x - y = 4; passes through the point (0, 2); standard form 133) _____
A) $y = -\frac{1}{2}x + 2$ B) $y = \frac{1}{2}x + 2$ C) $y = \frac{3}{2}$ D) $y = -\frac{1}{2}x + 4$

134) Perpendicular to the line $x - 7y = 4$; passes through the point (3, 5); slope-intercept form 134) _____
A) y = - 7x + 26 B) y = 7x - 26 C) $y = -\frac{1}{7}x - \frac{26}{7}$ D) y = - 7x - 26

135) Perpendicular to the line y = 2; passes through the point (3, 1); standard form 135) _____
A) y = 1 B) x = 3 C) y = 3 D) x = 1

136) Perpendicular to the line x = -7; passes through the point (2, 3); standard form 136) _____
A) y = 3 B) x = 3 C) x = 2 D) y = 2

137) Perpendicular to the line 5x - 3y = 41; passes through the point (4, 7); standard form 137) _____
A) 5x + 3 = 5 B) 3x + 5y = 47 C) 3x - 5y = 47 D) 4x + 3y = 41

138) Perpendicular to the line 6x - 7y = -19; passes through the point (-9, -7); standard form 138) _____
A) -7x - 6y = 105 B) 6x + 7y = 105 C) -7x + 6y = 105 D) -7x + 6y = -19

139) Perpendicular to the line -4x - 5y = 4; passes through the point (0, -2); standard form 139) _____
A) -5x + 4y = 10 B) -5x + 4y = -8 C) -4x - 5y = 8 D) -4x - 5y = 10

Use slope to determine whether the quadrilateral with the given vertices forms a parallelogram. If it is a parallelogram, determine whether it is also a rhombus.

140) A(-3, 3), B(0, 6), C(2, -2), D(5, 1) 140) _____
A) No, it is not a parallelogram (nor is it a rhombus).
B) Yes, it is a parallelogram and it is also a rhombus.
C) Yes, it is a parallelogram but it is not also a rhombus.

141) A(1, 8), B(4, 6), C(6, -2), D(9, 1) 141) _____
A) Yes, it is a parallelogram but it is not also a rhombus.
B) No, it is not a parallelogram (nor is it a rhombus).
C) Yes, it is a parallelogram and it is also a rhombus.

1) D
2) C
3) B
4) D
5) C
6) B
7) D
8) D
9) A
10) C
11) A
12) B
13) A
14) B
15) A
16) B
17) B
18) B
19) A
20) D
21) D
22) A
23) B
24) A
25) B
26) C
27) C
28) D
29) A
30) A
31) A
32) A
33) B
34) B
35) A
36) A
37) B
38) C
39) C
40) C
41) C
42) C
43) B
44) C
45) D
46) C
47) D
48) A
49) C
50) D
51) D

52) A
53) A
54) D
55) C
56) C
57) B
58) C
59) A
60) A
61) C
62) D
63) C
64) B
65) D
66) B
67) B
68) B
69) C
70) C
71) A
72) C
73) D
74) A
75) B
76) A
77) D
78) B
79) A
80) D
81) C
82) B
83) B
84) B
85) D
86) D
87) C
88) C
89) A
90) B
91) B
92) D
93) A
94) C
95) A
96) A
97) B
98) B
99) D
100) C
101) D
102) B
103) D

104) A
105) D
106) B
107) B
108) C
109) A
110) D
111) C
112) D
113) B
114) A
115) D
116) C
117) C
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122) C
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125) C
126) D
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129) D
130) B
131) C
132) D
133) A
134) A
135) B
136) A
137) B
138) A
139) B
140) C
141) B