

Linear Functions

Rearrange to $y = mx + b$ if necessary and then sketch the graph of each line.

1) $y = \frac{4}{5}x$

2) $y = -\frac{4}{5}x + 5$

3) $y = \frac{2}{3}x$

4) $y = -\frac{1}{2}x + 1$

5) $4x - y = 3$

6) $3x - 5y = 10$

7) $4x + y = 5$

8) $x = -2$

9) $y - 4 = 0$

10) $-6x = -9y + 36$

$$11) -x - y = 4$$

$$12) 5y = 25 - 9x$$

$$13) x + 4y = 12$$

$$14) 3x - 2y = 10$$

$$15) 2x + y = -5$$

$$16) x - 2y = -4$$

$$17) 4x + 5y = 20$$

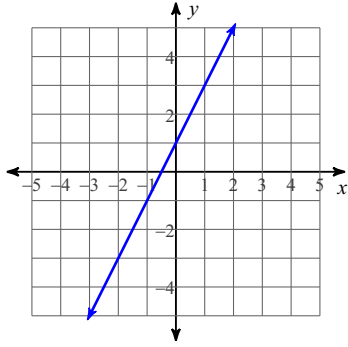
$$18) x + y = 4$$

$$19) 7x - 5y = 25$$

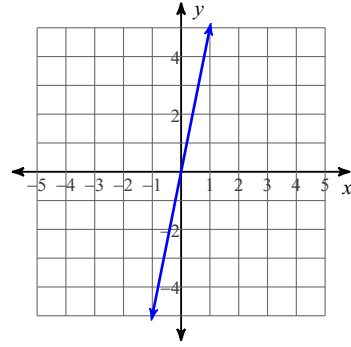
$$20) 5x + 4y = 0$$

Write the slope-intercept form of the equation of each line.

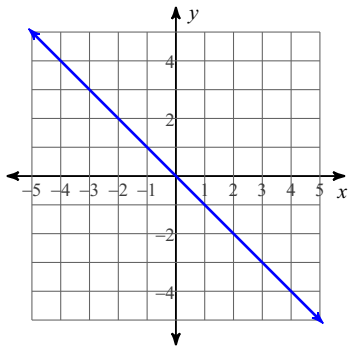
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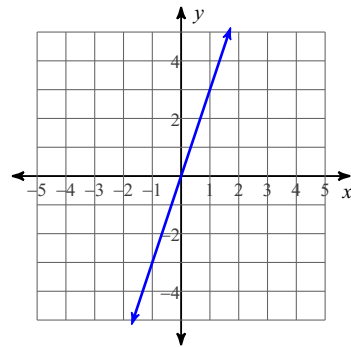
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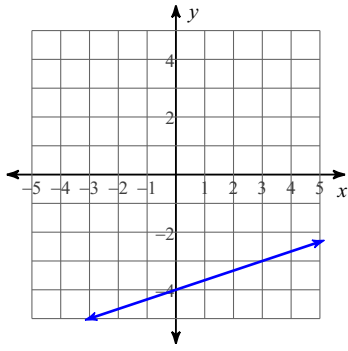
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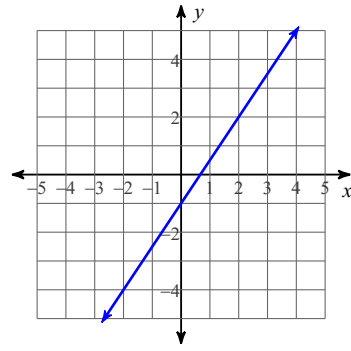
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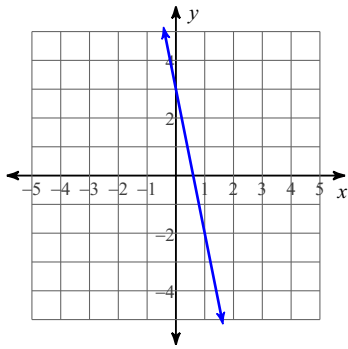
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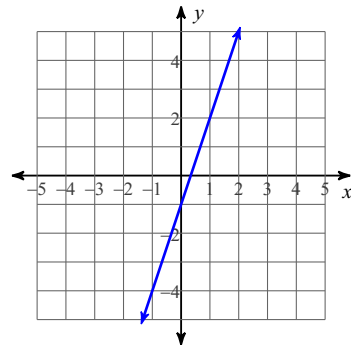
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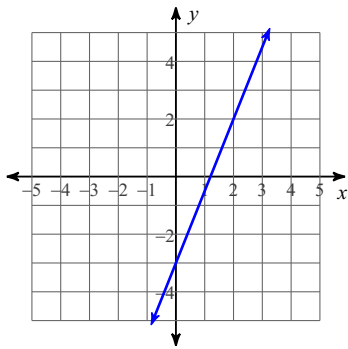
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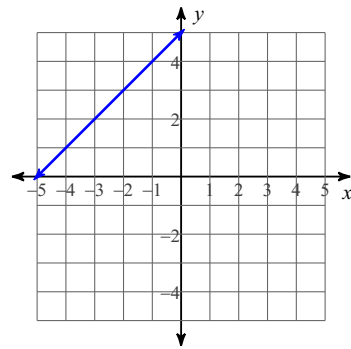
28)



29)



30)



Write the slope-intercept form of the equation of the line through the given points.

31) through: $(-1, 2)$ and $(0, -3)$

32) through: $(-1, 2)$ and $(0, 3)$

33) through: $(0, 2)$ and $(-4, -3)$

34) through: $(-3, 2)$ and $(2, -5)$

35) through: $(2, -3)$ and $(4, -3)$

36) through: $(0, -4)$ and $(-5, 5)$

37) through: $(1, -4)$ and $(-5, 3)$

38) through: $(5, 3)$ and $(1, -1)$

39) through: $(5, -3)$ and $(3, 0)$

40) through: $(2, -2)$ and $(0, 3)$

Write the slope-intercept form of the equation of the line through the given point with the given slope.

41) through: $(2, -5)$, slope = $-\frac{3}{2}$

42) through: $(2, -4)$, slope = -1

43) through: $(5, 5)$, slope = undefined

44) through: $(-5, -2)$, slope = $-\frac{1}{5}$

45) through: $(-2, -4)$, slope = 2

46) through: $(2, -1)$, slope = $-\frac{1}{2}$

47) through: $(5, -4)$, slope = $-\frac{4}{5}$

48) through: $(-2, 3)$, slope = $-\frac{7}{2}$

49) through: $(0, -1)$, slope = undefined

50) through: $(4, 5)$, slope = $\frac{7}{2}$

Sketch the graph of each linear function with the following intercepts and find the rule.

51) x -intercept = -3 , y -intercept = 3

52) x -intercept = 2 , y -intercept = 5

53) x -intercept = 3 , y -intercept = 2

54) x -intercept = 3 , y -intercept = -2

55) x -intercept = -2 , y -intercept = -2

56) x -intercept = 4 , y -intercept = 5

57) x -intercept = -2 , y -intercept = -5

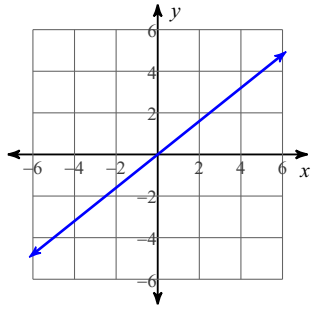
58) x -intercept = 4 , y -intercept = -1

59) x -intercept = 4 , y -intercept = -3

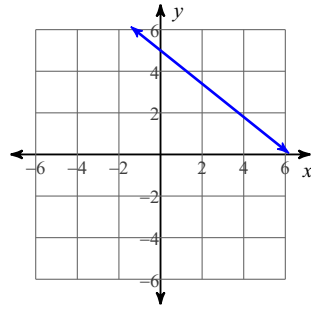
60) x -intercept = 4 , y -intercept = 1

Answers to Linear Functions (ID: 1)

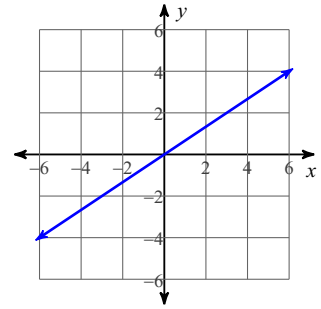
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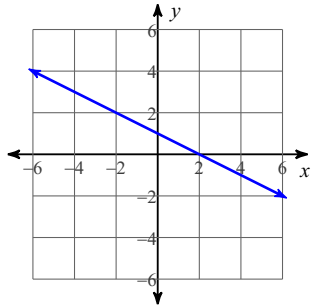
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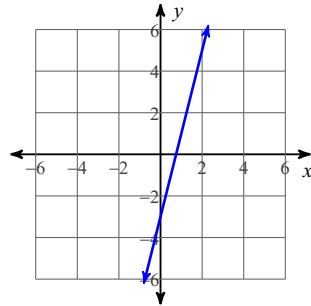
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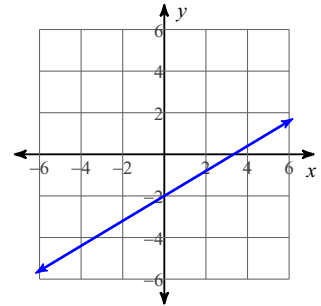
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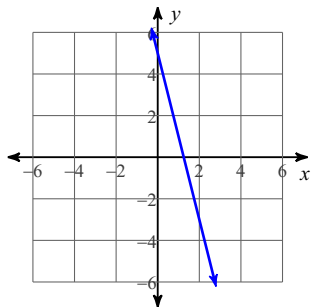
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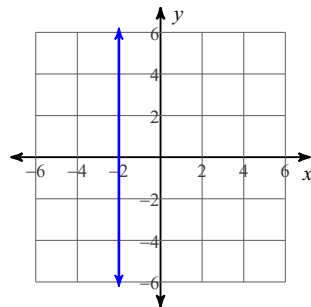
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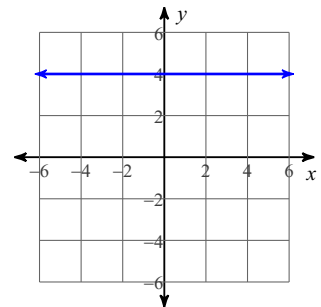
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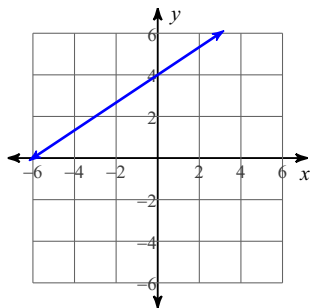
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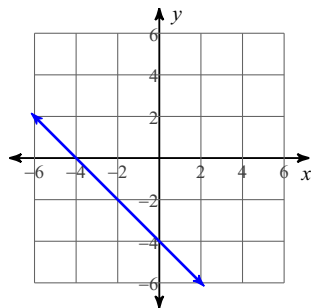
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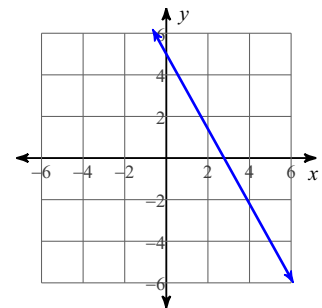
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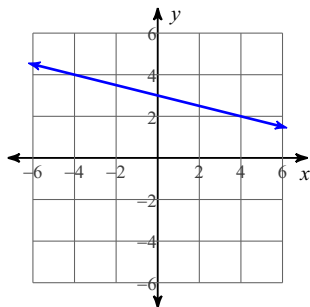
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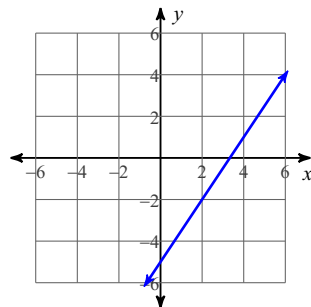
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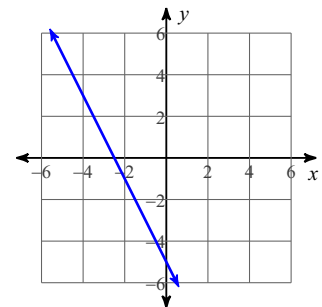
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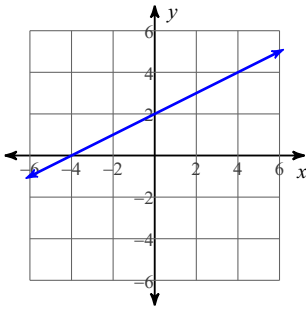
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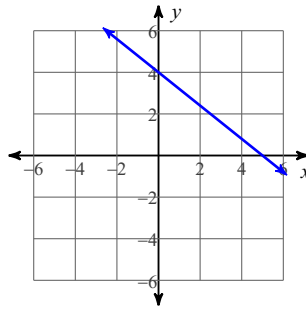
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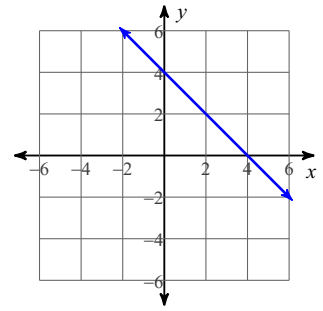
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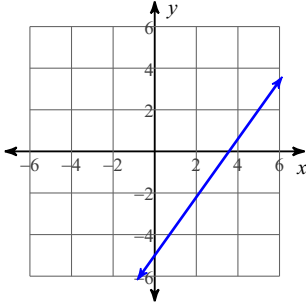
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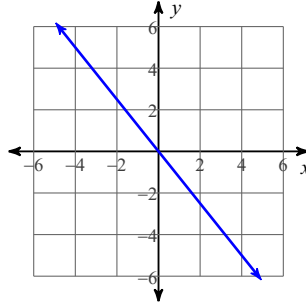
18)



19)



20)

21) $y = 2x + 1$

22) $y = 5x$

23) $y = -x$

24) $y = 3x$

25) $y = \frac{1}{3}x - 4$

26) $y = \frac{3}{2}x - 1$

27) $y = -5x + 3$

28) $y = 3x - 1$

29) $y = \frac{5}{2}x - 3$

30) $y = x + 5$

31) $y = -5x - 3$

32) $y = x + 3$

33) $y = \frac{5}{4}x + 2$

34) $y = -\frac{7}{5}x - \frac{11}{5}$

35) $y = -3$

36) $y = -\frac{9}{5}x - 4$

37) $y = -\frac{7}{6}x - \frac{17}{6}$

38) $y = x - 2$

39) $y = -\frac{3}{2}x + \frac{9}{2}$

40) $y = -\frac{5}{2}x + 3$

41) $y = -\frac{3}{2}x - 2$

42) $y = -x - 2$

43) $x = 5$

44) $y = -\frac{1}{5}x - 3$

45) $y = 2x$

46) $y = -\frac{1}{2}x$

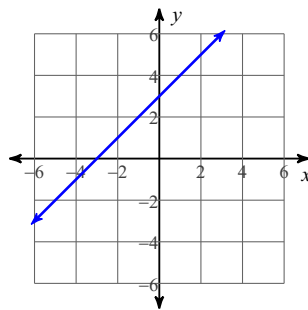
47) $y = -\frac{4}{5}x$

48) $y = -\frac{7}{2}x - 4$

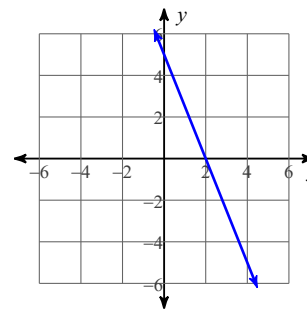
49) $x = 0$

50) $y = \frac{7}{2}x - 9$

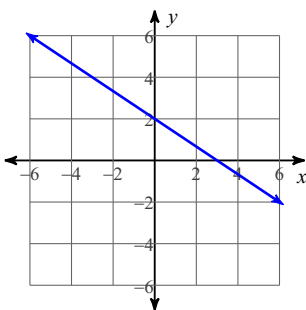
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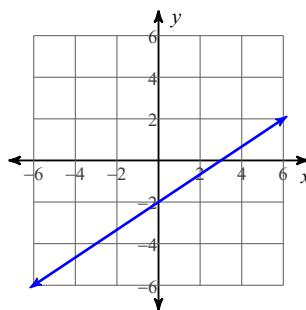
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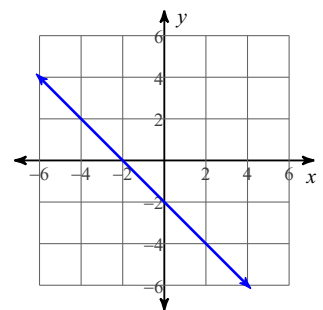
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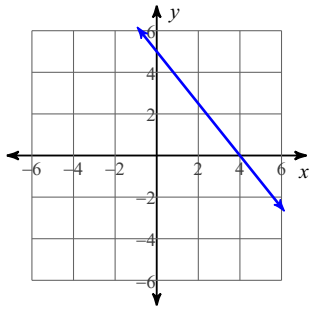
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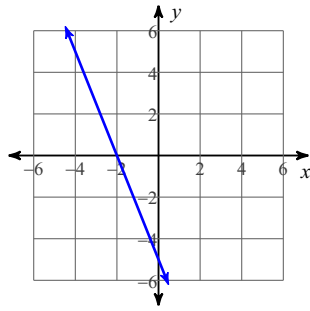
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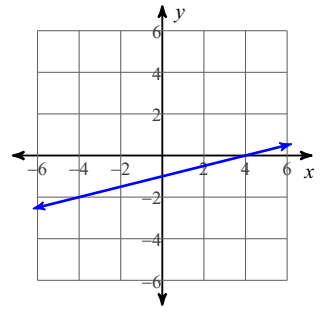
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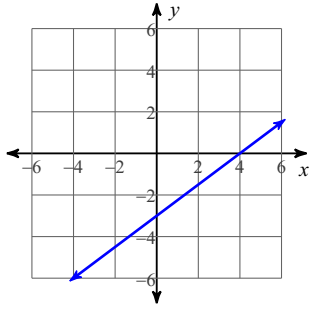
57)



58)



59)



60)

