Honors Algebra 1 Name_____

Unit 5 Writing Linear Equations Homework

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

1) $y - 4 = -3(x + 2)$

2) $3x - 7y = 0$

3) $10x - 3y = -15$

4) $y + 5 = \frac{7}{5}(x + 5)$

5) $y + 4 = -\frac{1}{3}(x + 3)$

Write the standard form of the equation of each line.

6) $y + 2 = -\frac{1}{6}(x - 1)$

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

8) $y = -\frac{7}{2}x + 5$

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

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

SECTION 1: Write the POINT-SLOPE form of the equation of the line through the given point with the given slope.

11) through: $(-4, -3)$, slope = $\frac{1}{4}$

12) through: $(-1, 3)$, slope = -2

13) through: $(-5, -5)$, slope = $\frac{1}{8}$

14) through: $(1, -4)$, slope = $-\frac{5}{2}$

Write the POINT-SLOPE form of the equation of the line through the given points.

15) through: $(0, 1)$ and $(2, 4)$

16) through: $(0, 1)$ and $(-5, -2)$

17) through: $(-3, -3)$ and $(0, 3)$

18) through: $(5, 0)$ and $(-5, 1)$

Write the SLOPE-INTERCEPT form of the equation of each line given the slope and y-intercept.

19) Slope = $-\frac{1}{2}$, y-intercept = 2

20) Slope = 0, y-intercept = 3

21) Slope = 2, y-intercept = 0

22) Slope = $-\frac{5}{3}$, y-intercept = 2

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

23) through: $(-1, 0)$, slope = 5

24) through: $(3, 4)$, slope = 3

25) through: $(-5, -3)$, slope $= \frac{8}{5}$

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

Write the SLOPE-INTERCEPT form of the equation of the line through the given points.

27) through: $(0, -3)$ and $(-3, -3)$

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

29) through: $(2, 0)$ and $(0, 1)$

30) through: $(-3, -4)$ and $(0, 1)$

Write the STANDARD form of the equation of each line given the slope and y-intercept.

31) Slope $= \frac{3}{2}$, y-intercept $= -1$

32) Slope $= -\frac{4}{3}$, y-intercept $= 4$

33) Slope $= 2$, y-intercept $= 1$

34) Slope $= -1$, y-intercept $= 0$

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

35) through: $(1, 5)$, slope $= 3$

36) through: $(1, 2)$, slope = undefined

37) through: $(-5, 2)$, slope $= -\frac{4}{5}$

38) through: $(2, 0)$, slope $= -\frac{5}{3}$

Write the STANDARD form of the equation of the line through the given points.

39) through: $(5, 4)$ and $(-1, 1)$

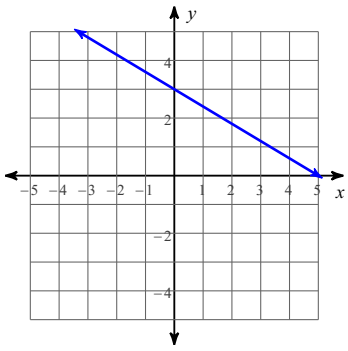
40) through: $(4, -5)$ and $(4, -2)$

41) through: $(-2, -1)$ and $(0, -5)$

42) through: $(1, 4)$ and $(-1, -3)$

SECTION 2: Write the SLOPE-INTERCEPT form of the equation of each line given the slope and y-intercept.

43)



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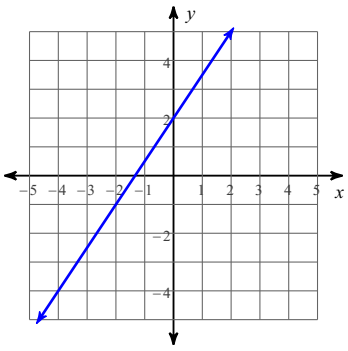

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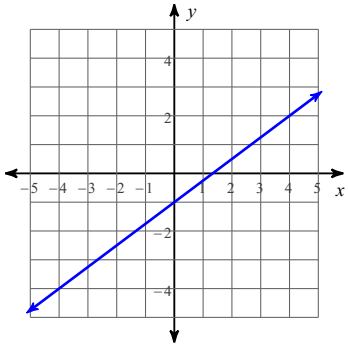

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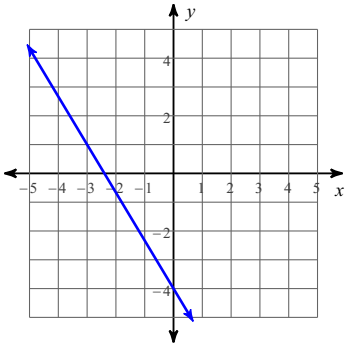

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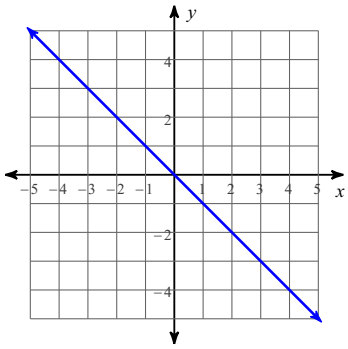

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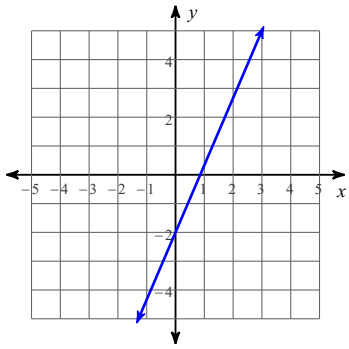

Write the STANDARD form of the equation of the line through the given point with the given slope.

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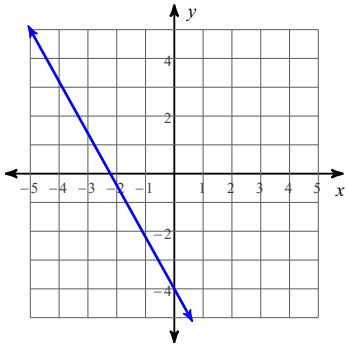

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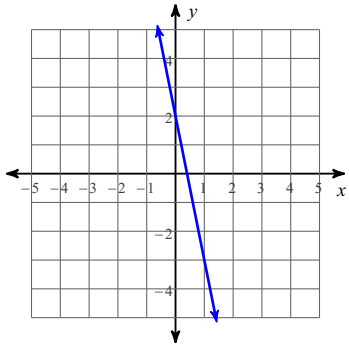

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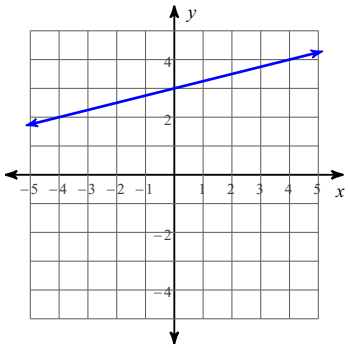

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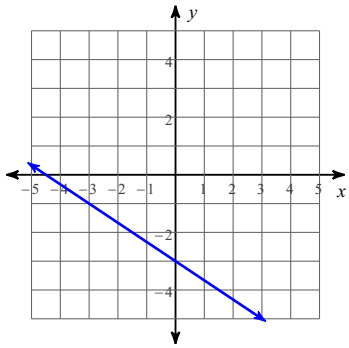

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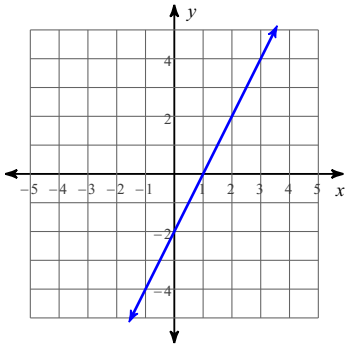

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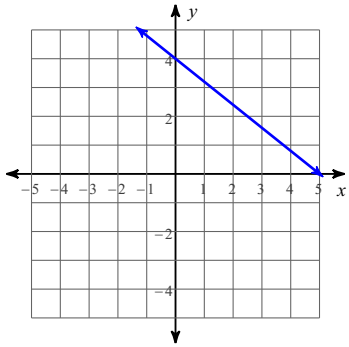

SECTION 3: Write the POINT-SLOPE form of the equation of the line described.

55) through: $(-2, 1)$, parallel to $y = -3x - 1$

56) through: $(-1, 1)$, parallel to $y = -4x - 1$

57) through: $(3, 4)$, parallel to $y = \frac{8}{3}x - 1$

Write the SLOPE-INTERCEPT form of the equation of the line described.

58) through: $(4, -2)$, parallel to $y = -\frac{3}{2}x - 1$

59) through: $(-4, 2)$, parallel to $y = \frac{1}{2}x$

60) through: $(2, -3)$, parallel to $y = 5$

Write the STANDARD form of the equation of the line described.

61) through: $(-2, -5)$, parallel to $x = 0$

62) through: $(-4, -4)$, parallel to $y = \frac{1}{2}x - 1$

63) through: $(5, 3)$, parallel to $y = \frac{4}{5}x - 2$

Write the POINT-SLOPE form of the equation of the line described.

64) through: $(3, 5)$, perp. to $y = -\frac{3}{4}x + 4$

65) through: $(-3, -2)$, perp. to $y = -\frac{4}{7}x + 2$

66) through: $(-3, 4)$, perp. to $x = 0$

Write the SLOPE-INTERCEPT form of the equation of the line described.

67) through: $(3, -1)$, perp. to $y = \frac{3}{2}x - 2$

68) through: $(-3, 2)$, perp. to $y = -3x - 1$

69) through: $(2, 4)$, perp. to $y = -5$

Write the STANDARD form of the equation of the line described.

70) through: $(-3, -1)$, perp. to $y = \frac{3}{2}x + 1$

71) through: $(-4, 3)$, perp. to $y = x + 1$

72) through: $(-4, -5)$, perp. to $y = -\frac{5}{9}x + 4$