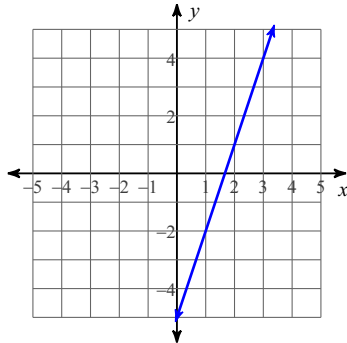SM2-A HW #4-9 (More Line Applications)          Date_____ Period_____
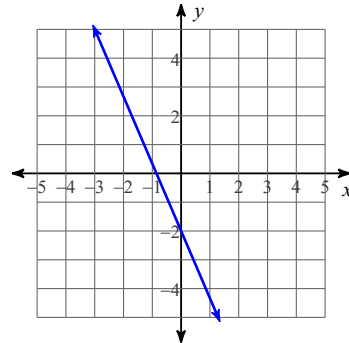
**Write the slope-intercept form of the equation of each line.**

1)



2)



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

3) through: $(-1, -4)$,  slope $= 6$

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

4) through: $(3, 2)$ and $(-5, 1)$

**Write the slope-intercept form of the equation of the line described.**

5) through: $(-4, -3)$,  parallel to $y = \dfrac{1}{4}x + 4$

6) through: $(3, 3)$,  perp. to $y = -\dfrac{3}{5}x + 5$

7) The cost of hiring a plumber, C, is a function of the time spent on the job, 't', in hours.  If the plumber charges a fee of $20 plus $29 per hour.

   What is the equation that models this situation?

8) A customer bought 5 hamburgers and 7 drinks and paid a total of $37.50

   What is the equation that models this situation?

9) Convert the following x-y pairs into "function notation".

(2, 3), (0, 5)

**Solve each equation. Show your work.**

10) $x + 4 - 4x = -20$

**Solve each equation ("one-step-rewrite")**

11) $84 = -6(4 + 3x)$

12) The perimeter of a rectangle is 45 feet. The length is 12 feet. What is the width?

13) The perimeter of a rectangal is given by the following formula:
$P = 2W + 2L$

Solve for W

14) The area of a trapezoid is given by the following formula. Solve for $b_1$:
$$A = \frac{1}{2}h(b_1 + b_2)$$

15) The area of a trapezoid is 255 square feet. If one base is 9 feet and other base is twice as long, what is the height?

16) The area of a trapezoid is 300 square feet. If the height is 12 feet and one base is 14 feet, what is the other base?

17) What property is shown below?

$5 \div 5 = 1$

18) What property is shown below?

$3 + (-3) = 0$

19) What property is shown below?

$$\frac{3}{3} * \frac{2}{5} \rightarrow \frac{6}{15}$$