

Name:

### Unit 1 – Day 17 Homework – Literal Equations and Percent's

Write the equation so that y is a function of x. (Solve for y!!)

1.  $5x + y = 9$   
 $\begin{array}{r} -5x \\ \hline y = 9 - 5x \end{array}$

2.  $6x + 2y = 10$   
 $\begin{array}{r} -6x \\ \hline 2y = 10 - 6x \\ \frac{2y}{2} = \frac{10}{2} - \frac{6x}{2} \\ y = 5 - 3x \end{array}$

3.  $12 = 9x + 3y$   
 $\begin{array}{r} -9x \\ \hline \frac{12 - 9x}{3} = \frac{3y}{3} \\ 4 - 3x = y \end{array}$

4.  $8 + 3y = 26 - 15x$   
 $\begin{array}{r} -8 \\ \hline 3y = 18 - 15x \\ \frac{3y}{3} = \frac{18}{3} - \frac{15x}{3} \\ y = 6 - 5x \end{array}$

5.  $-2y = 40x + 6$   
 $\begin{array}{r} -2 \\ \hline y = -20x - 3 \end{array}$

6.  $9x + 7y = -21 + 23x$   
 $\begin{array}{r} -9x \\ \hline 7y = -21 + 14x \\ \frac{7y}{7} = \frac{-21}{7} + \frac{14x}{7} \\ y = -3 + 2x \end{array}$

Flip to the back! ☺

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7. 16 is what percent of 64?

$$\frac{16}{64} = \frac{64(x)}{64}$$
$$x = .25 \quad \boxed{25\%}$$
$$\frac{16}{64} = \frac{x}{100}$$
$$\frac{1600}{64} = \frac{64x}{64}$$
$$x = 25\%$$

8. What is 34% of 168?

$$x = .34(168)$$
$$\boxed{x = 57.12}$$
$$\frac{x}{168} = \frac{34}{100}$$
$$5712 = 100x$$
$$\boxed{x = 57.12}$$

9. You are a diehard Chicago Blackhawks fan and have been wanting a Jonathan Toew's jersey your whole life. The jersey originally costs \$149.99. Since hockey is currently not in season, the store has a sale going on offering 35% off all jerseys!! You run right to the store to purchase a brand new Toew's jersey.

a. How much did you SAVE on the jersey?

$$149.99 \times .35 = \boxed{\$52.50}$$

b. How much did you PAY for the jersey?

$$149.99 - 52.50 = \boxed{\$97.49}$$



7. 16 is what percent of 64?

8. What is 34% of 168?

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