

## Four steps to setting up and solving a word problem:

1. Define a variable & write an equation
2. Solve the equation
3. Answer the question in a complete sentence
4. Does your answer make sense? Why?

**Ex. 1:** Jamie bought two quarts of milk and three pints of yogurt for \$4.68. A pint of yogurt costs 1.5 times the price of a quart of milk. How much is a quart of milk?

$$2n + 3p = 4.68$$

$$2n + 3(1.5n) = 4.68$$

$$2n + 4.5n = 4.68$$

$$\frac{6.5n}{6.5} = \frac{4.68}{6.5}$$

$$n = 0.72$$

\$0.72 / quart of milk

$p$  = pint of yogurt

$n$  = quart of milk

$$p = 1.5n$$

$M = \text{M\&Ms}$     $t = \text{Snickers}$     $k = \text{Crunch}$   
**Ex. 2:** The neighborhood candy store sold 336 candy items this week. Twice as many M&Ms were sold as Snickers, and three times as many Crunch bars were sold as Snickers bars. How many of each kind of candy were sold this week?

$$m + t + k = 336$$

$$2t + t + 3t = 336 \quad 2t = m$$

$$3t = k$$

$$\begin{array}{l}
 \text{M\&Ms} = 112 \\
 \text{Crunch} = 168 \\
 \text{Snickers} = 56
 \end{array}
 \quad
 \begin{array}{l}
 6t = 336 \\
 \underline{\quad} \\
 t = 56
 \end{array}$$

**Ex. 3:** I spent \$46 shopping yesterday when I bought a t-shirt, a jacket, and a pair of jeans. The jacket cost twice as much as the t-shirt. The jeans cost 6 dollars more than the t-shirt. How much did each item cost?

$$c + j + t = 46$$

$$\text{jacket} = c$$

$$\text{jeans} = j$$

$$\text{t-shirt} = t$$

$$2t + t + 6 + t = 46 \quad \text{jeans} = \$16$$

$$\text{jacket} = \$20$$

$$\text{T-shirts} = \$10$$

$$\begin{array}{r}
 4t + 6 = 46 \\
 \underline{-6} \quad \underline{-6} \\
 4t = 40
 \end{array}$$

$$2t = c$$

$$j = t + 6$$

$$\begin{array}{r}
 4t = 40 \\
 \underline{\quad} \\
 t = 10
 \end{array}$$

$$t = 10$$