

Notes: Writing Equations from Word Problems

1.) Karter had \$14 in his bank account before putting in his birthday earnings. He now has \$98. How much money did he earn at his birthday?

$$\begin{array}{r} b + 14 = 98 \\ -14 \quad -14 \\ \hline b = 84 \end{array}$$

Think- Pair Share

On your own: Think about different strategies that you can use to solve this problem! Be ready to share!

Try to solve by defining a variable, setting-up an equation, and solving for the variable!

Variable: b = birthday earnings

Equation: b + 14 = 98

Solution: \$84 (don't forget to label!)

2.) Larsen spent \$78 on three pairs of sandals for the summer. If each pair of sandals cost the same amount, write an equation that represents this situation and solve to find the cost of one pair of sandals.

$$\begin{array}{r} 3C = 78 \\ \div 3 \quad \div 3 \\ \hline C = 26 \end{array}$$

Variable: C = cost of one pair of sandals

Equation: 3C = 78

Solution: \$26

Can you think of another strategy to solve?

3.) Pamela earns \$18 for vacuuming and dusting her house. She spends \$4 on lunch and \$9 on a new dress. Write and solve an equation to show how much money Pamela has left.

$$\begin{array}{r} m + 4 + 9 = 18 \\ m + 13 = 18 \\ -13 \quad -13 \\ \hline m = 5 \end{array}$$

Variable: m = money left

Equation: m + 4 + 9 = 18

Solution: \$5

4.) Thomas had a bag of gum drops that he divided equally among his four friends. If each friend receives 56 gum drops, how many gum drops did he start with?

$$\begin{array}{r} \frac{g}{4} = 56 \cdot 4 \\ \hline g = 224 \end{array}$$

Variable: g = gum drops he started with

Equation:  $\frac{g}{4} = 56$

Solution: 224 gum drops

5.) Peter and Raul each purchased new baseball hats for practice. Raul's hat cost 3 times as much as Peter's hat did. Together, they spent \$56. How much did each boy spend?

$$\begin{array}{r} p + 3p = 56 \\ 4p = 56 \\ \div 4 \quad \div 4 \\ \hline p = 14 \end{array}$$

Variable(s): p = cost of Peter's hat  
3p = cost of Raul's hat

Equation: p + 3p = 56

Solutions: Peter: \$14 Raul: \$42

(14 · 3)