

Name _____

Date _____

Module #1:**Worksheet 3e: Solving Problems with Linear Equations in 1 Variable****View Tutorial 3e**↔ **Objective:** *To practice translating word problems to symbolic form and solving.****Word Problems*****To solve word problems:****Step 1:** *Read the problem carefully*

- Underline key phrases (examples: “more than”, “the difference of”)
- Circle the question being asked

Step 2: *Choose a variable to represent what you are looking for in the problem*

- Locate the question in the problem
- Form a “Let” statement such as “Let $x =$ _____”
 - It is possible to have more than one “Let” statement

Step 3: *Form the equation*

- An “equals” “=” must be present to be an equation

Step 4: *Solve the equation***Step 5:** *Check to see if the solution makes sense!*

Maria bought a hit CD. The cost of the CD is \$18. Her friend bought a cassette of the same music. If the CD cost twice as much as the cassette, what was the cost of the cassette?

Step 1: After reading:

Underline “cost of CD is \$18”, and “CD cost twice as much as the cassette”. Circle “what was the cost of the cassette?”

Step 2: Choose a variable and create “Let” statements:

Question: “what’s the cost of the cassette?” Let n = cost of the cassette in dollars.
 Information about the CD: “twice as much” Let $2n$ = cost of the CD in dollars.

Step 3: Form the equation:

- “Is” always means “equals” “=”
- The cost of the cassette must equal the \$18.

$$2n = 18$$

Step 4: Solve:

$$2n = 18$$

$$\frac{2n}{2} = \frac{18}{2}$$

$$n = 9$$

$$n = 9 \text{ or } \$9.00$$

Step 5: Check

$$\text{Check: } 2(9.00) = 18 \text{ YES!}$$

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Module #1:

Worksheet 3e: Solving Problems with Linear Equations in 1 Variable

Write an equation and solve each problem:

1. Hunter gave thirteen CD's to his younger cousin. He now has 45. How many did he have originally?

Equation: _____ Solution: _____

2. Reesa bought a shirt. Later that day she bought jeans for \$40.00. If she spent \$72.00 in total, what did the shirt cost?

Equation: _____ Solution: _____

3. Collette had \$97.35 before shopping for shoes. She bought two pairs of shoes and returned home with \$46.50. What was the cost for both shoes together?

Equation: _____ Solution: _____

3. Uriah has twice as much money as Cassius. Together they have \$105. How much does Uriah have?

Equation: _____ Solution: _____

4. A soccer team played 20 games in a season. If they won 4 times as many games as they lost, how many games did they win?

Equation: _____ Solution: _____