Name: _____ Date: _____ Period: _____

4.5 Systems of Linear Equations Problem Solving DAY ONE CYU

CONCEPTS	BASIC	INTERMEDIATE	ADVANCED
Reading carefully and checking what makes sense	1, 2		
Determining variables		3, 4	
Writing equations		3, 4	
Solving systems		3, 4	
Writing answers in terms of the problem		3, 4	
Checking answers to systems	5, 6	3, 4	

Without actually solving each problem, choose each correct solution by deciding which choice satisfies the given conditions.

1. The length of a rectangle is 3 feet longer than the width. The perimeter is 30 feet. Find the dimensions of the rectangle.
   - A. length 8 ft, width 5 ft
   - B. length 8 ft, width 7 ft
   - C. length 9 ft, width 6 ft

2. An isosceles triangle, a triangle with at least two sides of equal length, has a perimeter of 20 inches. Each of the equal sides is one inch longer than the third side. Find the lengths of the three sides.
   - A. 6 in, 6 in, 7 in
   - B. 7 in, 7 in, 6 in
   - C. 6 in, 7 in, 8 in

Determine the variables, write the equations, solve the problem, and write your answer in a complete sentence in terms of the problem. Finally, show that your checked your answer.

3. Two numbers total 83 and have a difference of 17. Find the two numbers

   Variables

   Equations

   Solve

   Check

   Solution

4. The sum of two numbers is 76 and their difference is 52. Find the two numbers.

Variables

Equations

Solve

Check

Solution

Check the following ordered triples in the systems of three variables to determine if the answer is a solution or not. Show all work for full credit.

5.
$$x - y + z = -4$$
$$3x + 2y - z = 5 \quad ; (-1, 5, 2)$$
$$-2x + 3y - z = 15$$

6.
$$x + y - z = -1$$
$$-4x - y + 2z = -7; (3, 3, 1)$$
$$2x - 2y - 5z = 7$$

CYU Reflection: *How far can you go: basic, intermediate, or advanced?*
Rate your mastery level!
How confident are you with the skills this CYU covered? Circle the score you would give yours elf.

1 2	3 4 5	6 7	8
Basic	Intermediate	Advanced	Solved ALL!