

Name _____

8A; Algebra 1

Date _____

Period _____

How Do We Use Two Variables To Solve Word Problems?

1) The manager of a student bowling team bought 3 shirts and 4 caps for \$66. At another time, he bought 7 shirts and 3 caps for \$116 at the same unit prices as for the first purchase. What is the cost of a shirt and a cap?

2) The sum of two numbers is 187. The larger number is 9 more than the smaller number. Find both numbers.

3) If purchased before the game, tickets to a pre-season high school baseball game cost \$1.00. If purchased at the gate, the tickets cost \$1.50. For a particular game, 500 tickets were sold and the total receipts were \$587.50. How many tickets were purchased before the game and how many tickets were purchased at the gate?

4) The perimeter of a rectangle is 50 centimeters. The length is 9 centimeters more than the width. Find the length and the width of the rectangle.

5) Two angles are supplementary. The larger angle measures 15° less than twice the smaller. Find the degree of each angle.

6) Linda spent \$4.50 for stamps to mail packages. Some were 39-cent stamps, and the rest were 24-cent stamps. The number of 39-cent stamps was 3 less than the number of 24-cent stamps. How many of each kind did Linda buy?

7) At a fast-food restaurant, a family bought 4 hamburgers and 3 bags of french fries for \$8.40. At the same time, a family traveling with them bought 5 hamburgers and 2 bags of french fries for \$9.10. What was the cost of one hamburger and what was the cost of one bag of french fries?

8) A silver medal sold for \$75 and a bronze medal for \$55. The total cost for 120 medals was \$8,600. How many medals of each kind were bought?

9) David bought 7 shirts of equal value and 4 ties of equal value at a store and paid \$150. At the same store, Tom bought 3 of the same shirts and 5 of the same ties and paid \$84. What was the price of each shirt and tie?

10) Two angles are complementary. The measure of the larger angle is 30° more than the measure of the smaller angle. Find the measure of each angle.

****Challenge****

11) The sum of two number is 13. If twice the larger number is increased by 2, the result is equal to 5 times the smaller number. Find the numbers.