Name _____ Class _____ Date _____

6-4 Practice

Form G

Applications of Linear Systems

Solve each word problem

1. You have $6000 to invest in two stock funds. The first fund pays 5% annual interest and the second account pays 9% annual interest. If after a year you have made $380 in interest, how much money did you invest in each account?

2. During a sale at the local department store, you buy three sweatshirts and two pairs of sweatpants for $85.50. Later you return to the same store and buy three more sweatshirts and four more pairs of sweatpants for $123. What is the sale price of each sweatshirt and each pair of sweatpants?

3. The sum of two numbers is 27. The larger number is 3 more than the smaller number. What are the two numbers?

4. One plane at 520 feet is ascending at a rate of 40 feet per minute, while another plane at 3800 feet is descending at a rate of 120 feet per minute. How long will it take the two planes to be at the same altitude?

5. The perimeter of a rectangle is 24 in. and its length is 3 times its width. What are the length and the width of the rectangle?

6. You are getting ready to move and have asked some friends to help. For lunch, you buy the following sandwiches at the local deli for $30: six tuna sandwiches and six turkey sandwiches. Later at night, everyone is hungry again and you buy four tuna sandwiches and eight turkey sandwiches for $30.60. What is the price of each sandwich?

7. You have a cable plan that costs $39 a month for a basic plan plus one movie channel. Your friend has the same basic plan plan plus two movie channels for $45.50. What is the basic plan charge that you both pay?

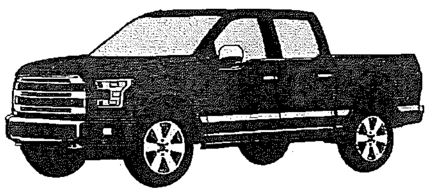
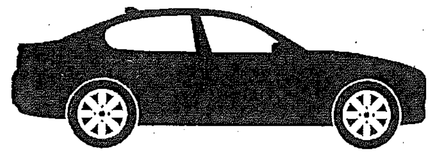
8. At an all-you-can-eat barbeque fundraiser that you are sponsoring, adults pay $6 for a dinner and children pay $4 for a dinner. 212 people attend and you raise $1128. What is the total number of adults and the total number of children attending?

   a. What is a system of equations that you can use to solve this problem?

   b. What method would you use to solve the system? Why?

UDENT NAME:
R WASH - STANDARD FORM

Can you find how long it takes to wash each type of vehicle?

CAR WASH SCENARIO 1	CAR WASH SCENARIO 2
Washing 2 cars and 3 trucks takes 130 min 	Washing 2 cars and 5 trucks takes 190 min. 

1. Define variables:

3. Write an equation for Scenario 1:

4. Write an equation for Scenario 2:

Elimination Method

Step 1: Write equations on top of each other * you may need to multiply to get opp. coefficients ***Step 2***: Add or Subtract like terms so 1 variable cancels ***Step 3***: Solve for one variable ***Step 4:*** Use variable to solve for other. ***Step 5:*** Write solution as ordered pair (x, y)	