

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Period: \_\_\_\_\_

*Sec 1H Unit 4 Day 4 - Writing Systems of Equations Classwork*

1. Harry Potter Snacks:

- a) *What would your variables be in this situation?*
- b) *Write a system of equations to help you solve the problem without guessing and checking.*
- c) *Solve the system:*

2. Coin Star: Write down your best estimates of

- a) What kinds of coins there are:
- b) How many total coins there are:
- c) What the coins are worth all together:
- d) Now copy down the actual value of the coins:
- e) Give a possible solution for how many of each coin there are:
- f) Copy down the actual total number of coins:
- g) Revise your possible answer from part e) to find a possible solution:
- h) Is your answer in part g) the ONLY solution?      Prove it:

3. Stacking Cups:

- a) What do you notice?
- b) What do you wonder?
- c) What other information would you like to know?
- d) What would your variables be in this situation?
- e) Write a system of equations to help you solve the problem without guessing and checking:
- f) Solve the system:

4. After no small amount of controversy on the World Wide Web, it has been proven that Double Stuf Oreos do actually contain twice the filling of regular Oreos.

Two Double Stuf cookies have 140 calories. Three regular Oreos have 160 calories.

If I scrape out the filling from Double Stuf Oreos, and only eat the wafers, but my husband eats all the fillings and no wafers, who is getting more calories?

a) *What would your variables be?*

b) *Write a system of equations to help you solve the problem without guessing and checking.*

c) *Solve the system and answer the question:*

**Define variables and write a system of equations to help you solve these:**

5. If 10 regular Oreos weigh 113 grams, and 10 Double Stuf Oreos weigh 145 grams, what does the filling weigh? What does each wafer weigh?

a) *What would your variables be?*

b) *Write a system of equations to help you solve the problem without guessing and checking.*

c) *Solve the system and answer the questions:*