Date:_____ Block:_____Name:_____

System of equations Word Problems

- Complete on a separate piece of paper.
- Find two equations and then solve using substitution or elimination.

1. The charges for a one day rental for two dealers are described by the equations, where **c** represents cost in dollars and **n** represents the number of kilometres driven.

   Dealer A: $c = 0.33n + 15$
   Dealer B: $c = 0.25n + 21$

   a) Describe each plan.
   b) When do both plans cost the same amount?
   c) Which plan would you chose if you intended to drive about 90 km?

2. One group of people purchased 10 hot dogs and 5 soft drinks at a cost of $12.50. A second group bought 7 hot dogs and 4 soft drinks at a cost of $9.00. What is the cost of a single hot dog? What is the cost of a single drink?

3. The sum of two numbers is 45. One number is 4 times the other. Find the numbers.

4. One number is 7 less than another number. The sum of the two numbers is 63. Find the numbers.

5. A jacket costs 4 times as much as a pair of shorts. Together they cost $75. How much is each item?

6. Joseph is 9 years older than Susan. Their ages total 41. How old is each person?

7. The Ski Club has 47 members. There are 25 more downhill skiers than there are cross-country skiers. How many downhill skiers are there?

8. Three times the larger of two numbers is equal to four times the smaller. The sum of the numbers is 21. Find the two numbers.

9. Two records and three CDs cost $31. Three records and two CDs cost $29. Find the cost of each record and each CD.

10. A group of students go out for lunch. If two have hamburgers and five have hot dogs, the bill will be $8.00. If five have hamburgers and two have hot dogs, the bill will be $9.50. What is the price of the hamburger?

11. A shipment of TV sets, some weigh 30 kg each and the others weighing 50 kg each, has a total weight of 880 kg. If there are 20 TV sets all together, how many weigh 50 kg?

12. At a local grocery store, 5 oranges and 14 bananas costs $1.30, whereas 8 oranges and 9 bananas costs $1.41. Determine the cost of each orange and each banana.

13. Lisa purchased 5 pencils and 3 crayons at the local supermarket for a total of $8.52. Burt purchased 2 pencils and 4 crayons for a total of $5.76. Determine the individual cost of each pencil and crayon.