Write a system of **two equations** with **two variables** and solve each of the following problems. Show your **complete** solution **neatly organized**.

1. The sum of two numbers is 20. The first number is 4 less than three times the second. What are the numbers?

2. The sum of two numbers is 15. Their difference is 9. What are the numbers?

3. A coin collection consists of ordinary dimes and nickels and is worth a total of $3.20. If there are 40 coins in the collection, then how many coins of each type are there?

4. A collection of ordinary dimes and quarters is worth $8. The number of dimes is one less than two times the number of quarters. How many coins of each type are in the collection?

Write a system of **two equations** with **two variables** and solve each of the following problems. Show your **complete** solution **neatly organized**.

5. Bill and Sue earned a total of $1000. If Sue earned $25 more than 4 times the amount earned by Bill, then how much did each person earn?

6. Coffee worth $1.50 per pound is mixed with coffee worth $1.80 per pound to produce a 50 pound blend worth $1.59 per pound. How many pounds of each type of coffee is used?

7. $200 is to be divided between two people so that one receives $25 less than four times what the other receives. How much will each person receive?

Algebra I   Class Worksheet #4   Unit 9   page 3

Write a system of **two equations** with **two variables** and solve each of the following problems. Show your **complete** solution **neatly organized**.

8. Mary invested $5000, part at 3% per year and the rest at 4% per year. If the total interest for the year was $185, then how much was invested at each rate?

9. A chemist has one solution that is 35% acid and another that is 10% acid. How much of each solution should she use to make 50cc of a solution that is 25% acid?

10. Six burgers and four orders of fries cost $8.70. Three burgers and five orders of fries cost $6.60. How much does each item cost?