Name: Date: Period:

Solve the systems of equations on a separate piece of paper. Don't forget:

LET Statements
EQUATIONS
To **SOLVE** your Equations
To **CHECK** your answers in EACH equation
Your **STATEMENT** answering the question being asked

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1. The sum of two numbers is 50. The first number is 43 less than twice the second number. Write and solve a system of equations to find the two numbers.

2. A jar contains *n* nickels and *d* dimes. There are 20 coins in the jar, and the total value of the coins is $1.40. How many nickels and how many dimes are in the jar? (Hint: Nickels are worth $0.05 & dimes are worth $0.10).

3. At the movies, customer #3598 bought 3 large popcorn buckets and 2 small drinks for a total of $21.00. At the same movie theater, customer # 3599 bought 2 large popcorn buckets and 4 small drinks for a total of $22.00. Write and solve a system of equations to find the cost of a large popcorn bucket and the cost of a small drink.

4. The length of a rectangle is 3 more than its width. The perimeter of the rectangle is 58 cm. Write and solve a system of equations to determine the dimensions of the rectangle.

5. Carla and Benicio work in a men's clothing store. They earn commission from each suit and each pair of shoes they sell. For selling 3 suits and one pair of shoes, Carla has earned $47 in commission. For selling 7 suits and 2 pairs of shoes, Benicio has earned $107 in commission. How much do the salespeople earn for the sale of a suit and a sale of a pair of shoes?

6. Tickets to a movie cost $7.25 for adults and $5.50 for students. A group of friends purchased 8 tickets for $52.75. Determine the total number of adult and student tickets.

7. You are running a concession stand at a football game selling hot dogs and sodas. Each hot dog costs $1.50 and each soda costs $0.50. At the end of the night you made a total of $78.50. You sold a total of 87 hot dogs and sodas combined. How many hot dogs were sold and how many sodas were sold?

8. A used book store also started selling used CDs and videos. In the first week, the store sold a combination of 40 CDs and videos. They charged $4 per CD and $6 per video and the total sales were $180. Determine the total number of CDs and videos sold.