Solve each of the following problems algebraically (one variable solution). Show your work neatly organized in the space provided.

1. One number is six times another. Their sum is 84. What are the numbers?

2. One number is five more than four times another. Their sum is 100. What are the numbers?

3. One number is two less than three times another. Their sum is 98. What are the numbers?

4. Tom and Mary received a total of $200. The amount that Tom received was $20 more than two times the amount that Mary received. How much did each person receive?

5. Kim and Andy earned a total of $600. The amount that Kim earned was $30 less than two times the amount that Andy earned. How much did each person earn?

Solve each of the following problems algebraically (one variable solution). Show your work neatly organized.

6. The length of a rectangle is two inches more than its width. The perimeter of the rectangle is 48 inches. What are the dimensions of the rectangle?

7. The length of a rectangle is two times its width. The perimeter of the rectangle is 48 inches. What are the dimensions of the rectangle?

8. The length of a rectangle is three inches less than twice the width. The perimeter of the rectangle is 42 inches. What are the dimensions of the rectangle?

9. The length of a rectangle is three **inch**es more than twice the width. The perimeter of the rectangle is 6 **feet**. What are the dimensions of the rectangle?

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Solve each of the following problems algebraically (one variable solution). Show your work neatly organized.

10. A collection of ordinary nickels and dimes is worth $3.50. If the number of dimes is five more than the number of nickels, then how many coins of each type are there in the collection?

11. A collection of ordinary quarters and dimes is worth $3.00. If the number of quarters is two less than the number of dimes, then how many coins of each type are there in the collection?

12. A collection of ordinary nickels and quarters is worth $4.50. If the number of quarters is two more than three times the number of nickels, then how many coins of each type are there in the collection?

13. A collection of ordinary dimes, nickels and quarters is worth $4. The number of nickels is 3 times the number of quarters, and the number of dimes is 5 more than the number of quarters. How many coins of each type are there in the collection?