

For each of the following problems, write a system of equations and solve.

1. The sum of two numbers is 34 and their difference is 14. Find each of the numbers.
2. The sum of two numbers is 80. Their difference is 22. Find each of the numbers.
3. The sum of two numbers is 15 less than twice the first number. Their difference is 5 less than twice the second number. Determine each of the numbers.
4. The sum of two numbers is 3 more than four times the first number. Their difference is 10 less than twice the second number. Determine each of the numbers.
5. The sum of two numbers is 10 less than three times the first number. Their difference is 5 less than twice the second number. Determine each of the numbers.
6. The sum of two numbers is 13 more than twice the first number. Their difference is 15 less than the second number. Determine each of the numbers.

7. The sum of two numbers is 65. The larger number is ten less than twice the smaller number. Determine the value of each number.

8. The sum of two numbers is 70. The larger number is four more than twice the smaller number. Determine the value of each number.

9. The perimeter of a rectangle is 98 cm. The length of the rectangle is 9 cm more than four times the width. Determine the dimensions of the rectangle.

10. The perimeter of a rectangle is 37 cm. The length of the rectangle is 1 cm less than twelve times the width. Determine the dimensions of the rectangle.

11. The perimeter of a rectangle is 84 m. The length is $2\frac{1}{2}$ times the width. Determine the dimensions of the rectangle.

12. The perimeter of a rectangle is 20 cm. The length of the rectangle is 3 cm less than $2\frac{1}{4}$ times the width. Determine the dimensions of the rectangle.