

## Solving a System of Equations

Solve using the substitution method.

1.  $y = 5 - x$   
 $2x + 3y = 12$  \_\_\_\_\_

2.  $x + y = 6$   
 $x + 4y = 3$  \_\_\_\_\_

Solve using the addition method.

3.  $2x + 5y = 2$   
 $3x - 2y = 3$  \_\_\_\_\_

4.  $6x + 3y = 0$   
 $8x + 5y = 8$  \_\_\_\_\_

5.  $x + y = 6$   
 $x - y = 10$  \_\_\_\_\_

6.  $-x - y = 15$   
 $4x - y = -5$  \_\_\_\_\_

Solve.

7.  $x - 3y = 9$   
 $3x + y = 7$  \_\_\_\_\_

8.  $x + y = 4$   
 $2x - y = 5$  \_\_\_\_\_

9.  $x + 2y = 1$   
 $2x - 3y = 16$  \_\_\_\_\_

10.  $3x - y = -13$   
 $x + 5y = 17$  \_\_\_\_\_

11.  $2x + 3y = 12$   
 $y - 2x = 4$  \_\_\_\_\_

12.  $5x + 2y = 22$   
 $x + 2y = 14$  \_\_\_\_\_

13.  $y = 7 - 2x$   
 $5y = -3x + 7$  \_\_\_\_\_

14.  $x - y = 9$   
 $3x + y = 11$  \_\_\_\_\_

Translate to a system of equations and solve.

15. The sum of two numbers is 14. Six times the first number minus three times the second number is 3. Find the numbers.

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16. The sum of two numbers is 57.4. One number is six times the other. Find the numbers.

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17. The sum of two numbers is 56. The difference is 22. Find the numbers.

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18. Tanisha has 70 coins, all quarters and dimes. There are 30 more quarters than dimes. Find the number of each type of coin.

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