

Name: _____
Homework

SYSTEMS OF EQUATIONS *Applications*

Many real world problems can be modeled and solved using a system of equations. Use the process below to solve these problems.



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| <p>1. The sum of two numbers is 30 and their difference is 12. Find the two numbers.</p> | <p>2. The sum of two numbers is 24 and their difference is 2. What are the numbers?</p> |
| <p>3. The difference between two numbers is 9. The first number plus twice the other number is 27. Find the two numbers.</p> | <p>4. The sum of two numbers is 36. Twice the first number minus the second is 6. Find the numbers.</p> |
| <p>5. The sum of two numbers is 20. The difference between three times the first number and twice the second is 40. Find the two numbers.</p> | <p>6. The sum of two numbers is 25. One number is twice the second number plus seven. What are the two numbers?</p> |

7. The cost of 3 boxes of envelopes and 4 boxes of notebook paper is \$13.25. Two boxes of envelopes and 6 boxes of notebook paper cost \$17. Find the cost of each.

8. The cost of 12 oranges and 7 apples is \$5.36. Eight oranges and 5 apples cost \$3.68. Find the cost of each.

9. Gabby and Sydney bought some pens and pencils. Gabby bought 4 pens and 5 pencils for \$6.71. Sydney bought 5 pens and 3 pencils for \$7.12. Find the cost of each.

10. At a sale on winter clothing, Cody bought two pairs of gloves and four hats for \$43.00. Tori bought two pairs of gloves and two hats for \$30.00. Find the cost of each.

11. A garden supply store sells two types of lawn mowers. The smaller mower costs \$249.99 and the larger mower cost \$329.99. If 30 total mowers were sold and the total sales for a given year was \$8379.70, find how many of each type were sold.