

-WORD PROBLEMS
-EQUATIONS

Systems of Equations Word Problems

1. The sum of two numbers is 15 less than twice the first number. Their difference is 5 less than twice the second number. Find each of the numbers.
2. The sum of two numbers is 8 less than twice the first number. Their difference is 4 less than twice the second number. Find each of the numbers.
3. The cost of 24 oranges and 15 apples is \$12.36. Fifteen oranges and 12 apples cost \$8.67. Find the cost of each orange and each apple.
4. The admission fee at a small fair is \$1.50 per child and \$4.00 for adults. On a certain day, 2200 people enter the fair and \$5050 is collected. How many children and how many adults attended?
5. Mary has 36 coins consisting of nickels and dimes worth \$2.75. How many of each coin does she have?
6. When a plane flies with the wind, it can travel 4200 miles in 6 hours. When the plane flies in the opposite direction, against the wind, it takes 7 hours to fly the same distance. Find the speed of the plane in still air and the speed of the wind.
7. In Goose Creek, Jenny can row 60 km downstream in 4 hours or she can row 36 km upstream in the same amount of time. Find the rate she rows in still water and the rate of the current.
8. The perimeter of a rectangle is 52 inches. The length is $2\frac{1}{4}$ times the width. Find the dimensions of the rectangle.
9. An airplane flew 1800 miles in 5 hours with the wind. If it took 9 hours to make the return trip, find the rate of the plane and the rate of the wind.
10. Seven years ago, Tom was five times as old as Betty. Four years ago, Tom was only three times as old as Betty was then. Find their present ages.
11. Mr. Jackson is 13 years less than 3 times as old as his son. Six years ago, he was 14 years more than ^{twice} his son was then. Find each of their ages.
12. Dried apricots worth \$5.75 a pound were mixed with dried prunes worth \$3.80 a pound to produce a mixture of dried fruit worth \$4.25 a pound. How much of each kind of fruit was used to produce 52 pounds?
13. Pure copper was mixed with a 12% copper alloy to produce an alloy that was 32% copper. How much of the pure copper and how much of the 12% copper alloy were used to produce 44 kg of 32% alloy.
14. Mrs. Jones has \$600 in five and ten dollar bills. The number of ten dollar bills was 10 less than 3 times the number of five dollar bills. How many does she have of each?
15. The Walters family has \$5000 which it plans to invest in bonds and certificates. The bonds yield 9% per year and the certificate yield 10% per year. How much of the \$5000 should be put into each investment to earn \$485 per year?