



Linear System Word Problems

Solve each of the following problems. Show all your work.

- Find two numbers whose sum is 79, such that one number is 11 more than three times the other.
- A woman paid \$106 for one pair of pants and three equally priced shirts. Find the cost of each if two pairs of pants cost \$79 more than one shirt. 
- Anne has to mix two chlorine solutions. One solution is 55% chlorine and the other is 30% chlorine. If she requires 270 ml of 41% chlorine solution, how much of each of the original solutions does she need?
- A young couple has \$1400. One person's share equals the sum of \$275 and twice the other person's share. How much does each have?
- Jim is pricing the cost of gravel for his driveway. One company charges a \$53 delivery fee and \$31.50 per ton of gravel. Another company charges a delivery fee of \$40.50 and \$34 per ton of gravel. How much gravel would have to be purchased from both companies for the price to be the same.
- A basketball player made 14 hoops for a total of 23 points. If she gets 1 point for each foul shot and 2 points for each goal, how many of each did she complete? 
- Sasha has \$1800 invested, part at 6% and part at 7%. The total annual income from the investment is \$119. Find the amount invested at each rate.
- You must find the point of intersection between two linear functions. One function has a y-intercept of 4 and passes through the point (1,6). The other function passes through (2,-7) and (-5,14).
- The perimeter of a rectangle is 112 cm. The length is 4 less than 3 times the width. Find the dimensions of the rectangle.
- Lise has \$6.55 in quarters and dimes. The number of dimes is eleven less than twice the number of quarters. How many coins of each kind does she have?

- The numbers are 17 and 62.
- pants : \$49 shirt : \$19
- 55% solution : 118.8 ml 30% solution : 151.2 ml
- \$375 and \$1025
- 5 tons of gravel
- 5 foul shots and 9 goals
- \$700 invested at 6% and \$1100 invested at 7%
- point of intersection : (-1, 2)
- length : 41 cm width : 15 cm
- 23 dimes, 17 quarters