Algebra 2
Linear Systems Applications Practice - Day 1

Define your variables, write a system of a equations, solve your system, and write your answer according to the context of the problem.

1. Lorena has 26 coins in nickels and quarters, which are worth a total of $3.10. How many of each coin does she have?

2. A Biology test is worth 100 points and there are 26 problems in all. Some of the problems are worth 5 points and some are worth 3 points. How many 5-point questions are there and how many 3-point questions are there?

3. Joe works at a movie theater that sells adult tickets for $7 and kid's tickets for $4. On Friday, they sold a total of 957 tickets and made a total of $6,447. How many adult tickets and how many kid's tickets did they sell?

4. Kelly and MaryAnn got take-out for their families for lunch. Kelly bought 6 sandwiches and 2 salads for $22.90. MaryAnn bought 3 sandwiches and 5 salads for $20.05. How much does each sandwich and each salad cost?

5. Jasmine is deciding between two cell-phone plans. The first plan has a $50 sign-up fee and costs $20 per month. The second plan has a $30 sign-up fee and costs $25 per month. After how many months will the total costs be the same? What will the cost be? If Jasmine has to sign a one-year contract, which plan will be cheaper?

Answers:

1. Lorena has 9 quarters and 17 nickels.
2. There are 15 3-point questions and 11 5-point questions on the test.
3. There were 873 adult tickets and 84 child tickets sold.
4. Each sandwich costs $3.82 and each salad costs $2.15.
5. Total costs will be $130 at 4 months. For a 1-year contract, Plan 1 is cheaper.