Algebra 2
Linear Systems Applications – Day 2

1. At an ice cream parlor, ice cream cones cost $1.10 and sundaes cost $2.35. One day, the receipts for a total of 172 cones and sundaes were $294.20. How many cones were sold?

2. Shopping at Savers Mart, Lisa buys her children four shirts and three pairs of pants for $85.50. She returns the next day and buys three shirts and five pairs of pants for $115.00.What is the price of each shirt and each pair of pants?

3. Your teacher is giving you a test worth 100 points containing 40 questions. There are two-point and four-point questions on the test. How many of each type of questions are on the test?

4. The sum of two numbers is 24. Their difference is 15. What are the two numbers?

5. Suppose you are starting an office-cleaning service. You have spent $315 on equipment. To clean an office, you use $4 worth of supplies. You charge $25 per office. How many offices must you clean to break even?

6. On December 13th, versus the Washington Wizards, Shaquille O'Neal scored his season high in points, 40. His 40 points were scored all on free throws and two-point baskets. He made a total of 25 shots. How many two-point baskets did Shaq make?

7. The local preschool ordered all new bicycles and tricycles for the new school year. Each bicycle and tricycle is shipped in its own box. Oddly, the manufacturer shipped all the wheels in a separate box. If there are 16 boxes of bicycles/tricycles total, and 45 wheels total, how many tricycles were ordered?

8. For lunch, Jack had a Big Mac and two small fries containing 1,000 calories. Randy had three Big Macs and two small fries for 2080. How many calories are in each item?

9. Sally needs a new car. She is trying to lessen her "carbon foot print", but at the same time she wants to spend her money wisely. She is deciding between the Lexus RX 450h hybrid and the Lexus RX 350. The RX 450h costs $43,700 with anticipated gas costs of $1,454 per year. The RX 350 costs $38,650 with anticipated gas costs of $2,078 per year. How many years will it take for the total costs of the two SUVs the same? What will the total cost be?

10. Jack has a collection of new nickels and quarters. He has a total of 50 coins worth $10.30. How many of each coin does he have?

Answers:
1. 88 ice cream cones were sold.
2. Shirts cost $7.50 and pants cost $18.50.
3. The test had 30 2-pt and 10 4-pt questions.
4. The numbers are 19.5 and 4.5.
5. 15 offices need to be cleaned to break even.
6. Shaq made 15 2-pt shots.
7. 13 tricycles and 3 bicycles were ordered.
8. There are 540 calories in a big mac and 230 in a small fry.
9. Both vehicles will cost $55467.15 after about 8 months.
10. He has 11 nickels and 39 quarters.