Algebra Name_____ ID: 1

Word Problems: Systems of Equations

Date_____ Period____

For each problem, write a system of equations and solve using the appropriate method. Don't forget to define your variables and answer the problem with a sentence.

1) The sum of two numbers is 22. Their difference is 4. What are the numbers?

2) Daniel's school is selling tickets to a fall musical. On the first day of ticket sales the school sold 7 adult tickets and 2 child tickets for a total of $98. The school took in $130 on the second day by selling 6 adult tickets and 5 child tickets. What is the price each of one adult ticket and one child ticket?

3) Rob and Shreya each improved their yards by planting daylilies and shrubs. They bought their supplies from the same store. Rob spent $123 on 10 daylilies and 3 shrubs. Shreya spent $100 on 5 daylilies and 5 shrubs. Find the cost of one daylily and the cost of one shrub.

4) Mei and Nicole are selling pies for a school fundraiser. Customers can buy cherry pies and pumpkin pies. Mei sold 7 cherry pies and 2 pumpkin pies for a total of $131.70. Nicole sold 1 cherry pie and 4 pumpkin pies for a total of $82.70. What is the cost each of one cherry pie and one pumpkin pie?

5) The school that Chelsea goes to is selling tickets to the annual talent show. On the first day of ticket sales the school sold 3 senior citizen tickets and 1 student ticket for a total of $34.90. The school took in $160.70 on the second day by selling 9 senior citizen tickets and 11 student tickets. Find the price of a senior citizen ticket and the price of a student ticket.

6) One number is 1 more than 3 times another number. The difference between the two numbers is 13. Find the numbers.

Answers to Word Problems: Systems of Equations (ID: 1)

1) 9 and 13
2) adult ticket: $10, child ticket: $14
3) daylily: $9, shrub: $11
4) cherry pie: $13.90, pumpkin pie: $17.20
5) senior citizen ticket: $9.30, student ticket: $7
6) 6 and 19