2X2 Systems of Equations Word Problems **Name_____**

Write a system of equations that represents each word problem, then solve.

1) The sum of two numbers is 34 and their difference is four. Find the numbers.

2) The sum of two numbers is 56. The larger exceeds twice the smaller by two. Find the numbers.

3) Large cans of a certain kind of cream sell for $0.54 and small cans for $0.21. Roberta bought several cans for a total of $2.46. If she spent $0.78 more for the large cans than for the small cans, how many cans of each size did she buy?

4) The perimeter of a rectangle is 54 cm. Two times the attitude is three cm more than the base. What is the area of the rectangle?

5) The manager of a theater knows that 900 tickets were sold for a certain performance. If orchestra tickets sold for $3.00 each and balcony tickets for $2.00 each, and if the total receipts were $2300, how many of each kind of ticket were sold?

6) It required two hours for a 550 km plane trip with the wind and four hours for the return trip against the wind. What would have been the rate of the plane without the wind? What was the rate of the wind?

7) A boat can go downstream at the rate of 25 mph. It can return against the current at only 8 mph. Find the rate of the boat and of the current.

8) A motorboat can go 60 km down a river in three hours. If it takes twice as long to return against the current, find the rate of the current and the rate of the boat in still water.

9) Flying with the wind, an airplane can travel 1800 km in six hours. It can travel only 2/3 of this distance in the same time against the wind. What is the speed of the plane in still air and the speed of the wind?

10) An airplane flew 1800 km in five hours with the wind. It would have taken ten hours to make the same trip against the wind. Find the rate of the plane and the rate of the wind.

11) The charge for admission to the zoo is $3.25 for each adult and $1.50 for each child. On a day when 500 people paid to visit the zoo, the receipts totaled $1275. Find the number of adult tickets and children tickets sold that day.

12) The perimeter of a rectangle is 42 yards. The length of the rectangle is three yards more than twice the width. Find the dimensions of the rectangle.

Answers to systems word problems:

1) 19, 15 2) 18, 38 3) 3 large, 4 small 4) 170 5) 500 orchestra, 400 balcony

6) 206.25, 68.75 7) 16.5, 8.5 8.) 5, 15 9) 250, 50 10) 270, 90 11) 300 Adult 200, Child

12) 15 yds. x 6 yds.