

Name: ANSWERS

Chapter 8: Systems of Linear Equations -- Word Problem Practice

1. There were 84 tickets sold for a school play. If adults were charged \$5 and students \$3 and the total receipts was \$300, how many adults and students came to the play? Verify your solution.

24 adults

60 students

2. Home Depot sells large cans of paint for \$30.50 and small cans of paint for \$10.40. The store has 200 cans of paint worth 3650.40. Write a linear system to model this situation. How many of each size of can do they stock? Verify your solution.

~~NOT EXACT~~

≈ 122 large cans

≈ 78 small cans.

3. A gift shop sold hand-made moccasins. One order of 4 pairs of children's moccasins and 3 pairs of women's moccasins cost \$244.65. Another order of 2 pairs of children's moccasins and 4 pairs of women's moccasins cost \$229.70. What is the cost of a pair of each type of moccasin? Verify your solution.

child's cost \$28.95

women's cost \$42.95

4. Two numbers have a difference of 45. The sum of three times the smaller and twice the larger is 270. Find the two numbers. Verify your solution.

The #s are 81 & 36.

5. When three numbers are added in pairs, the sums of the pairs are 27, 34, and 45. What are the three numbers? Verify your solution.

$$a = 19$$

$$b = 8$$

$$c = 26$$

6. Your class raised \$195 by collecting 3000 items for recycling. They received 5¢ for each pop can and 20¢ for each large plastic bottle. How many pop cans and large bottles did your class recycle? Verify your solution.

2700 pop cans

300 bottles