

*P.I. A.A.7: Analyze and solve verbal problems whose solution requires solving systems of linear equations in two variables*

1. Use any problem solving strategy to solve the following problem. The sum of two numbers is 143. Their difference is 136 less than the sum. What are the two numbers?
2. In an election between two candidates, 610 votes were cast. If the winner received 330 more votes than the loser, how many votes did the winner receive?
3. Two shirts cost \$65. The difference in their cost is \$7. Determine the cost of each shirt.
4. The total number of horses and people at the riding academy for the Sunday session was 42. The total number of legs at the academy that day was 140. How many people were at the riding academy that Sunday?  
[A] 24      [B] 28      [C] 18      [D] 14
5. A total of 62 sheep and cats were on the ranch. If five times the number of sheep exceeded the number of cats by four, how many of each were on the ranch?
6. Tickets to a local movie were sold at \$6.00 for adults and \$4.50 for students. If 240 tickets were sold for a total of \$1275.00, how many student tickets were sold?  
[A] 130      [B] 110      [C] 20      [D] 145

7. Niki has 8 coins worth \$1.40. Some of the coins are nickels and some are quarters. How many of each coin does Niki have?
- [A] 4 quarters and 4 nickels  
[B] 3 quarters and 5 nickels  
[C] 2 quarters and 6 nickels  
[D] 5 quarters and 3 nickels  
[E] 6 quarters and 2 nickels
8. Use any problem solving strategy to solve the following problem. Members of the band sold \$1150 worth of packages of pens and markers. They sold a total of 310 packages, including 10 more packages of pens than markers. If one package of pens and one package of markers costs \$7.50, what was the price of each package?
9. Use any problem solving strategy to solve the following problem. Altogether 568 tickets were sold to a play. An adult ticket costs \$5. A child's ticket costs \$2. Ticket sales were \$2345. The theater manager expects to sell the same number of tickets to the next play, but wants to increase the ticket sales to \$3554 by increasing the price of the adult tickets. Find the new price of an adult ticket.
10. Holly, Lori, and Sophia had 48 compact discs among them. Holly gave 5 discs to Lori and Sophia gave 6 discs to Holly. Finally, Lori gave 2 discs to Holly. They ended up with an equal number of discs. How many discs did each person start with?
- [A] Holly: 16 discs, Lori: 16 discs, Sophia: 16 discs  
[B] Holly: 13 discs, Lori: 13 discs, Sophia: 22 discs  
[C] Holly: 22 discs, Lori: 13 discs, Sophia: 13 discs  
[D] Holly: 19 discs, Lori: 19 discs, Sophia: 10 discs

Integrated Algebra Practice: A.A.7 #2

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- [1] 75 and 68
- [2] 470 votes
- [3] One shirt costs \$29 and the other costs \$36.
- [4] D
- [5] 11 sheep; 51 cats
- [6] B
- [7] D
- [8] \$2.50 for a package of pens and \$5 for a package of markers
- [9] \$8
- [10] B