**7.4 Systems of Equations Word Problems**

**Write** **and solve** each system. Be sure to define your variables and answer the question being asked.

1. 3 dogs plus 5 cats cost $365 5 dogs plus 3 cats cost $491 

What is the cost of one cat?

1. Tickets for a school musical were $4 for adults and $3 for children. The school took in $2778 in ticket sales. If the total number of people attending the play was 722, how may children attended?
2. A bag of nickels and dimes contained 83 coins. If the value of the coins was $7.30, how many nickels are there?
3. Cheryl has a horse and cow ranch that contains 100 animals. The value of each horse is $500 and the value of each cow is $200. If the total value of the 100 animals is $31,100, how many horses does Cheryl have on her ranch?

[](http://www.bing.com/images/search?q=pics+of+ducks+and+cows&id=C36CD712B509480901DB9765244F0D78D1F674C2&FORM=IQFRBA#view=detail&id=C36CD712B509480901DB9765244F0D78D1F674C2&selectedIndex=0)

1. A barn was the home for ducks and cows. If there were 97 animals in the barn and there were 354 legs in the barn, how many cows are in the barn?
2. A horse and a saddle together normally cost $960. During a sale where horses are 30% off and saddles are 25% off, the total cost was $672.50. What is the regular price of a saddle? ( Hint: when an item is discounted 30% the new price is 70% of the regular price

or .70n.)