Algebra

1. Find the solution of the system of equations.

$$-x+4y=29$$

 $6x+2y=-18$

2. Solve the system by substitution.

$$3y = x$$

 $-3x + 6y = 6$

 Gavin and Ian go to the movie theater and purchase refreshments for their friends.

Gavin spends a total of \$80.00 on 6 drinks and 7 bags of popcorn.

Ian spends a total of \$56.00 on 2 drinks and 6 bags of popcorn.

Write a system of equations that can be used to find the price of one drink and the price of one bag of popcorn.

Using these equations, determine and state the price of a bag of popcorn, to the nearest cent.

4. A bag contains white marbles and red marbles, 57 in total. The number of white marbles is 9 less than 5 times the number of red marbles. How many white marbles are there?

5. An animal shelter spends \$3.50 per day to care for each bird and \$6.00 per day to care for each cat. Julia noticed that the shelter spent \$179.00 caring for birds and cats on Friday. Julia found a record showing that there were a total of 34 birds and cats on Friday. How many birds were at the shelter on Friday?