Homework 5.3

1) Lea and eight of her friends went out to eat. Their total bill was $88.74. She would like to treat a group of friends to dinner at this same restuarant.

   A. Based on the average cost per person of the current meal, write an inequality to find the maximum number of people that she can pay for at the next dinner outing.

   B What is the maximum number of meals that Lee can pay for if she has $45 to spend and the average cost of the meals is the same as the current restuarant bill?

2) Elisa spent $9 on 4 batteries.

   A. Write an inequality that can be used to determine the maximum number of batteries that Elisa can buy with $15.50.

   B. What is the maximum number of batteries that Elisa can buy with $15.50?

3) You bought one $6 magazine and 3 candy bars for a total of $9.75.

A. Write an inequality that can be used to determine the maximum number of candy bars that can be purchased along with one $6 magazine with a total of $12.00.

B. What is the maximum number of candy bars that can be purchased at this same price along with one $6 magazine with $12.00.

4) Mary rented a bike from Mike's Bikes. It cost $14 plus an hourly rate. It cost Mary $28.70 to rent the for 6 hours.

A. Write an inequality to find the maximum number of hours that Mary can rent the bike if she has $55 to spend.

B. What is the maximum number of hours that Mary can rent the bike for if she has $55 to spend?

Solve each proportion.

5) $\frac{4-k}{12} = \frac{6}{4}$

6) $\frac{n+6}{4} = \frac{5}{3}$

Answers to Homework 5.3

1) $9.86x < 45$, 4 meals
2) $15.50 > 2.25x$, 6 batteries
3) $12 > 1.25x + 6$, 4 candy bars
4) $55 > 2.45x + 14$, 16 hours
5) $\{-14\}$
6) $\{\frac{2}{3}\}$