Topic 1 Test Review Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**1.** Marlow wants to rent and ride a bike at a state park. There are two parks in his area. One has an entrance fee of $8 and charges $2 per hour for bike rentals. The other park has an entrance fee of $2 and charges $5 per hour for bike rentals. After how many hours would the cost of renting and riding a bike be the same at both parks?

**2.**  Solve each for x:

**a**.  **b**.  **c**. 

**3.** Solve each inequality, then graph your solution on a number line.

**a.  b. **

**4**. How many pounds of cashews that cost $14 per pound must be mixed with 5 pounds of peanuts that cost $6.50 per pound to make mixed nuts that cost $10.25 per pound?

**5**. Solve each for k

**a.**  **b**.

**6.** Solve each equation and state how many solutions it has.

**a.  b.  c. **

**7.** Tom is trying to decide whether or not to join a gym to use their basketball courts. The membership will cost $135 and then the court rental is $2 each time. Non-members pay $11 each time. How many times would Tom need to rent in order for it to be cheaper to be a member?

**8.** Trinti had $500 in a savings account at the beginning of the summer. She wants to have at least $200 in the account by the end of the summer. She withdraws $25 each week for food, clothes, and activities.

**a.** Write an inequality that represents Triniti’s situation

**b.** How many weeks can Triniti withdraw money from her account?