Percent Increase and Decrease
Show all of your work and you may use a calculator.

In exercises 1-4, find the percent increase or decrease. Be sure to tell if it is an increase or decrease.

1. Original: $100
    New: $59

2. Original: 324 people
    New: 549 people

3. Original: 58 Homes
    New: 152 Homes

4. Original: 66 Dimes
    New: 30 Dimes

5) Ken said that he is going to reduce the number of calories that he eats during the day. Ken's trainer asked him to start off small and reduce the number of calories by no more than 7%. Ken estimated and consumed 2200 calories per day instead of his normal 2500 calories per day until his next visit with the trainer. Did Ken reduce his calorie intake by 7%? Justify your answer.

6) Justin earned 8 badges in Scouts as stated in the Scout Master's last report. Justin wants to complete 2 more badges so that he will have a total of 10 badges earned before the Scout Master's next report. If Justin completes the additional 2 badges, what will be the percent increase in badges?

7) The population of cats in a rural neighborhood has declined in the past year by roughly 30%. Residents hypothesize that this is due to wild coyotes preying on the cats. The current cat population in the neighborhood is estimated to be 12. Approximately how many cats were there originally?

8) A store advertises 15% off an item that regularly sells for $300.

   a) What is the sale price of the item?

   b) How is a 15% discount similar to a 15% decrease. Explain.

   c) If 8% sales tax is charged on the sale price, what is the total with tax?

   d) How is 8% sales tax like an 8% increase? Explain.

9) An item that was selling for $72 is reduced to $60. Find the percent decrease in price. Round your answer to the nearest tenth.

10) A baseball team had 80 players show up for tryouts last year and this year had 96 players show up for tryouts. Find the percent increase in players from last year to this year.