**Algebra 1 Name:**

**Unit 8 Day 2 Practice**

1. Decide whether each scenario has a positive, negative, or no correlation. Remember to think **generally**!

f. Hours studying vs. Grades

g. Hours in the mall vs. Amount of money spent

h. Person’s height vs. Person’s age

i. Person’s height vs. How fast they drive

j. Temperature vs. Number of people wearing jackets

2. Determine if the following statements are correlation or causation.

e. The amount of cars a sales person sells and how much commission he makes.

f. The number of cars traveling over a busy holiday weekend and the number of accidents reported.

g. The number of homework assignments turned in and how well an individual does in class.

h. The annual salary and blood pressure for men ages 20 – 60.

4. Which of the following statements shows a relationship that is correlated but not causal? *(causal = causation)*

A. The number of tardies to class and the number of detentions received.

B. The season of the year and the number of water related injuries/deaths.

C. As the temperature rises, more mercury in the thermometer will expand and rise.

D. The larger the dimensions of a rectangular patio, the more square footage there will be.

6. Students conducted research for their statistics projects to model the set of data that compares the number of TVs per person in a given country and the average life expectancy in the same country. They calculated that r = 0.87.

a. Discuss the type of correlation.

b. The students concluded that the more televisions you have, the longer you will live. Is this a correct conclusion? Why or why not?