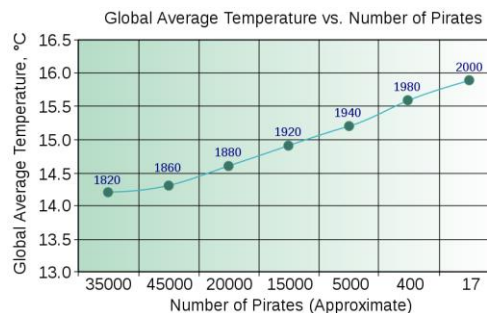


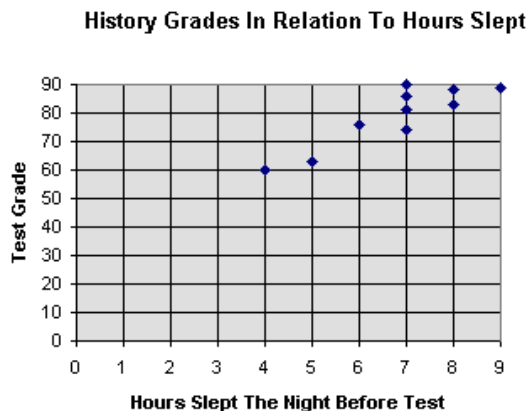
## Correlation and Causation Practice Worksheet

Name \_\_\_\_\_ Class Period \_\_\_\_\_

1. From the information given,
  - a. Determine if the correlation is positive, negative or none.
  - b. Estimate the correlation coefficient.
  - c. Is there causation? Why or why not?

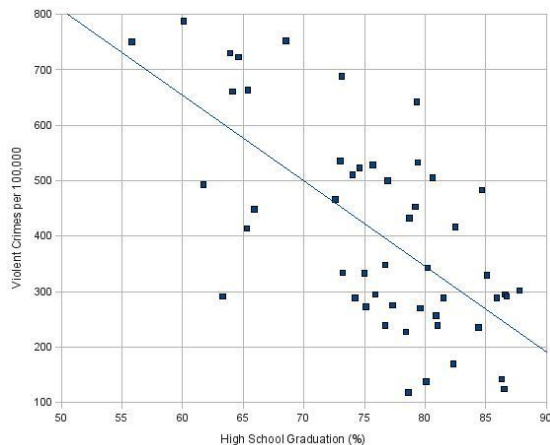


2. A history teacher asked her students how many hours of sleep they had the night before a test. The data above shows the number of hours the student slept and their score on the exam. The graph is a scatter plot from the given data.



- a. Determine if the correlation is positive, negative, or none.
- b. Estimate the correlation coefficient.
- c. Is there causation? Would this information affect your behavior the night before a test?

3. The following chart shows violent crime rates compared to high school graduation for all fifty states.



- a. Determine if the correlation is positive, negative, or none.
- b. Estimate the correlation coefficient.
- c. Is this an illustration of cause and effect, or are these two variables simply correlated?

**For the given situations below,**

**a. Is the association positive, negative or none?**

**b. Is the causation statement is true or false?**

4. When you are on a diet, the less calories you eat daily vs. the more weight you lose.  
Causation statement: *Therefore, eating less calories makes you lose weight.*
  
5. The more ice cream consumed on a beach vs. the increased number of people who go in the water. Causation statement: *Therefore, eating more ice cream on the beach makes people go in the water.*
  
6. The more people in a family vs. the increased number of cars the family owns.  
Causation Statement: *Therefore, the more people there are in a family determines how many cars a family owns.*
  
7. The average speed cars travel from Philadelphia to New York on the turnpike vs. the average amount of times it takes. Causation Statement: *Therefore, the speed cars travel from Philadelphia to New York determines the time it takes to go between them.*
  
8. How much you pay for a house vs. how much you pay for a car. Causation statement: *Therefore the more you pay for a house makes you spend more for a car.*