Name:_____ Due Date: _____Period:_____

16.4a Correlation & Causation of Scatterplots

Identify the following scatter plots as a linear positive, linear negative, exponential growth, exponential decay, or no correlation. If there is a correlation, circle any outliers.

1.

2.

Scatterplot of Bacteria vs Hours

3.

Years since 1997

4.

SCATTER PLOT

5.

6.

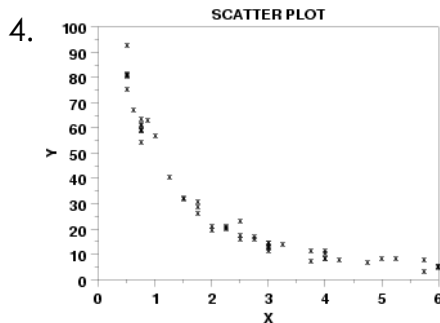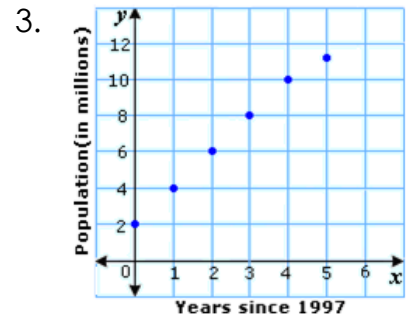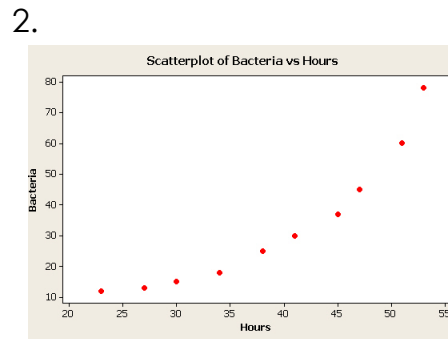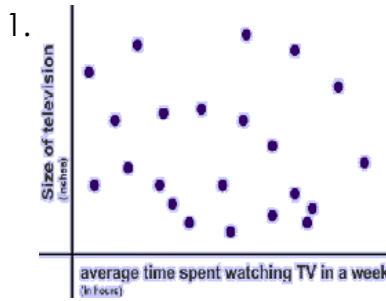Market Penetration (current share / mature market share)

7.

8.

9.
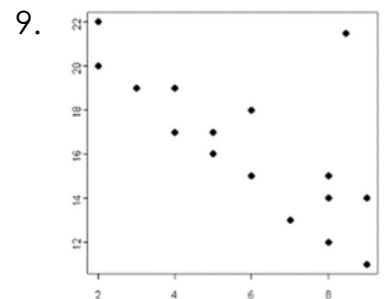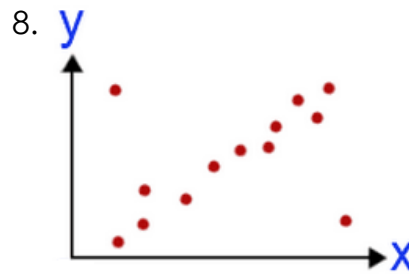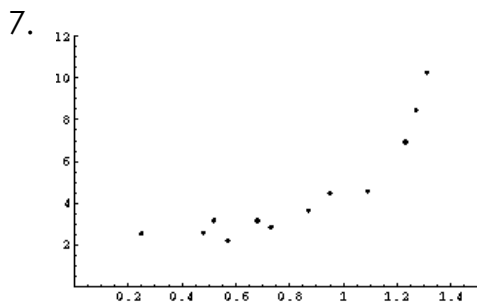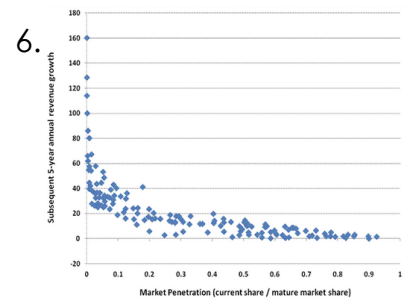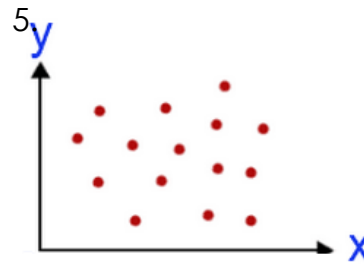
For each of the following situations, decide whether or not there is a **correlation** and whether it is a **positive or negative** correlation. Examine the factors and decide if there is enough evidence to state that there is **causation** as well.

10. Your height and your shoe size

    a) Correlation? Yes or No   b) Positive, Negative or N/A   c) Causation? Yes or No

11. The points a student earns in class and their final grade.

    a) Correlation? Yes or No   b) Positive, Negative or N/A   c) Causation? Yes or No

12. The amount of money you spend and the amount of money left in your wallet (you carry cash only).

      a) Correlation? Yes or No   b) Positive, Negative or N/A   c) Causation? Yes or No
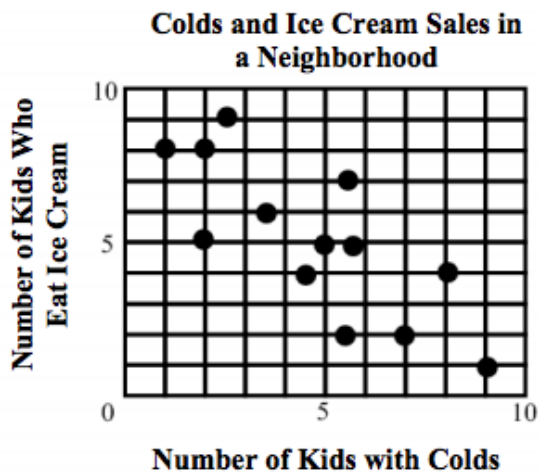
13. The number of cavities you have and your math test score.

      a) Correlation? Yes or No   b) Positive, Negative or N/A   c) Causation? Yes or No
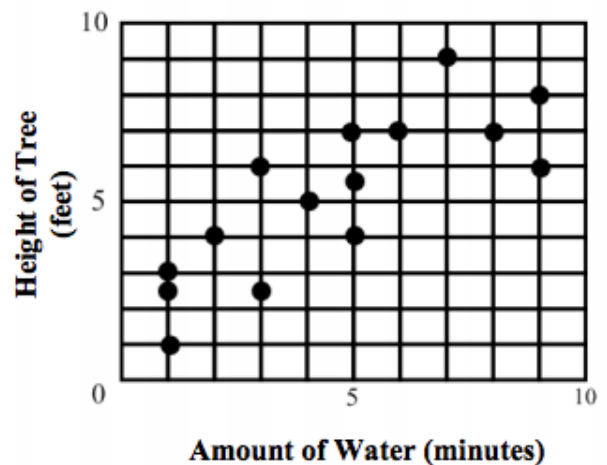
14. The age of a car and its resale price

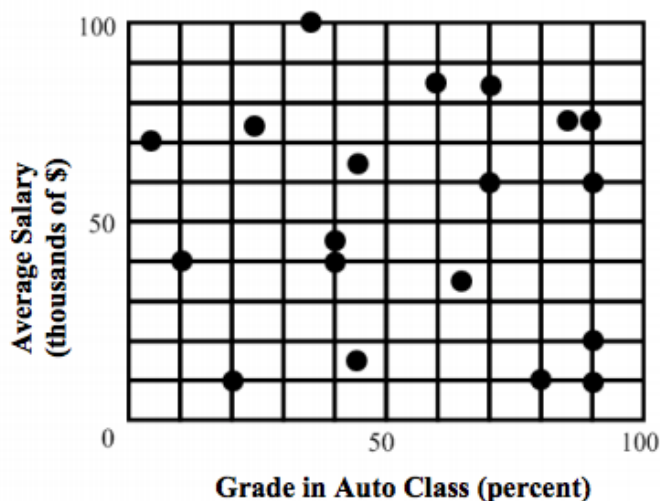   a) Correlation? Yes or No   b) Positive, Negative or N/A   c) Causation? Yes or No

15.

Colds and Ice Cream Sales in a Neighborhood

Number of Kids Who Eat Ice Cream (y-axis)

Number of Kids with Colds (x-axis)

a) Correlation? Yes or No

b) Positive, Negative or N/A

c) Causation? Yes or No

16.

Height of Tree (feet) (y-axis)

Amount of Water (minutes) (x-axis)

a) Correlation? Yes or No

b) Positive, Negative or N/A

c) Causation? Yes or No

17.

Average Salary (thousands of $) (y-axis)

Grade in Auto Class (percent) (x-axis)

a) Correlation? Yes or No

b) Positive, Negative or N/A

c) Causation? Yes or No