1. The table shows the weekly sales of a DVD and the number of weeks since its release.



1. Make a scatter plot of the data.
2. What type of correlation? Positive/Negative/No Correlation
3. Draw a trend line.

 d. Use a calculator to find the equation of the line of best fit. (Round to the

 hundredths place if needed.)

 e. Interpret the slope and *y*-intercept of the line of best fit.

 Slope: *y*-intercept:

 f. Find the correlation coefficient, $r$: g. Determine the strength of the correlation coefficient.

2. The scatter plot shows the days $x$ of practice and the numbers $y $of free throws made during practice.



1. What type of correlation? Positive/Negative/No Correlation
2. Draw a trend line.

 c. Use a calculator to find the equation of the line of best fit. (Round to the

 hundredths place if needed.)

1. Find the correlation coefficient, $r$:
2. Determine the strength of the correlation coefficient.

 f. Predict the number of free throws made after 10 days of practice.

3. The table shows the durations $x$ (in minutes) of several eruptions of the geyser Old Faithful and the times $y$ (in minutes) until the next eruption.



1. What type of correlation? Positive/Negative/No Correlation

 b. Use a calculator to find the equation of the line of best fit. (Round to the

 hundredths place if needed.)

 c. Find the correlation coefficient, $r$: d. Determine the strength of the correlation coefficient.

1. Approximate the duration before a time of 77 minutes.

 f. Predict the time after an eruption lasting 5.0 minutes.

**Practice:** Tell whether a correlation is likely in the situation. If so, tell whether there is a causal relationship. Explain your reasoning.

4. time spent exercising and the number of calories burned

 Correlation: Causation: YES/NO

5. the number of banks and the population of a city

 Correlation: Causation: YES/NO

6. time spent playing video games and grade point average

 Correlation: Causation: YES/NO

7. Eating organic food and getting a good score on a test

 Correlation: Causation: YES/NO