Lab Report: Linear Regression and Correlation

Name(s):

Key Terms

Provide the definitions for the following terms:

- **linear regression**:

- **linear regression equation**:

- **independent variable**:

- **dependent variable**:

- **scatterplot:**

- **line of best fit**:

- **least-squares regression**:

- **residual**:

- **sum of squared errors (SSE)**:

- **correlation coefficient**:

- **outlier:**

Variables

independent variable (x):

dependent variable (y):

Data

What is the source of your data? What data sampling method did you use?

Scatterplot

Linear Correlation and Regression

Interpretation

Linear Correlation

Is there a linear correlation? Why? Is the correlation positive or negative (if a correlation exists)?

Linear Regression

What is the regression equation for your sample data? Does the slope indicate that the relationship is positive or negative?

Using Regression Equation to Make a Prediction

$x =$

$\hat{y} =$

Discussion

1.

2.

3.