

## PsychSim 5: CORRELATION

Name: \_\_\_\_\_ Section: \_\_\_\_\_

Date: \_\_\_\_\_

This activity demonstrates the use of scatterplots to visualize positive and negative relationships.

### Positive Correlation

- What does it mean to say that two variables are positively correlated?

### Negative Correlation

- What does it mean to say that two variables are negatively correlated?

### Uncorrelated Variables

- What does it mean to say that two variables are uncorrelated?

### Correlation Coefficient

- What is a correlation coefficient?

### Why Use It?

- What value or benefit would a researcher gain by calculating a correlation coefficient rather than simply describing the relationship as a positive correlation or a negative correlation?

### Estimating the Relationship

- Look at the scatterplots and try to estimate the direction (positive or negative) and the strength of the relationship. Write in your guess below.
 

<ul style="list-style-type: none"> <li>o Scatterplot 1 _____</li> <li>o Scatterplot 2 _____</li> <li>o Scatterplot 3 _____</li> </ul>	<ul style="list-style-type: none"> <li>o Scatterplot 4 _____</li> <li>o Scatterplot 5 _____</li> <li>o Scatterplot 6 _____</li> </ul>
---	---

### Causality and Predictability

- The presence of a correlation between two variables doesn't prove that certain values on one variable \_\_\_\_\_ high or low values on the other. It merely demonstrates that the two variables are \_\_\_\_\_ in some way.
- The relationship between two correlated variables has \_\_\_\_\_. This means that if a strong correlation exists between variables, then knowing a person's score on one variable allows us to predict a person's score on the other variable.