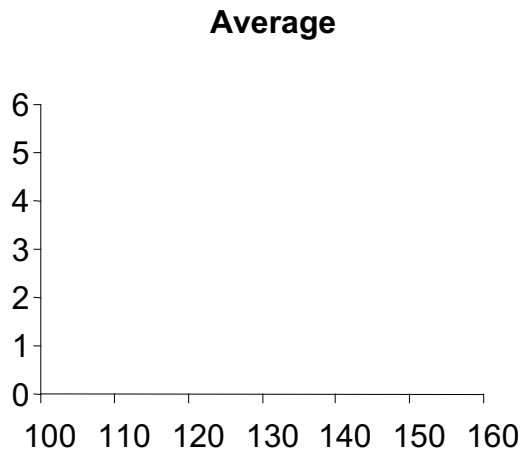
Name: _____

AP PSYCH
Unit 2.2 Activities
Correlation & Experimentation

The first 4 questions are about dorm life.

1. Suppose that, for each of six different dorm rooms, you measure two variables: a) room size in square feet, and b) student satisfaction with dorm life. Suppose that the results of your study were as follows: Plot these results on the graph below. (Operational definition of satisfaction: rating of 5 = high satisfaction, 1 = low satisfaction)

Dorm	Room Size	Average Satisfaction Rating
U	120	3
V	140	5
W	150	4
X	110	2
Y	160	5
Z	130	3



2. Does the graph show a positive correlation, a negative correlation, or no correlation? You MUST explain your answer.

3. Estimate the correlation coefficient.

4. Do these results prove that room size causes a change in student satisfaction with dorm life? Why or why not?

Use your book and the notes to answer the following questions.

5. Correlation is not causation. What does this mean? Help teach this concept to a total noob in your answer.

6. Describe at least one illusory correlation that you have experienced or know someone else who has experienced.

Here are some recently reported correlations, with the interpretations drawn by the media noted in parentheses.

7. Attention disorder linked with drug abuse. (Interpretation: Children with ADHD have poor academic performance and peer difficulties, which makes them susceptible to abusing drugs.)
    1. What is the correlation AND is it positive or negative?

    2. In the absence of experimental research, come up with other possible explanations for each of these.

8. Toddlers who watch more than two hours of TV per day perform worse in school than those who watch less. (Interpretation: TV viewing makes children bad students.)
    1. What is the correlation AND is it positive or negative?

    2. In the absence of experimental research, come up with other possible explanations for each of these.

9. Educated people live longer, on average, then less-educated people. (Interpretation: Education lengthens life and enhances life.)
    1. What is the correlation AND is it positive or negative?

    2. In the absence of experimental research, come up with other possible explanations for each of these.

10. Your teacher will be conducting an experiment in class. Describe each of these components of the experiment:
    a. Hypothesis

    b. Experimental group

    c. Control group

    d. Independent variable

    e. Dependent variable

    f. Random assignment

g. Confounding variables

h. Single blind or double blind? Why?

i. Did random assignment help control for confounding variables such as IQ or gender?

j. How could this experiment have been conducted better?

k. How could we have used a placebo or what would a placebo have been?

11. Design an experiment! Set up your own experiment from scratch about anything you want. You must describe AND underline the following terms in your fake experiment:
    - Hypothesis
    - Random assignment
    - Experimental group
    - Control group
    - Independent variable
    - Dependent variable
    - Operational definition(s)
    - Confounding variable(s)
    - Placebo effect
    - Single-blind OR double-blind procedure

12. Describe a time when you or someone you know fell victim to the placebo effect. Use several supporting details to tell your story.