

PSY 101 General Psychology

Name:

A researcher is interested in the relationship between amount of study time (X) and first exam scores in a college course (Y). Participants were asked to report the number of hours studied for the first exam. Then participants' scores on the first exam were recorded. What is the correlation between study time and first exam score?

Study Time (X) Exam Score (Y)

2	50
5	62
8	75
10	80
4	70
7	78
15	93
3	65
6	74
9	89

Mean = 6.90 Mean = 73.60

1. Plot the data on the graph provided.
2. Draw in a line that represents the mean for each variable and label your quadrants.
3. Count the number of cases in each quadrant (A, B, C, D).
4. What is the correlation coefficient? Use one of the formulas given in class to calculate percentage of correct predictions and the table below to help you find *phi*.

% Correct Predictions	Phi
50	.00
55	.10
60	.20
65	.30
70	.40
75	.50
80	.60
85	.70
90	.80
95	.90
100	1.00

5. What does this correlation coefficient mean?