

**Psychology 445L
Spring 2008**

Homework #2

Name: _____

Date: _____

In all problems involving any figuring, please show your work.

1. A researcher studied the relation between psychotherapists' degree of empathy and their patients' satisfaction with therapy. As a pilot study, four patient-therapist pairs were studied. Here are the results:

Pair Number	Therapist Empathy	Patient Satisfaction
1	70	4
2	94	5
3	36	2
4	48	1

For this problem, 1) make a scatterplot of the raw scores, 2) describe in words the general pattern of correlation, if any, 3) figure the correlation coefficient and 4) give three logically possible directions of causality, saying why the relationships would be plausible.

2. A developmental psychologist studying people in their 80s was interested in the relation between the number of very close friends and overall health. The scores for the six research participants are listed below:

Participant	Number of Friends		Overall Health	
	X	Z _x	Y	Z _y
A	2	0	41	-.88
B	4	1.29	72	.96
C	1	-1.29	37	-1.12
D	3	.65	84	1.68
E	2	0	52	-.23
F	1	-.65	49	-.41

For this problem, 1) make a scatter diagram of the raw scores, 2) describe in words the general pattern of the correlation, if any, and 3) figure the correlation coefficient.

3. Gable and Lutz (2000) studied 65 children, 3 to 10 years old, and their parents. One of their results was "Parental control of child eating showed a negative association with children's participation in extracurricular activities ($r=.34, p<.01$)."

Another result was "Parents who held less appropriate beliefs about children's nutrition reported that their children watched more television per day ($r=.26, p<.01$)."

Please explain these results as if you were writing to a person who never had a course in statistics. Be sure to comment on possible directions of causality for each result.

