

Second Exam

Write all answers in your blue book and show all work there. Return your exam and printout(s) in your blue book.

1)	A	B	C
	12	4	2
	10	6	4
	4	6	6
	2	8	8

- Find (by hand) the intercept and slope of a model where C is a function of B.
- Find $s_{Y.X}$ and s_b for this model.
- Is your slope significantly different from 0 when $\alpha = .01$? (Show all steps to the test.)
- Find r^2 and interpret it.
- Find the 99% confidence interval for $\mu_{A,B}$ when $B = 6$. Without recalculating, say what happens to the interval when B goes below 6.

pts.

2) **Computer problem.** Suppose that we have this data.

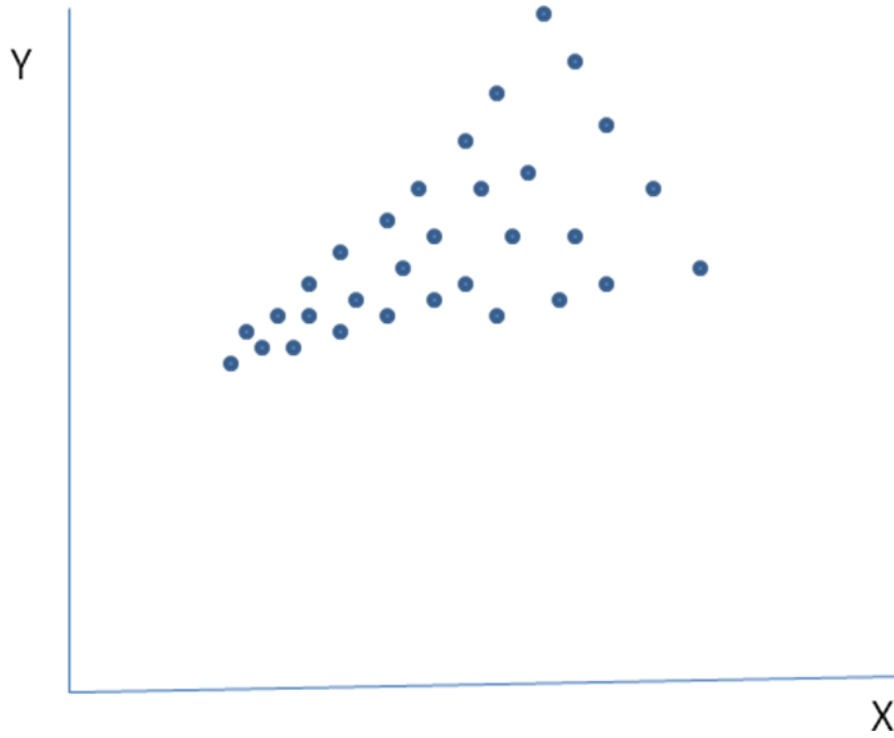
Y	X
1	6
2	5
4	4
7	3
11	2
16	1

- Regress a model where $Y = a + b_1X_1 + b_2X_2^2$
- Regress a model where $Y = AB^X$
- Which fits better? Why?

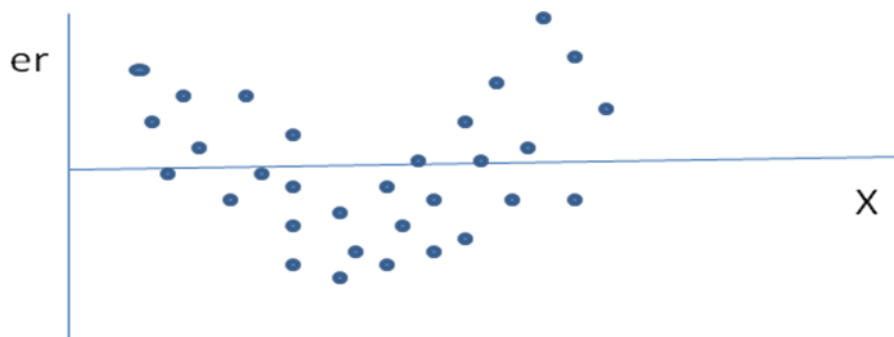
pts.

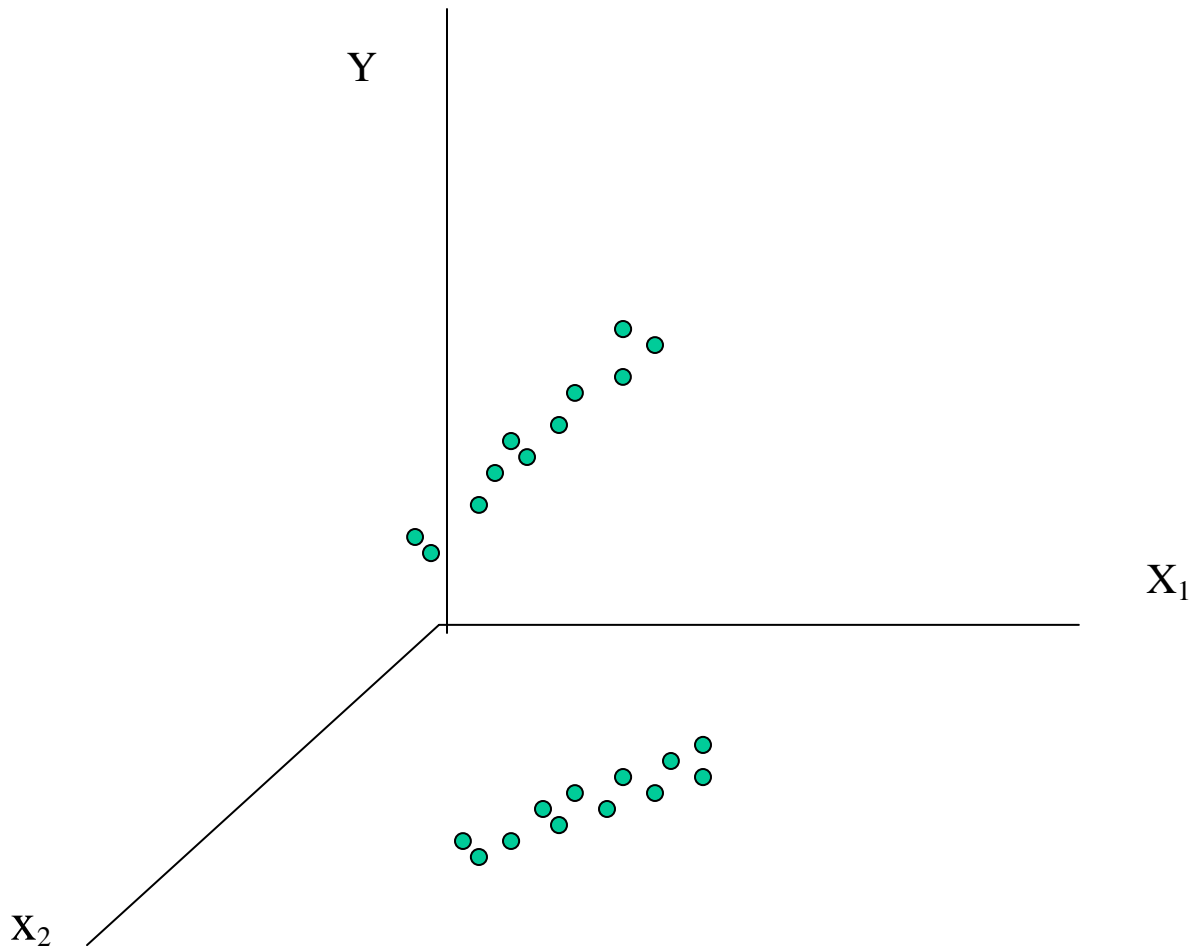
3) Consider the charts below. Say for each one what kind of econometric problem it suggests. Briefly explain.

A



B





Pts.

- 4) a) Find (by hand) the intercept and slopes of a model where, with the problem one data, C is a function of B and A.
 b) Compare the slope of B in this model to what you got in problem 1. Why did this change occur?

Pts.

5) **Computer problem:**

- a) Open the trucks file in the chapter 16 folder. Regress resale value as function of retail price and dummy variables for type of vehicle.
 b) Interpret the AOV.
 c) Interpret the slopes and say which are significant at the 1% level.
 d) Draw a well-labeled diagram that represents the equation.

I have neither given nor received unfair aid on this test nor am I aware of anyone else who has.
