

Place your name on the back of this sheet of paper and nowhere else. Staple your answers on the front of this sheet of paper. Failure to follow these directions will cost you 1 point. Your assignment will be typed, except graphs can be drawn by hand and mathematical equations can be done by hand. Failure to type it will cost you 10 points. If you use double-sided printing or print on the back of scrap paper, I will give you one additional point.

Regression Statistics						
Multiple R		0.550738				
R Square		0.303312				
Adjusted R Square		0.251706				
Standard Error		53.36756				
Observations		59				
Analysis of Variance						
	<i>df</i>	<i>Sum of Squares</i>	<i>Mean Square</i>	<i>F</i>	<i>Significance F</i>	
Regression	4	66957.61	16739.4	5.877401	0.000531	
Residual	54	153797.2	2848.096			
Total	58	220754.8				
	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Statistic</i>	<i>P-value</i>	<i>Lower 95.00</i>	<i>Upper 95.00</i>
Intercept	939.000	89.955	10.439	6.090e-15	758.991	1119.688
Ppears	-12.000	5.033	-2.384	0.018	-22.346	-2.166
Pcats	13.900	7.368	1.886	0.054	-0.841	28.704
Income	-0.002	0.002	-1.107	0.188	-0.006	0.001
Advertise	-13.000	4.166	-3.121	0.003	-21.360	-4.657

1) Answer the following questions using the regression results above. The regression was to predict the quantity of pears sold.

A) (5 points) Are the overall results good? Explain your logic.

B) (10 points) Which variables are statistically significant? Explain your logic.

C) (5 points) Given the table, are pears and cats substitutes, likely substitutes, likely unrelated, likely complements, or complements? Explain your logic.

D) (10 points) If the price of pears is \$2/pear, the price of cats is \$10/cat, the average income of your customers is \$20,000, and you spend \$10 on advertising, then how many pears would you expect to sell? Show all work and briefly explain what you did.

E) (10 points) Calculate the income elasticity of demand. Are pears inferior, normal, or a luxury? Show all work and briefly explain what you did.

2) (15 points) Would you use a customer survey, customer clinic, or market experiment to determine the demand for a new flavor of fruit juice? Explain your logic.

3) (25 points) Draw a MP_L/AP_L diagram. Illustrate an increase in capital. Explain why the curve(s) moved as drawn.

4) (20 points) Draw the TP_L curve. Explain why it takes its shape.