

Do not write your name on the assignment. Write your name only on the back of this sheet of paper and staple your answers on the front of this sheet of paper. Your assignment will be typed, except graphs can be drawn by hand and mathematical equations can be done by hand. Failure to follow these directions will cost you 1 point on the assignment and failure to type it will cost you 10 points.

1) Use the regression results below to answer the following questions.

A) (10 points) What is the resulting equation for the demand for the good? Briefly explain how you got it. If you leave out a variable, then explain why you left it out.

B) (10 points) If the price of the good is \$10/unit, the GDP is \$10,000, and the firm did \$100 of advertising, then how much would the demand for the good be? Show all work.

C) (10 points) Using your answer to Part B, at that point, what are the income and price elasticities of demand?

D) (10 points) Does this regression do a good job of predicting the actual purchases? Explain your logic.

E) (10 points) If the *Adjusted R Square* was 0.6000 and the *Significance of F* was 0.7500, then what would that tell you about the accuracy of the predictions?

<b>Regression Statistics</b>						
Multiple R		0.9999638				
R Square		0.9999276				
Adjusted R Square		0.9999225				
Standard Error		2.0770866				
Observations		46				
<b>Analysis of Variance</b>						
	<i>df</i>	<i>Sum of Squares</i>	<i>Mean Square</i>	<i>F</i>	<i>Significance F</i>	
Regression	3	2503787.2	834595.74	193449.2	5.906e-87	
Residual	42	181.20013	4.3142889			
Total	45	2503968.4				
	<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	-2.575167	27.913477	-0.092255	0.9269047	-58.90684	53.75651
Price	-0.168017	0.0479945	-3.500762	0.0010591	-0.264874	-0.07116
GDP	0.0100259	0.0002746	36.517426	1.104e-95	0.0094719	0.01058
advertising	0.0410299	0.2721489	0.1507626	0.8808368	-0.508189	0.5902485

2) (25 points each) Explain the advantages and disadvantages of each of the following.

A) Market experiments

B) Surveys