

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.

1) (20 points) Use the table to the right to calculate the cross-price elasticity using the arc formula. Only one pair of rows is able to be used. Explain how you knew which rows you could use. Write the formula and show all calculations. Given that elasticity, what can you tell about the demand for posters? Explain your logic.

P_{poster}	$P_{\text{art work}}$	Income	Q_{poster}
\$4/Q	\$5/Q	\$100	200
\$6/Q	\$7/Q	\$120	200
\$4/Q	\$7/Q	\$120	380
\$4/Q	\$5/Q	\$120	220

2) (10 points each) For each of the following, tell me a number you might expect the elasticity will be. Explain why you chose that number.

- A) Cross-price elasticity of beer and pretzels
- B) Cross-price elasticity of hamburgers and hot dogs

3) (35 points) Draw the budget and indifference curve diagram for bananas and melons. Assume that melons cost \$3/lb, bananas cost \$1/lb, and your income is \$12. Draw an increase in the price of bananas to \$2/lb. Draw a third budget constraint which enables you to find the income and substitution effects. Find the three tangency points. Find the income and substitution effects. Explain how you found the three budget constraints, the income effects, and the substitution effects. (If this was on an exam, I might ask if your graph shows substitutes or complements or if either good is inferior. However, you will learn how to answer those questions the day you hand this in.)

4) (35 points) Draw the budget and indifference curve diagram for cars and horses. Assume that a horse costs twice as much as a car. Draw an increase in the price of a car. Draw a third budget constraint which enables you to find the income and substitution effects. Find the three tangency points. Find the income and substitution effects. Explain how you found the three budget constraints, the income effects, and the substitution effects. (If this was on an exam, I might ask if your graph shows substitutes or complements or if either good is inferior. However, you will learn how to answer those questions the day you hand this in.)