

Do not put your name anywhere on the assignment, other than on the back of this sheet of paper. 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.

1) (10 points) We said that if a firm faces an elastic demand curve, the firm's marginal revenue is positive. Explain the economic reason for this.

2) (15 points each) For the following elasticities, calculate it using the table to the right. Briefly explain how you chose the two data points you used and show all work. What does that information tell us about the product(s)?

Data point	P_x	P_y	Income	Q_x
A	\$3.00/x	\$6.00/y	\$10,000	10
B	\$3.00/x	\$5.00/y	\$20,000	12
C	\$2.00/x	\$5.00/y	\$10,000	8
D	\$5.00/x	\$5.00/y	\$20,000	8
E	\$3.00/x	\$6.00/y	\$20,000	15

A) Income elasticity using **point** elasticity.

B) Own-price elasticity using **arc** elasticity.

C) Cross-price elasticity using **point** elasticity.

3) (10 points each) For the product in each part below, what number would you expect for the elasticity listed with it? Explain your logic.

A) Own-price elasticity of hamburgers

B) Income elasticity of Ford Escapes

C) Cross-price elasticity of peanut butter and jelly

4) (15 points) If $Q_x = 100 - 2P_x + P_y + 0.1I$, then what is the own-price elasticity of demand for good X if the person's income is \$1000, the price of good X is \$5/unit, and the price of good Y is \$10/unit. Show all work and briefly explain what you did.