Wilf Csaplar Jr.   Economics 301   Homework #3   **Due Wednesday 9/7 by 9:00 AM**

Place your name on the back of this sheet of paper and nowhere else. Staple your answers face up on the front of this sheet of paper. Failure to follow these directions will cost you 10 points. 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) (15 points each) To the right is a table of the price of a Coke (P), the price of a substitute like Pepsi (P_s), the price of a complement like ice cubes (P_C), income (Inc.), and the quantity demanded (Q). Exactly one pair of rows can be used to calculate each of the elasticities. For each part, explain how you found the rows for the respective elasticity, calculate the elasticity using **both the point and arc formulas**, and answer the question. **Show All Work.**

P	P_S	P_C	Inc.	Q
10	8	5	1000	60
10	8	7	1000	15
20	8	5	1000	30
20	6	5	1000	40
20	6	5	2000	20

A) The cross-price elasticity of demand with respect to the substitute. Given your two answers, what are they really substitutes? Explain how you determined if they are truly substitutes.
B) Income elasticity of demand. Given those elasticities, is Coke an inferior, normal, or luxury good? Explain your logic.

2) (15 points each) For each of the following elasticities, give me a number you would guess could be the elasticity. Explain how you chose that number.
A) Own-price elasticity of demand for gasoline.
B) Cross-price elasticity of demand for umbrellas and raincoats.
C) Income elasticity of demand for housing.
D) Own-price elasticity of demand for electric cars over a decade.

3) (10 points) Explain why two indifference curves cannot cross.