

#1 Demonstrate how PCC with varying price P_y , (P_x and Income are fixed) can give us the price elasticity of Y to be equal to, less than, or greater than 1 in absolute value

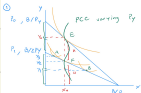
#2

7. A college student has two options for meals: eating at the dining hall for \$6 per meal, or eating a Cup O' Soup for \$1.50 per meal. Her weekly food budget is \$60.
 - a. Draw the budget constraint showing the trade-off between dining-hall meals and Cups O' Soup. Assuming that she spends equal amounts on both goods, draw an indifference curve showing the optimum choice. Label the optimum as point A.
 - b. Suppose the price of a Cup O' Soup now rises to \$2. Using your diagram from [part \(a\)](#), show the consequences of this change in price. Assume that our student now spends only 30 percent of her income on dining-hall meals. Label the new optimum as point B.
 - c. What happened to the quantity of Cups O' Soup consumed as a result of this price change? What does this result say about the income and substitution effects? Explain.
 - d. Use points A and B to draw a demand curve for Cup O' Soup. What is this type of good called?

#3

11. Economist George Stigler once wrote that, according to consumer theory, "if consumers do not buy less of a commodity when their incomes rise, they will surely buy less when the price of the commodity rises." Explain this statement using the concepts of income and substitution effects.

#1 Demonstrate how POC with varying price P_Y (P_X and income are fixed) can give us the price elasticity of Y to be equal to, less than, or greater than 1 in absolute value



Calculate price elasticity of y :

$$|\eta_y| = \frac{\frac{\Delta y}{y}}{\frac{\Delta P_y}{P_y}}$$

$$\Delta y = y_2 - y_1 = y_2 - y_1 = \frac{1}{2} \quad \begin{matrix} \text{old} & \text{new} \\ P_y = 1 & P_y = 2 \end{matrix}$$

$$\Delta P_y = P_{y2} - P_{y1} = 2 - 1 = 1$$

$$\frac{\Delta y}{y} = \frac{\frac{1}{2}}{\frac{1}{2}} = 1$$

$$\frac{\Delta P_y}{P_y} = \frac{1}{1} = 1$$

$$|\eta_y| = \frac{1}{1} = 1$$

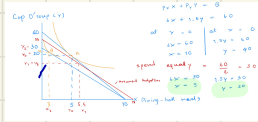
$$\frac{1}{2} \cdot \frac{1}{1} = \frac{1}{2} \quad \text{old} \rightarrow \text{new} \quad \text{old} \rightarrow \text{new}$$

$$|\eta_y| = 1 \quad \text{old} \rightarrow \text{new} \quad \text{old} \rightarrow \text{new} \quad \text{old} \rightarrow \text{new} \quad \text{old} \rightarrow \text{new}$$

#2

- A college student has two options for meals: eating at the dining hall for \$6 per meal, or eating a Cup O' Soup for \$2.20 per meal. Her weekly food budget is \$60.
 - Draw the budget constraint showing the trade-off between dining hall meals and Cups O' Soup. Assuming that she spends equal amounts on both goods, draw an indifference curve showing the optimum choice. Label the optimum as point A.
 - Suppose the price of a Cup O' Soup now rises to \$3. Using your diagram from part (a), show the consequences of this change in price. Assume that our student now spends only 20 percent of her income on dining hall meals. Label the new optimum as point B.
 - What happened to the quantity of Cups O' Soup consumed as a result of this price change? What does this result say about the income and substitution effects? Explain.
 - Use points A and B to draw a demand curve for the Cup O' Soup. What is this type of good called?

2. a)



b)

$$P_y = 1.5 \quad \begin{matrix} \text{old} & \text{new} \\ P_y = 1 & P_y = 1.5 \end{matrix}$$

$$\Delta y = y_2 - y_1 = y_2 - y_1 = \frac{1}{2} \quad \begin{matrix} \text{old} & \text{new} \\ P_y = 1 & P_y = 1.5 \end{matrix}$$

$$\Delta P_y = P_{y2} - P_{y1} = 1.5 - 1 = 0.5$$

$$\frac{\Delta y}{y} = \frac{\frac{1}{2}}{\frac{1}{2}} = 1$$

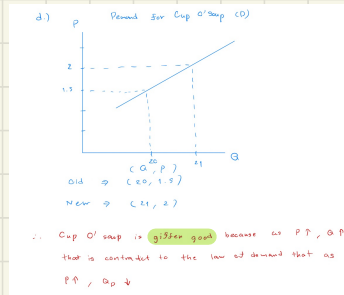
$$\frac{\Delta P_y}{P_y} = \frac{0.5}{1} = 0.5$$

$$|\eta_y| = \frac{1}{0.5} = 2$$

c)

C.) As a result of Price y increase, the consumption of Cup O' soup increase P

d)



#3

- Economist George Stigler once wrote that, according to consumer theory, "if consumers do not buy less of a commodity when their incomes rise, they will surely buy less when the price of the commodity rises." Explain this statement using the concepts of income and substitution effects.

If the consumer's income increases and doesn't buy less, that is because there is no change in the quantity of purchasing these goods. The commodity is normal goods.

On the other hand, due to the change in price, two effects are present: substitution and income effect. So a rise in price reduces purchasing power, forcing consumer to consume less.

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