

#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

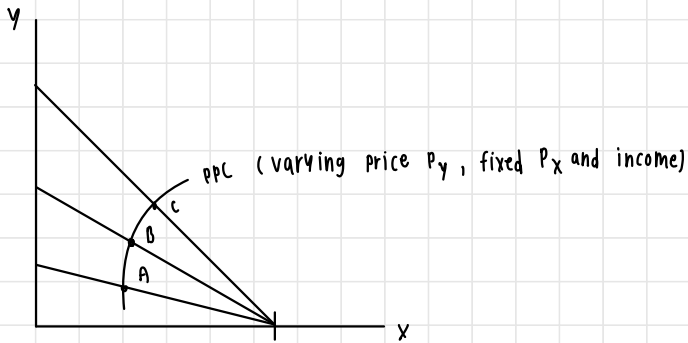
#2

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.
- 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 \$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.
 - 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 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. varying price P_y , fixed income and P_x



price elasticity of y

$$\eta_y = \frac{\% \Delta Y}{\% \Delta P_y}$$

$|\eta_y| < 1$ when ΔP_y is less than ΔY (inelastic) the demand for y is not change significantly after P_y rises

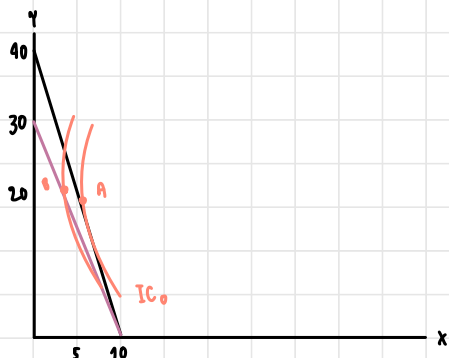
$|\eta_y| > 1$ when ΔP_y is greater than ΔY which mean the demand for y is sensitive to price increase

$|\eta_y| = 1$ when the price increase but cause no change in revenue for the seller.

2 x be dining - hall meals

y be cup o' soup

$$P_x X + P_y Y = B \Rightarrow 6X + 1.5Y = 60$$



find IC_0

$$6X = 30 \Rightarrow X = 5$$

$$1.5Y = 30 \Rightarrow Y = 20$$

$$A = (5, 20)$$

find IC_1

$$6X = 18 \Rightarrow X = 3$$

$$2Y = 42 \Rightarrow Y = 21$$

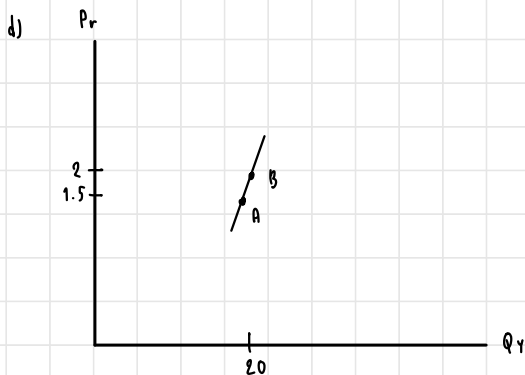
$$B = (3, 21)$$

b) P_y increase to \$2 $\rightarrow$ New P_y

$$\text{New budget line : } 6X + 2Y = 20$$

$$6X = 18 \Rightarrow X = 3$$

c) When price change, the student can consume 1 more of cup o' soup.



when price of y increase, the consumption of y decrease.

3. - If price of good increase the substitution effect make consumer buy less of good

- If the price of good increase, the consumer consume less of good