#1 Demonstrate how PCC with varying price Py, (Px 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.

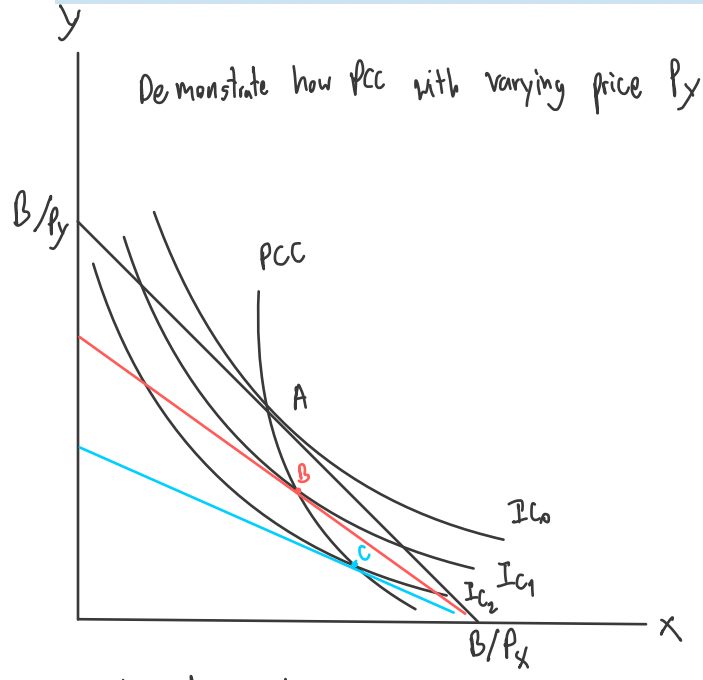
   c. What happened to the quantity of Cups O' Soup consumed as a result of this price change? What does this result say about the income and substitution effects? Explain.

   d. Use points A and B to draw a demand curve for Cup O' Soup. What is this type of good called?

#3

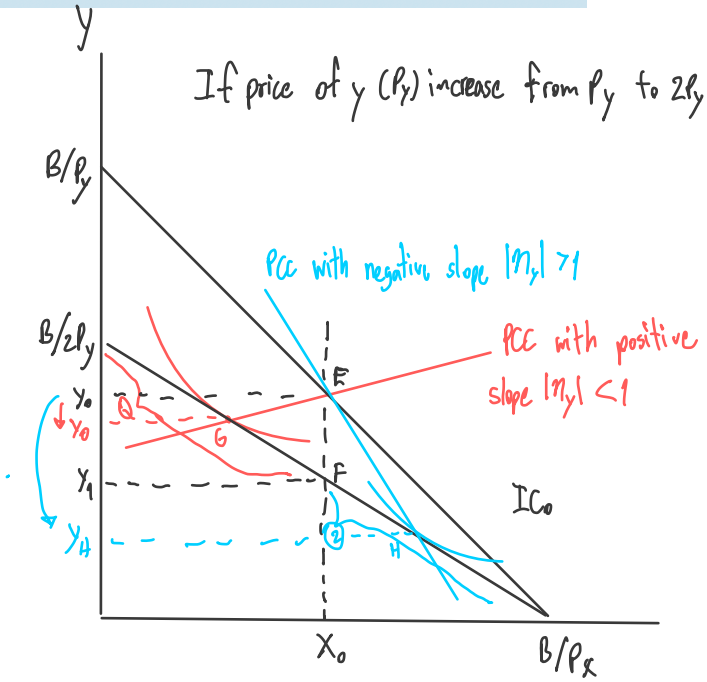
11. Economist George Stigler once wrote that, according to consumer theory, "if consumers do not buy less of a commodity when their incomes rise, they will surely buy less when the price of the commodity rises." Explain this statement using the concepts of income and substitution effects.

#1



noted: Demand elastic when $|\eta_o| > 1$

Demand inelastic when $|\eta_o| < 1$



In ①, the price elasticity of y is inelastic $\Rightarrow |\eta_y| < 1$

In ②, the price elasticity of y is elastic $|\eta_y| > 1$

A+F, the price elasticity of y $|\eta_y| = 1$

#2 • Let C = amount of meals at Cup o' Soup

• Let D = amount of meals at Dining hall

• Budget line ⇒ $6D + 1.5C = 60$, $6D = 60 \Rightarrow D = 10$

find x, y-intercept $1.5C = 60 \Rightarrow C = 40$

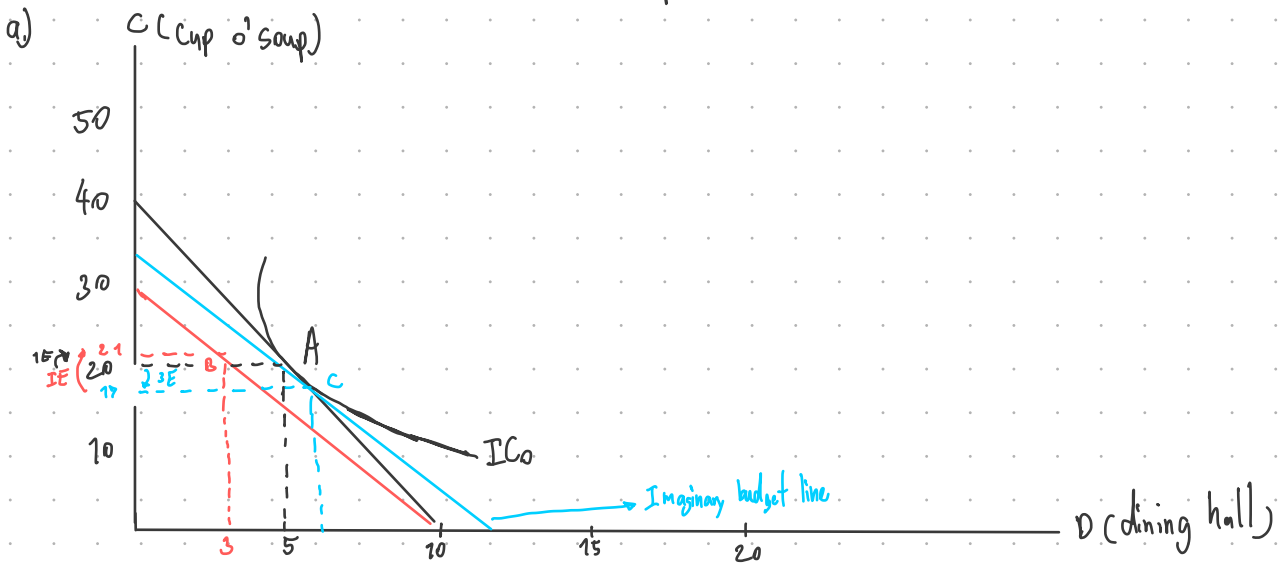
• He spent equal amount on each good, $\frac{60}{2} = 30$ is the amount he spent on each.

$6D = 30$ $1.5C = 30$

$D = 5$ $C = 20$

• the optimum point (A) is at (5, 20)

a)



b) If price of C increases from 15 to 2 and he spends 30% of income on D

$60 = \frac{30}{100} \times 60$ $2C = \frac{70}{100} \times 60$

$D = 3$ $C = 21$

new budget line: $6D + 2C = 60$

find x, y-intercept $6D = 60$ $2C = 60$

$D = 10$ $C = 30$

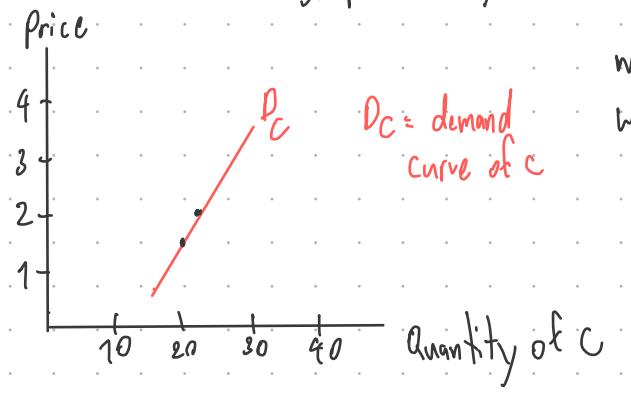
c) as the price of increase, the total effect is increase.

for the substitution effect, the consumption decrease ⇒ when price increase, the substitution effect (fixed real income) cause the reduction of C.

for the income effect, the consumption increase ⇒ when price increase, the income effect cause the increasing of C.

∴ As the graph above, income effect outweighed the substitution effect, so the total effect will increase.

d)



D_C = demand curve of C

when price of C = 1.5 $Q_C = 20$

when price of C > 2 $Q_C = 21$

As the curve has positive slope, meal at Cups o' soup is griffen good

3

If consumers don't buy less of good when their income rises this good will be normal good. For normal good, the income and subsitution effects both imply that the consumer will buy less if the prices rises.