#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.

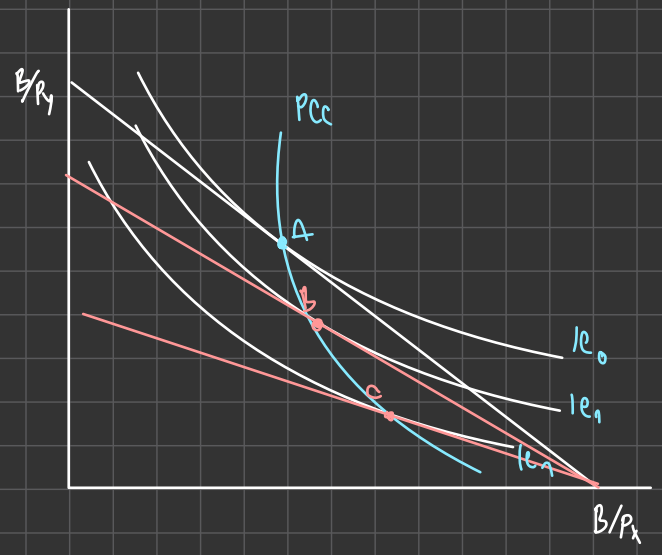
   c. What happened to the quantity of Cups O' Soup consumed as a result of this price change? What does this result say about the income and substitution effects? Explain.

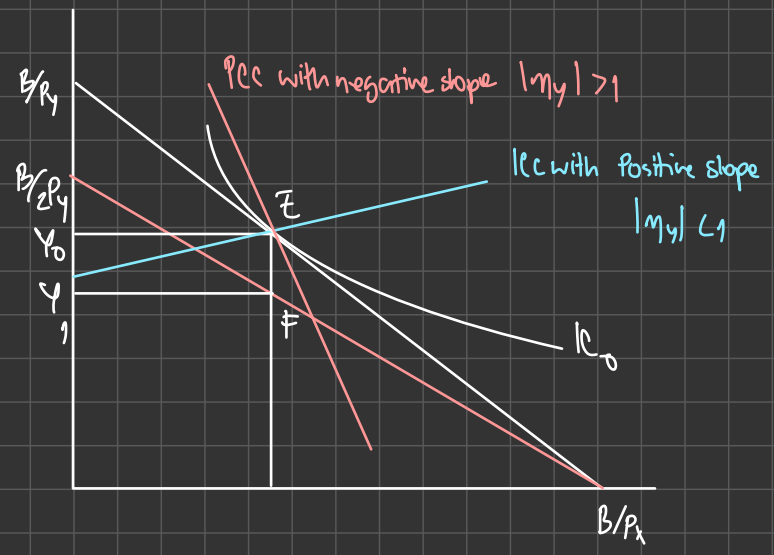
   d. Use points A and B to draw a demand curve for Cup O' Soup. What is this type of good called?

#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 $|\eta_D| > 1$

Demand elastic when $|\eta_D| < 1$

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

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

At F the price elasticity of y $|\eta_y| = 1$

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② let C : amount of meals at Cup O' soap

let D - " ——————— " dining hall

Budget line → $6D + 1.5C = 60$

find x,y intercept

$6D = 60 \rightarrow D = 10$

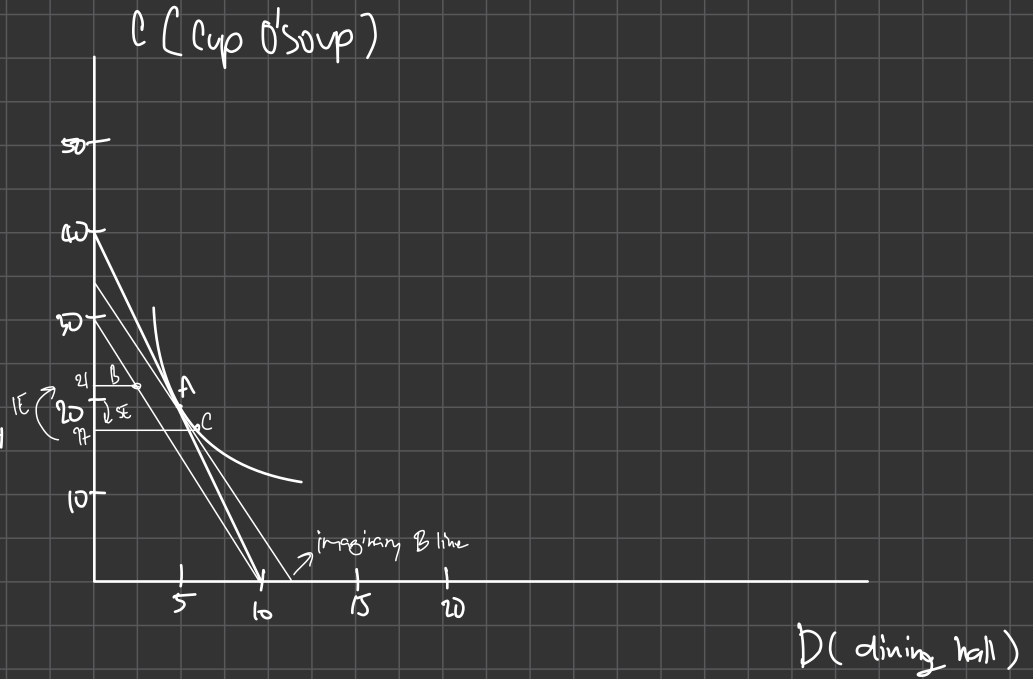
$1.5C = 60 \rightarrow C = 40$

As he spent equal amount on each good he spent on each $\frac{60}{2} = 30$ is the amount

$6D = 30$ $\quad$ $1.5C = 30$

$D = 5$ $\quad$ $C = 20$

∴ the optimum point (A) is at (5,20)



b) If price of C increase from 1.5 to 2 and he spends 30% of income on D

$6D = \frac{30}{100} \times 60$ $\quad$ $2C = \frac{70}{100} \times 60$

$6D = 18$ $\quad$ $2C = 42$

$D = 3$ $\quad$ $C = 21$

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

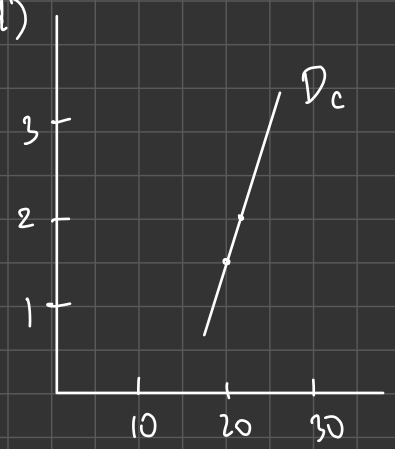
(x,y) intercept $\quad D = 10 \quad C = 30$

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

- for the substitution effect, the consumption decrease
  - ↳ when price increase, the substitution effect (fixed real income) → reduction of C
- for the income effect, the consumption increase → when price increase, the income effect cause increasing in C

∴ Income effect outweighed the substitution effect, so total effect will increase

d)



when price of C = 1.5 $Q_C = 20$

C = 2 $Q_C = 14$

D_C = demand curved of C

∴ Cups of soup is giffen goods

(3) If consumer don't buy less of good when their income increases, this good will be normal goods.

for normal goods, the income and substitution effects both imply that the consumer will buy less if price increase.