#1 If the price Px and Py increase 10% at the same time, with income Remaining unchanged, show that this is equivalent to a reduction in income.

#2 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

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.

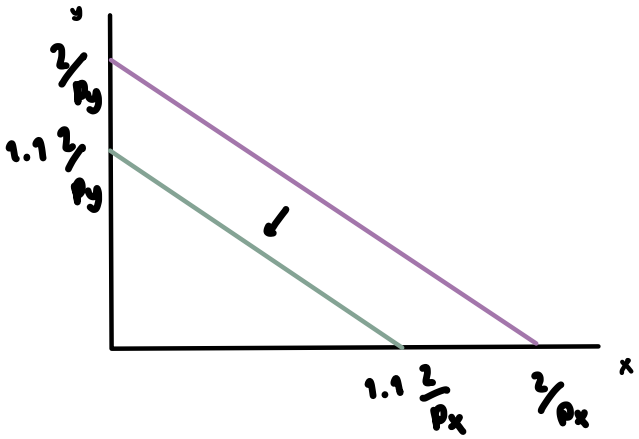
   a. Draw the budget constraint showing the trade-off between dining-hall meals and Cups O' Soup. Assuming that she spends equal amounts on both goods, draw an indifference curve showing the optimum choice. Label the optimum as point A.

   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?

#1. when both P_x and P_y change with income remain the same the budget line will shift which can be equivalent to the reduction in income because when both prices increase consumer will feel even poorer even though their income remains the same.



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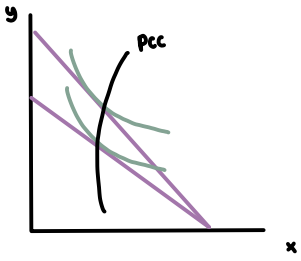

elastic

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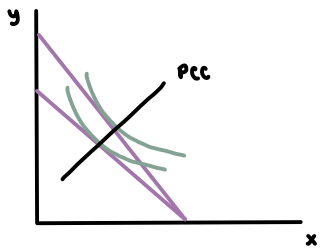

inelastic

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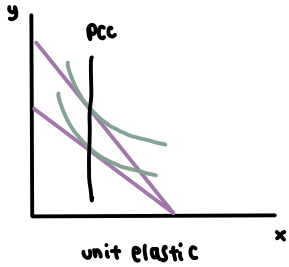

unit elastic

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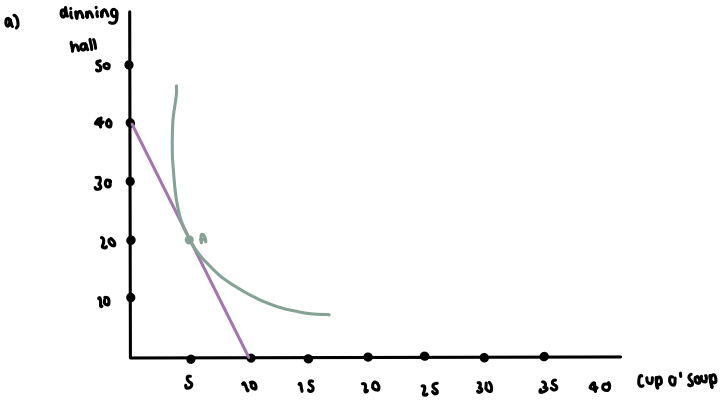
#7

a)



budget line : $M = (P_x \cdot Q_x) + (P_y \cdot Q_y)$

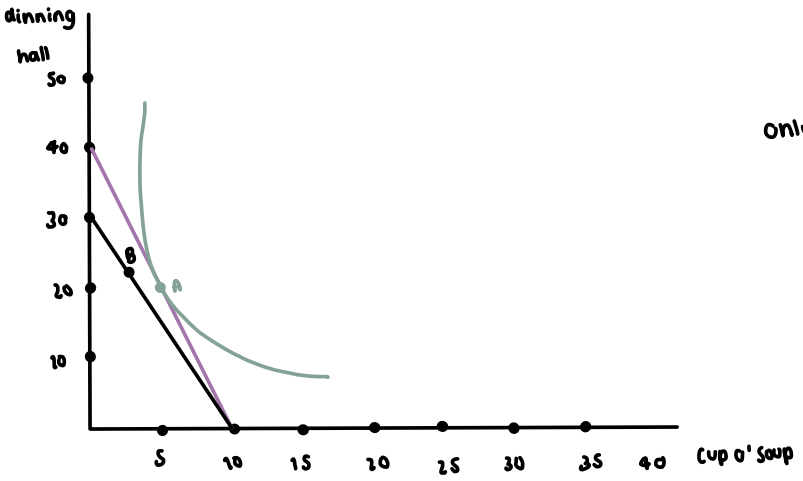
DH : $Q_x = \frac{M}{P_x}$ $\quad Q_x = \frac{60}{6}$ $\quad Q_x = 10$

COS : $Q_y = \frac{M}{P_y}$ $\quad Q_y = \frac{60}{1.5}$ $\quad Q_y = 40$

split the budget in half: $bd = \frac{1}{2} \times 60$ $\quad d = \frac{30}{6}$ $\quad d = 5$

$1.5d = \frac{1}{2} \times 60$ $\quad d = \frac{30}{1.5}$ $\quad d = 20$

b)

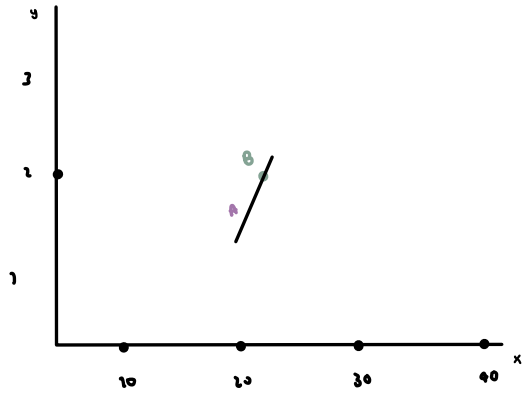


Only 30% of income : $bd = \frac{30}{100} \times 60$ $\quad d = \frac{18}{6}$ $\quad d = 3$

$2c = \frac{70}{100} \times 60$ $\quad c = \frac{42}{2}$ $\quad c = 21$

c) as the price change the consumption of meals at cups o' soup increased by 1. with the result of income effect because the consumption increased since a meal at cups o' soup is an inferior goods and the fall of real income resulted into increase in it consumption

d)



the demand curve for cups o' soup would pass through (20, 1.5) and (21, 2)

∴ demand slope is positive

the meal at cups o' soup is giffen goods