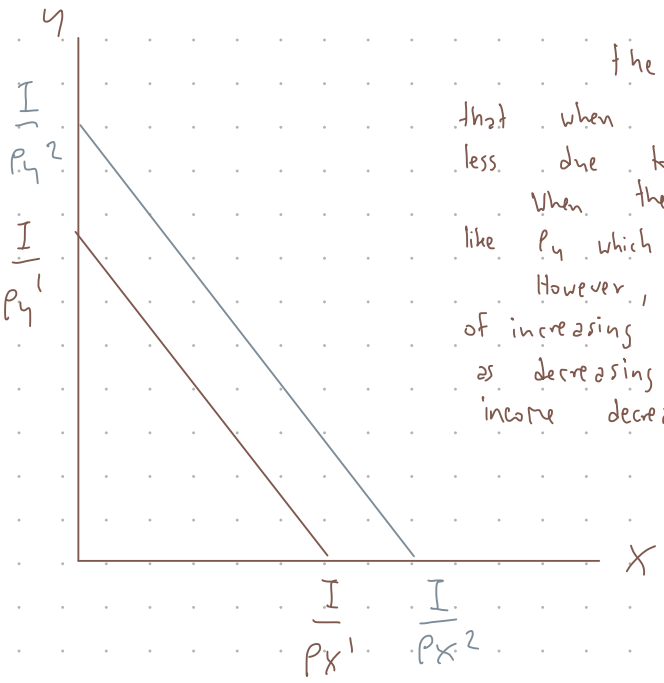
#1 If the price Px and Py increase 10% at the same time, with income Remaining unchanged, show that this is equivalent to a reduction in income.

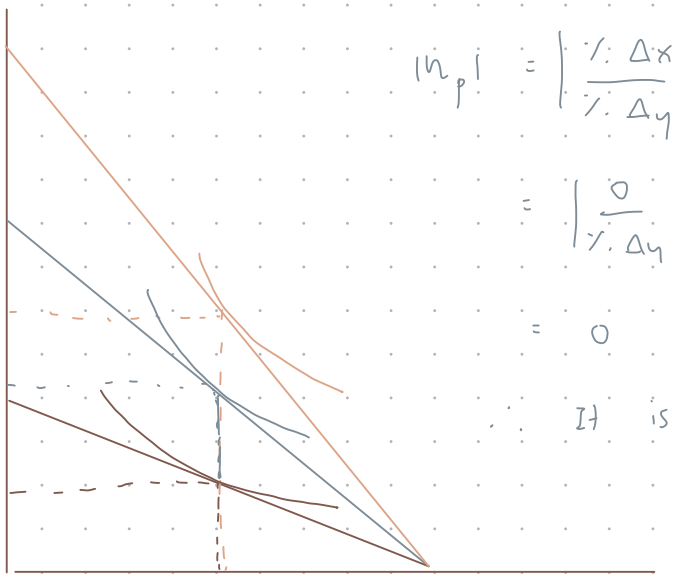


the decreasing rate of income will affect Px and Py that when Income was decrease, price will decrease more and less due to the decreasing rate of income as well.

When the income of Px is going to drop down price of Px, like Py which is able to affect only Py.

However, it's sperific in this case due to 10% rate of increasing of Px and Py which giving the same result as decreasing of income (for 10%) without neither income decreasing nor increasing.

#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



$$|n_p| = \left| \frac{\% \Delta x}{\% \Delta y} \right|$$

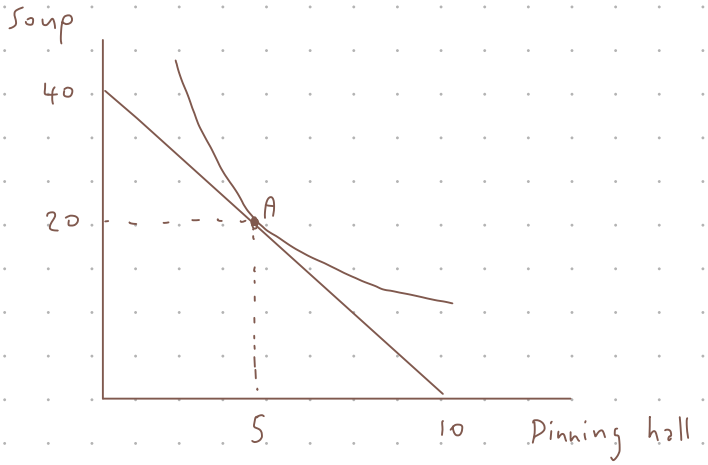
$$= \left| \frac{0}{\% \Delta y} \right|$$

$$= 0$$

∴ It is a perfectly inelastic

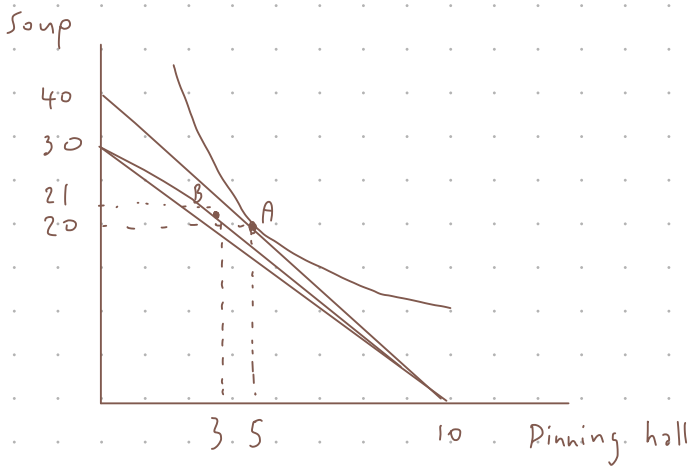
7. A college student has two options for meals: eating at the dining hall for $6 per meal, or eating a Cup O' Soup for $1.50 per meal. Her weekly food budget is $60.

   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.



budget = 60 $

   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.

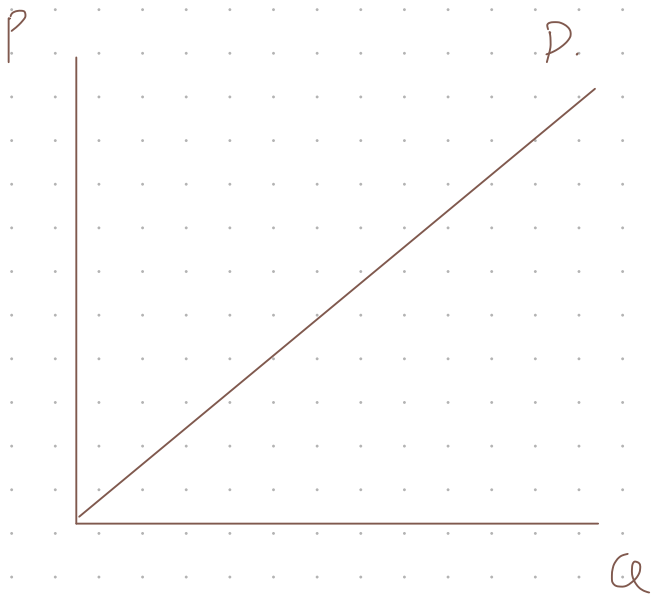


budget = 60 $

   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.

When there are 3 dinning hall meals on indifference curve I1, B will constitute an increased quantity of Cups O' soups. So for a rise in price, the soups was consumed more. Then, the substitution effect of price rise makes the consumer buy less of soups because it is expensive now. The income effect make the student buy more of soups for soups which is inferior good and when the students is buying more of soups, this refer that the income effect is negative and stronger that the substitution effect.

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



P↑ → ↑Qd

increase in Price
lead to
increase in Quantity

So this called giffen good.