HW 11 due 3 Apr. 2022

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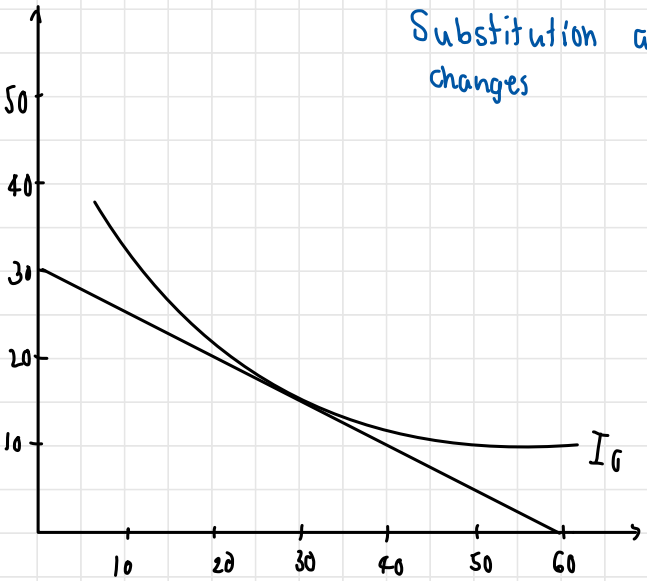
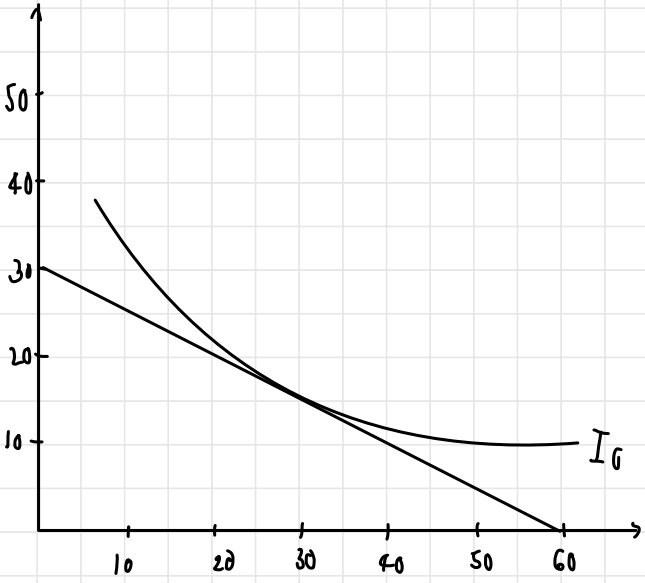
Substitution and Income Effect when P_y changes



$P_x = 2$
$P_y = 4$
Budget = 120
P_y ↑ to 3

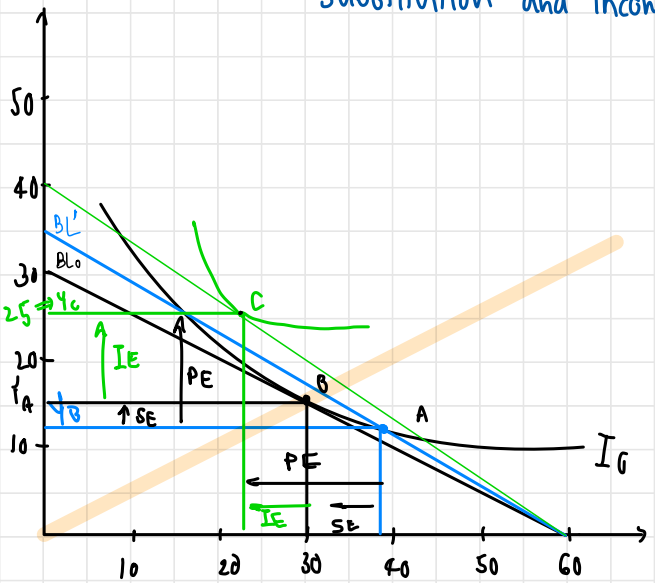
show substitution Effect and Income effect with x being inferior goods



$P_x = 2$
$P_y = 4$
Budget = 120
P_x increase to 3

Show substitution effect and income effect with X being luxury goods.

Substitution and Income Effect when P_Y changes.



$P_X = 2$
$P_Y = 4$
Budget = 120
P_X increase to 3

show substitution Effect and Income effect with X being inferior goods

As X is luxury goods it means that if $P_X \uparrow \rightarrow Q_X \downarrow\downarrow$
$P_X \downarrow \rightarrow Q_X \uparrow\uparrow$

- Originally, this consumer consume at point A where it is having an optimum utility and spending all of budget effectively; which X = 30 units and y = 25 units.
  → Max Q_X that can consume: $\frac{120}{2} = 60$ units
  → " Q_Y " $\frac{120}{4} = 30$ units

- Substitution Effect (A → B)
  As price of Y decreases, consumer will consume more Y (from $Y_A \rightarrow Y_B$); normal good and have to sub by decreasing amount of x from X_A to X_B, keeping the same utility; change from point A → B which create imaginary budget line as BL'

  : SE : $P_Y \downarrow \rightarrow Q_Y \uparrow$ sub by $Q_X \downarrow$; $\bar{U}$

- Income Effet (B → C)
  As P_Y decreases to 3, therefore this consumer has more ability to buy product Y; having more real income $\left[\frac{B}{P_Y} \uparrow\right]$ so consumer will consume $Q_X \downarrow$: inferior good
  $Q_Y \uparrow$: normal good (law of Demand)
  → max Q_Y is $\frac{120}{3} = 40$ units
  → max Q_X remain the same as price doesnot change so the budget line rotate from BL_0 to BL_1

  ∴ IE : $P_Y \downarrow \rightarrow$ Real Inc. $\uparrow \rightarrow Q_X \downarrow$ & $Q_Y \uparrow$

Sorry for
late kub Ajarn
I forget to submit
on time because I
got cold yesterday.