HW#9 Due April 22, 2021

Rattiya Klakhang
6304641282

Substitution and Income Effect when Py changes

Px = 2
Py = 4
Budget = 120 } $2x+4y=120$

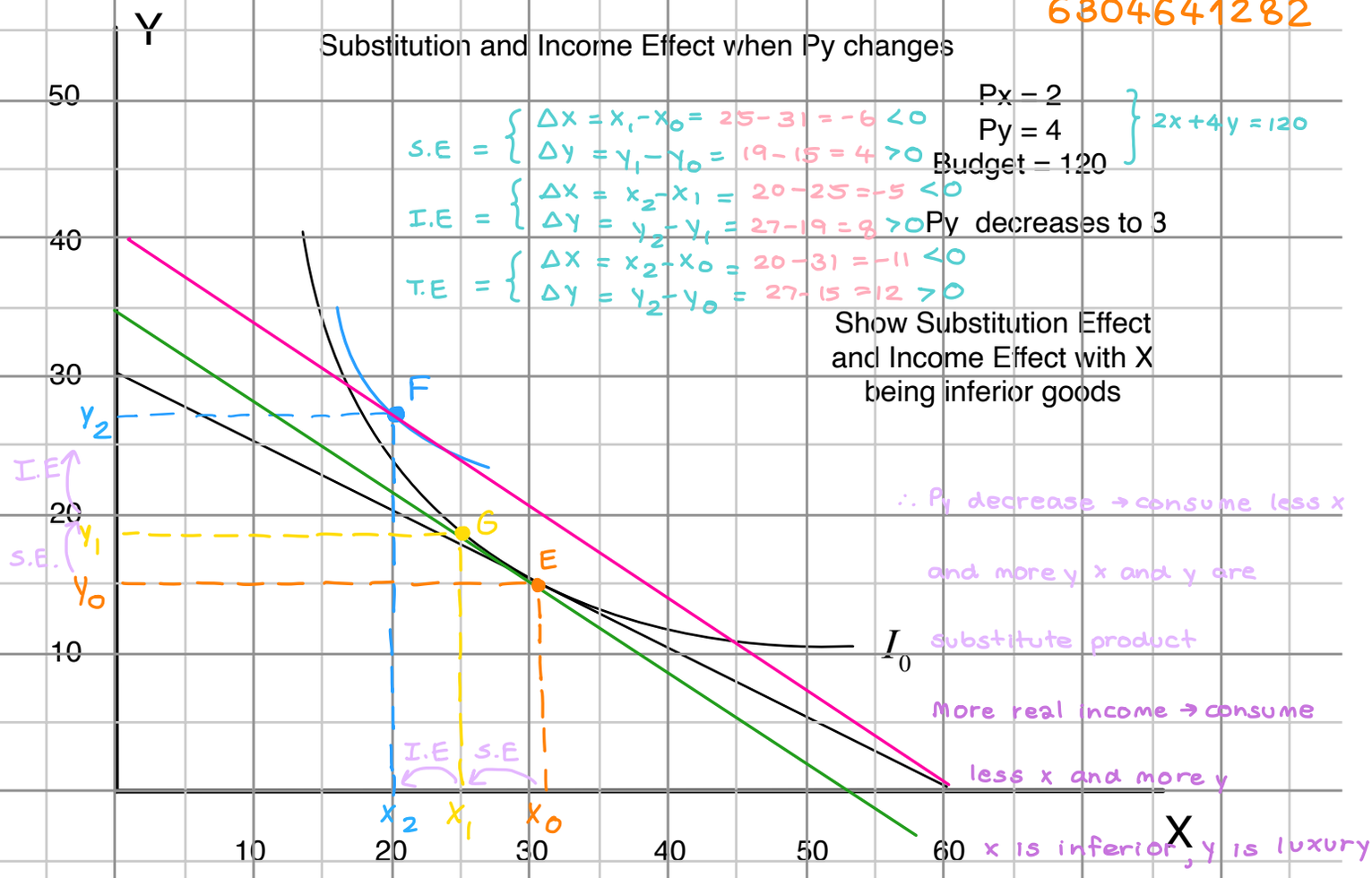
Py decreases to 3

$S.E = \begin{cases} \Delta x = x_1 - x_0 = 25-31 = -6 < 0 \\ \Delta y = y_1 - y_0 = 19-15 = 4 > 0 \end{cases}$

$I.E = \begin{cases} \Delta x = x_2 - x_1 = 20-25 = -5 < 0 \\ \Delta y = y_2 - y_1 = 27-19 = 8 > 0 \end{cases}$

$T.E = \begin{cases} \Delta x = x_2 - x_0 = 20-31 = -11 < 0 \\ \Delta y = y_2 - y_0 = 27-15 = 12 > 0 \end{cases}$

Show Substitution Effect and Income Effect with X being inferior goods



∴ Py decrease → consume less x and more y x and y are substitute product

More real income → consume less x and more y

x is inferior, y is luxury

$S.E = \begin{cases} \Delta x = x_1 - x_0 = 22-31 = -9 < 0 \\ \Delta y = y_1 - y_0 = 21-15 = 6 > 0 \end{cases}$

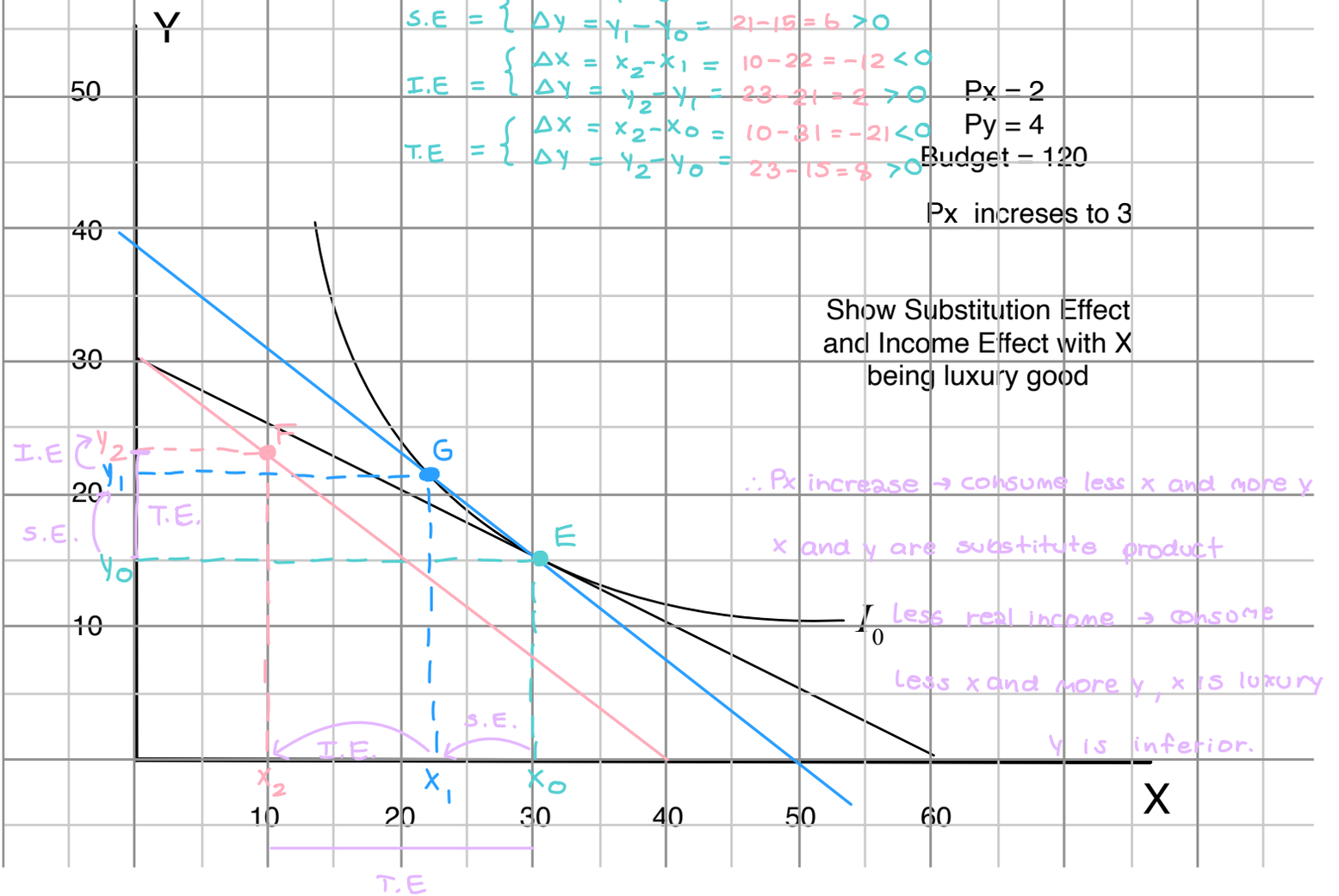
$I.E = \begin{cases} \Delta x = x_2 - x_1 = 10-22 = -12 < 0 \\ \Delta y = y_2 - y_1 = 23-21 = 2 > 0 \end{cases}$

$T.E = \begin{cases} \Delta x = x_2 - x_0 = 10-31 = -21 < 0 \\ \Delta y = y_2 - y_0 = 23-15 = 8 > 0 \end{cases}$

Px = 2
Py = 4
Budget = 120

Px increses to 3

Show Substitution Effect and Income Effect with X being luxury good



∴ Px increase → consume less x and more y x and y are substitute product

Less real income → consome less x and more y, x is luxury y is inferior.