

old: $2x + 4y = 120$
 new: $2x + 3y = 120$

X is inferior

- The eq point changes from $E = (x_0, y_0)$ to $F = (x_2, y_2)$

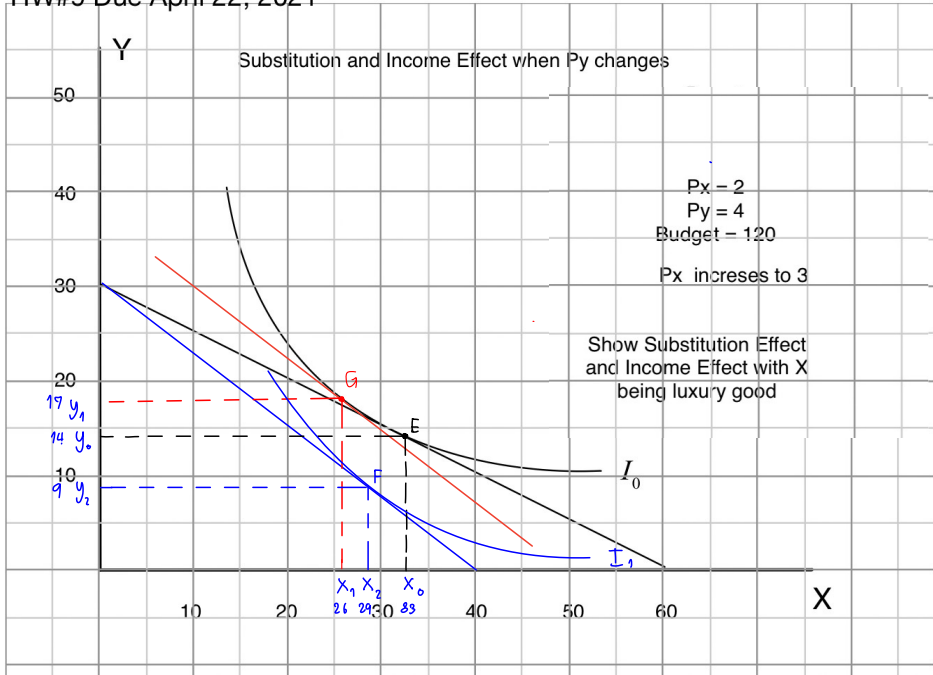
- relative price changes from $\frac{P_x}{P_y} = \frac{2}{4} = \frac{1}{2}$ to $\frac{P_x}{P_y'} = \frac{2}{3}$

- S.E. = $\begin{cases} \Delta x = x_1 - x_0 = 27 - 32 = -5 < 0 \\ \Delta y = y_1 - y_0 = 17 - 14 = 3 > 0 \end{cases}$

- I.E = $\begin{cases} \Delta x = x_2 - x_1 = 22 - 27 = -5 < 0 \\ \Delta y = y_2 - y_1 = 25 - 17 = 8 > 0 \end{cases} \left. \begin{array}{l} x \text{ is inferior} \\ y \text{ is luxury} \end{array} \right\}$

- T.E = $\begin{cases} \Delta x = x_2 - x_0 = 22 - 32 = -10 \\ \Delta y = y_2 - y_0 = 25 - 14 = 11 \end{cases}$

HW#9 Due April 22, 2021



old: $2x + 4y = 120$
 new: $3x + 4y = 120$

X is luxury

- The eq point changes from $E = (x_0, y_0)$ to $F = (x_2, y_2)$

- relative price changes from $\frac{P_x}{P_y} = \frac{2}{4} = \frac{1}{2}$ to $\frac{P_x}{P_y} = \frac{3}{4}$

- S.E. = $\begin{cases} \Delta x = x_1 - x_0 = 26 - 33 = -5 < 0 \\ \Delta y = y_1 - y_0 = 17 - 14 = 3 > 0 \end{cases}$

- I.E. = $\begin{cases} \Delta x = x_2 - x_1 = 29 - 26 = 3 > 0 \\ \Delta y = y_2 - y_1 = 9 - 17 = -8 < 0 \end{cases} \left. \begin{array}{l} x \text{ is luxury} \\ y \text{ is inferior} \end{array} \right\}$

- T.E. = $\begin{cases} \Delta x = x_2 - x_0 = 29 - 33 = -4 < 0 \\ \Delta y = y_2 - y_0 = 9 - 14 = -5 < 0 \end{cases}$