# #1

12. Five consumers have the following marginal utility of apples and pears:

| | Marginal Utility of Apples | Marginal Utility of Pears |
|---|---|---|
| Claire | 6 | 12 |
| Phil | 6 | 6 |
| Haley | 6 | 3 |
| Alex | 3 | 6 |
| Luke | 3 | 12 |

The price of an apple is $1, and the price of a pear is $2. Which, if any, of these consumers are optimizing their choices of fruit? For those who are not, how should they change their spending?

1.

- Claire is the only one who optimized her choice best due to Marginal utility compared to others.
- For those who are not, they should change their spending like this

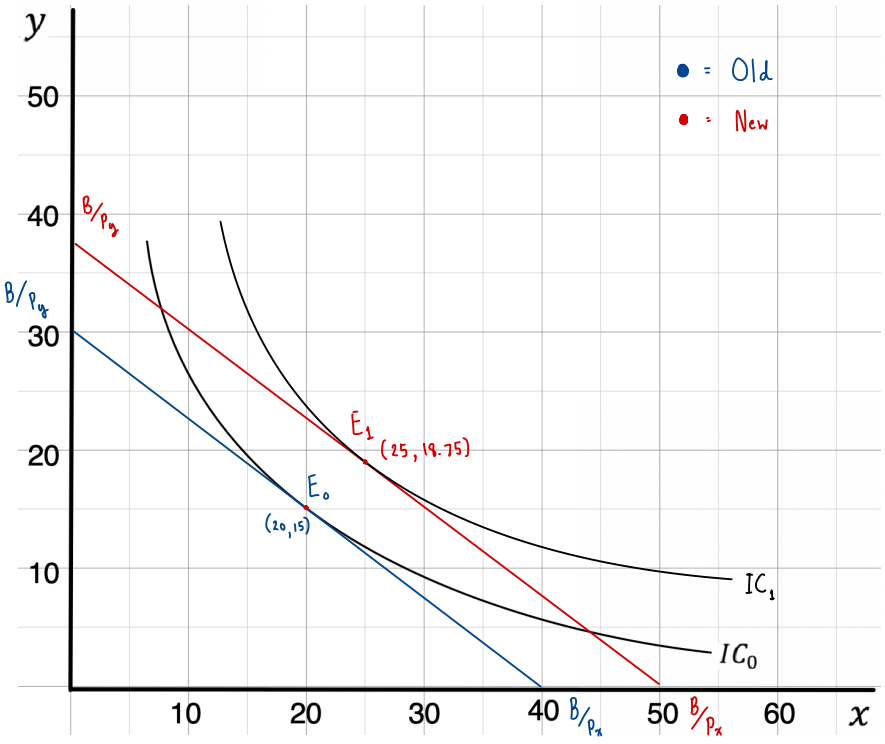
Phil : spend all for apples

Haley : spend all for apples

Alex : spend whatever b/c it will fit equally

Luke : spend all for pears

#2 Given the price of x = 3, price of y = 4, and budget = 120.




2.

A) $E_0 = (20, 15)$

B) (Old) $3x + 4y = 120$

(New) $3x + 4y = 150$ $\therefore$ $x = 50$, $y = 37.5$

The new equilibrium will change from $E_0(20,15)$ to $E_1(25, 18.75)$

A) Draw the budget line and find the equilibrium with the given indifference curve IC in the diagram below.
B) If the income increases from 120 to 150, where will be the new equilibrium so that the change in the consumption of x be such that the Income Elasticity of x is equal to 1.
C) With the change of equilibrium you found in (B), what will be the Income Elasticity of y?

C) Solution:

$$\frac{\%\,\Delta y}{\%\,\Delta I} = \frac{\frac{18.75 - 15}{15}}{\frac{150 - 120}{120}} = \frac{0.25}{0.25} = 1 > 0$$

Ans. when Budget increases, consume y more.