

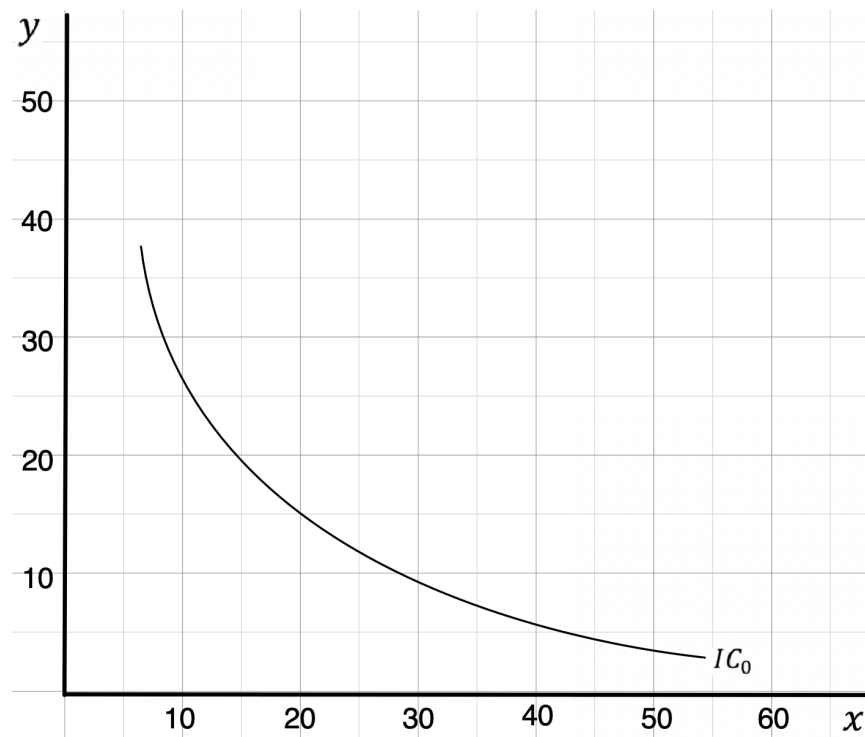
#1

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?

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



- Draw the budget line and find the equilibrium with the given indifference curve IC in the diagram below.
- 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.
- With the change of equilibrium you found in (B), what will be the Income Elasticity of y ?

1

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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?

Claire

Apples: $\frac{6}{1} = 6$

Pears: $\frac{12}{2} = 6$

Phil

Apples: $\frac{6}{1} = 6$

Pears: $\frac{6}{2} = 3$

Haley

Apples: $\frac{6}{1} = 6$

Pears: $\frac{3}{2} = 1.5$

Alex

Apples: $\frac{3}{1} = 3$

Pears: $\frac{6}{2} = 3$

Luke

Apples: $\frac{3}{1} = 3$

Pears: $\frac{12}{2} = 6$

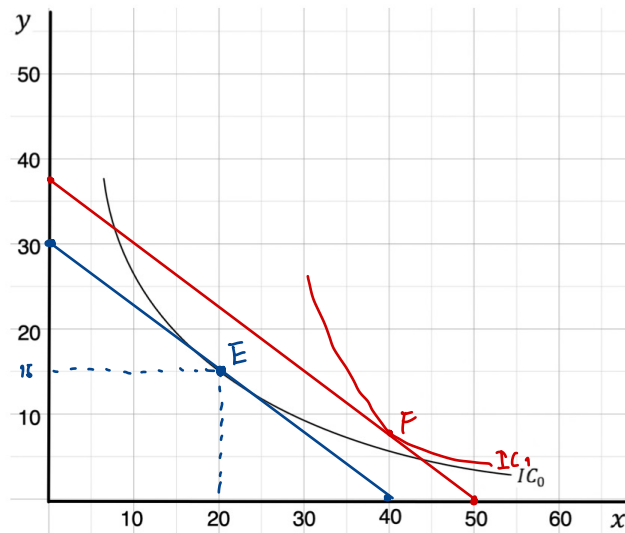
The consumers that has the marginal utility is equal are Claire and Alex choices which are optimal.

Phil should consume more apples and reduce the consumption of pears.

Haley should consume more apples and reduce the consumption of pears.

Luke should consume less apples and consume more pears.

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



$$y = \frac{120}{4} = 30$$

$$x = \frac{120}{3} = 40$$

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 ?

A) At point E (20, 15)

B) $\frac{150}{3} = 50$ $\frac{150}{4} = 37.5$
 x

At point F (40, 7.5)

As it said the change in increasing income will be affected the product x and also the Elasticity of x is equal to 1. This means when there is a rise in income, consumption of the good will rise.

$\therefore$ Therefore, its consumption of x will increase and consumption of y will be dropped.

c) The elasticity of y will go down and the demand of product y becomes less

$$\eta_y < 0$$

Inferior