

ECO135 Quiz 2 (Nov. 25.2008)

1. If Ali's Marginal Rate of Substitution of X for Y is 3, the price of X is 10 YTL and the price of Y is 2 YTL.

(a) Do you agree with the statement "Ali is spending too much for his income on Y"? Explain.

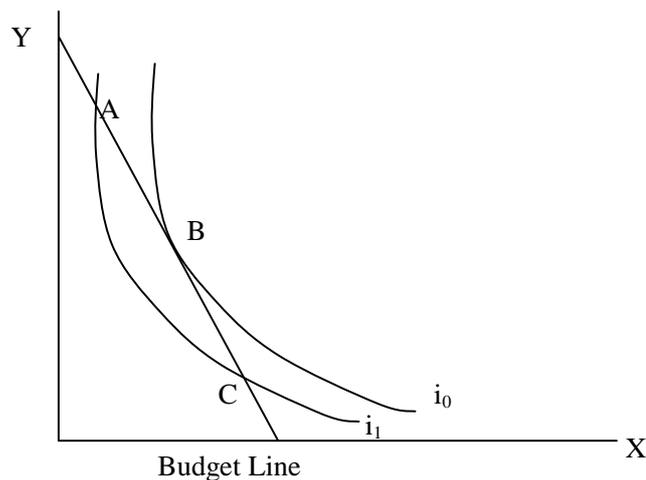
Disagree:

$MU_x/MU_y = 3$, $P_x/P_y = 10/2 = 5$, Therefore, now we have $MU_x/MU_y < P_x/P_y$.

$\Rightarrow MU_x/P_x < MU_y/P_y$

This situation tells you that the marginal utility from the last 1 YTL spent on Y is greater than the marginal utility from the last 1 YTL spent on X. If Ali switches last 1 YTL from X consumption to Y consumption, he can increase his utility. Therefore, he should spend more on Y.

(b) Which points (A, B or C) illustrates current Ali's consumption pattern in the figure?



Answer: C

Where MU_x/MU_y (the slope of the indifference curve (i_1) at C is less than the slope of the budget line P_x/P_y .

(c) What do you recommend him to do?

Increase the consumption of Y

(d) At point B, the condition for utility maximization is met. Write the condition.

$MU_x/MU_y = P_x/P_y$

2. Given the price of X is 10 YTL, the price of Y is 20 YTL and the income is 100 YTL, answer the following questions.

- Draw the Budget Line: **Budget Line (a)**
- Draw an indifference curve which determines a unique utility maximizing consumption bundle (combination) of X and Y. : **Indifference curve i_0** .
- Suppose now that the price of Y increases to 25 YTL.

- Show
- Income Effect : **B \rightarrow C**
 - Substitution Effect: **A \rightarrow B**
 - Total Effect : **A \rightarrow C**

by adding necessary curves and points.

- Procedures:**
- Draw new budget line based on new price of Y (B.L. (c))
 - Draw a indifference curve (i_1)
 - Draw a budget line (B.L. (c-ii)) which is parallel to B.L. (c) and being tangent to original indifference curve, i_0 .
 - Label each tangency point A, B and C.
 - A \rightarrow B is substitution effect
 - B \rightarrow C is income effect
 - A \rightarrow C is total effect.

- Label important points clearly.
- Describe each curve you added in words.

