Assignment 2

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Quantity	MU_h	MU_c	$\frac{MU_h}{P_h}$	$\frac{MU_c}{P_c}$	choice	remain budget
1	15	12	15	12	15/12	7-1 = 6
2	11	9	11	9	11/12	6-1 = 5
3	9	6	9	6	11/9	5-1 = 4
4	6	5	6	5	9/9	4-1 = 3
5	4	3	4	3	9/6	3-1 = 2
6	3	2	3	2	6/6	2-1 = 1
7	1	1	1	1	4/6	1-1 = 0

a. belle choose 1 more unit, It would provide her net benefit, so belle buy in the amount which net benefit for each product equal to each other $\frac{MU_h}{P_h} = \frac{MU_c}{P_c}$ she can choose to buy 4 ham and 3 cheese to maximize her utility and use all the budget.

b. Maximize the utility, it should be $MU = 0$ which is not presented in the table and the budget would be insufficient.

② $\left|MRS_{xy}\right| = \left|\frac{\Delta Y}{\Delta X}\right| = \frac{MU_x}{MU_y}$ from point A to B $= \frac{MU_x}{MU_y} = \frac{9}{2}$

a. If A and B are on consumer's equilibrium $\frac{MU_x}{P_x} = \frac{MU_y}{P_y}$

$\frac{9}{P_x} = \frac{2}{10}$ $\therefore P_x = 45$ baht / unit

b. from (a) : $\frac{MU_x}{P_x} = \frac{MU_y}{P_y}$ if $P_x = 180$ then $P_y = \frac{MU_y}{MU_x} \cdot P_x = \frac{2}{9} \cdot 180 = 40$ b/unit

The budget should be $I = x \cdot P_x + y \cdot P_y = 4 \cdot 180 + 9 \cdot 40 = 1,080$ baht
(on point B where $x = 4, y = 9$)

c. from C to B ; This consumer gives up 9 units of nuts and her utility decrease 4 units from IC_2 to IC_1

from B to D ; This consumer gained more 4 units of avocado and gained utility more 4 units from IC_1 to IC_2 so the average mu/unit avocado $= \frac{4}{4} = 1$

D. IC_1 (from A to B) : consumers give up 9 units of nuts to have 2 more units of avocado (2 → 4 units)

IC_2 (from C to D) : consumers give up 9 units of nuts to have 4 more units of avocado (4 → 8 units)

MU_y (nuts) from 9 to 18 units equal on both IC_1 and IC_2. As you can see that in oreder to get same MU_y, consumer has to consume avocado more Therefore, when the more consuming avocado, the less marginal utility in accordance with the law of diminishing marginal utility.