1

budget = 7

	ham h		cheese c		$\frac{MU_h}{P_h}$	$\frac{MU_c}{P_c}$	choice	remaining budget
	TU	MU	TU	MU				
1	15	15	12	12	15	12	h_1	7 - 1 = 6
2	26	11	21	9	11	9	c_1	5
3	35	9	27	6	9	6	h_2	4
4	41	6	32	5	6	5	c_2	3
5	45	4	35	3	4	3	h_3	2
6	48	3	37	2	3	2	c_3	1
7	49	1	38	1	1	1	h_4	0

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1a Belle has 7 $ budget, she should purchase 4 hams and 3 cheese to maximize her utility

↳ because of $\frac{MU_x}{P_x}$ or net benefit she can get the most as in the table above

1b Her utility will not be maximized compared with her budget and MU

↳ the maximize condition of utility is at equilibrium

2a $MRS = \frac{P_x}{P_y} = \frac{\Delta y}{\Delta x} = \frac{9}{2} = 4.5$

↳ $P_y = 10$

$\frac{P_x}{10} = \frac{\Delta Y}{\Delta X}$ $\frac{P_x}{10} = \frac{9}{2}$ $P_x = 45$

2b point A $P_x = 45$ $P_y = 10$

↳ assume $P_x = 180 \longrightarrow P_y = 40$

point B $X = 4$ $Y = 9$

budget : $P_x X + P_y Y$

$= (180 \cdot 4) + (40 \cdot 9)$

$= 1080$

2c $MU_C = \frac{\Delta TU}{\Delta x}$ $= \frac{12-8}{4-2} = 2$

$MU_D = \frac{\Delta TU}{\Delta x}$ $= \frac{12-8}{8-4} = 1$

Average MU of avocado $= \frac{2+1}{2} = 1.5$

2d $MU_x = \frac{\Delta U}{\Delta x}$

A, C

A $x = 2$ $U = 8$

C $x = 4$ $U = 12$

$= \frac{12-8}{4-2} = 2$

B, D

B $x = 4$ $U = 8$

D $x = 8$ $U = 12$

$= \frac{12-8}{8-4} = 1$

$MU_x \downarrow$ (A, C → B, D)