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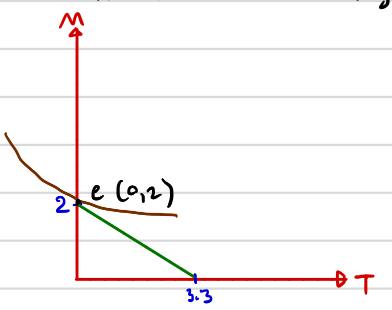
# Question (1)

## (1.a)

M = Number of times traveling to Maldives
T = Number of times traveling to Thailand




$$\frac{MU_T}{P_T} = \frac{MU_M}{P_M}$$

$$\frac{MU_T}{3000} = \frac{MU_M}{5000} \rightarrow (MU_M = 2MU_T)$$

$$\frac{1}{3000} < \frac{2}{5000}$$

∴ Traveling to Maldives > Traveling to Thailand will give the most utilities.

Combination possible within 10,000 ฿

Times

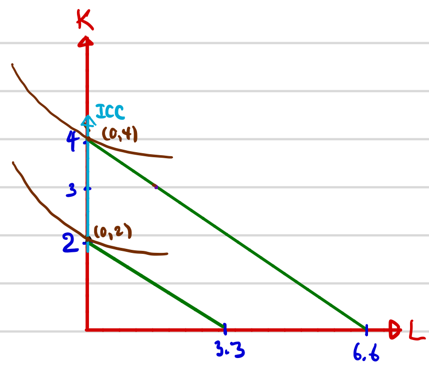
| Maldives | Thailand |
|---|---|
| 0 | 3 |
| 1 | 1 |
| 2 | 0 |

To travel to Maldives > travel to Thailand, he must travel to Maldives $\boxed{2}$ times and travel to Thailand $\boxed{0}$ times. #

## (1.b)

Combination possible within 20,000 ฿

| Maldives | Thailand |
|---|---|
| 0 | 6 |
| 1 | 4 |
| 2 | 3 |
| 3 | 1 |
| 4 | 0 |




Slope of ICC = undefined

if use Maldives in x axis, the ICC slope would be 0 //

## Question 2

(2.a)

$$MTRS = \frac{MP_L}{MP_K}$$

$$= \frac{6}{8} = \frac{3}{4} \#$$

At the equilibrium :

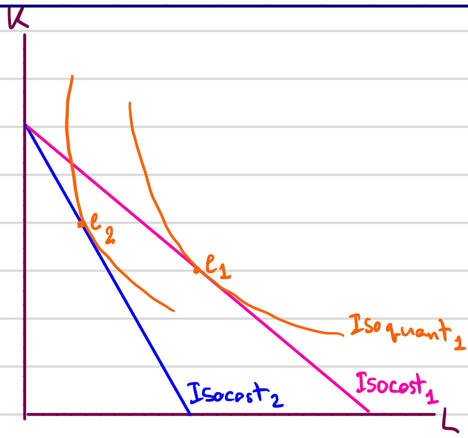
$$\frac{MP_L}{MP_K} = \frac{w}{r}$$

$$\frac{3}{4} = \frac{3}{r}$$

$$r = 4$$

$\therefore$ Interest rate = \$4 #

(2.b)




Firm will hire less labour since it's more expensive

Instead, Firm will be buy more capital because K has become cheaper.

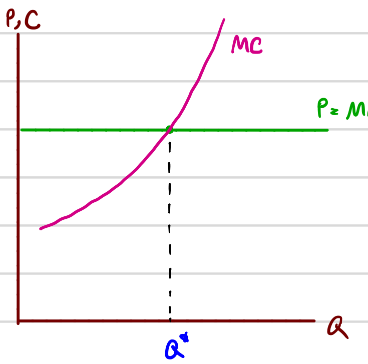
## Question 3

(3. a) Profit maximising condition → MC = MR

At equilibrium P = 150 ฿

At perfect competition P = MR

The marginal cost is 150 ฿




(3.b) $Q = 20$ $P = 150$

$AC = 180$

$AFC = 60$

$AVC = AC - AFC$

$= 180 - 60$

$= 120$ ฿

$TR = P \cdot Q$

$= 20 \cdot 150$

$= 3{,}000$ ฿

$TC = AC \cdot Q$

$= 180 \cdot 20$

$= 3600$ ฿

$\pi = (P - AC) Q$

$= (150 - 180) 20$

$= -600$ ฿

(3.c) Yes, it should. Because at $P = 150$ and $AVC = 120$, after the firm pay the wage, they would still have $150 - 120 = 30$ ฿ left to pay for the interests.

$TFC = 60 \cdot 20 = 1200$

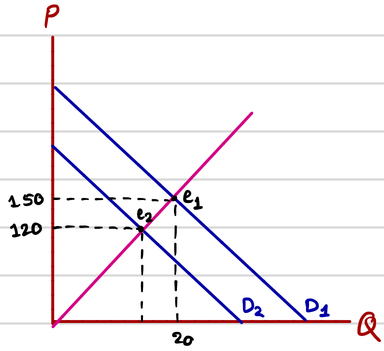
$TVC = 120 \cdot 20 = 2400$

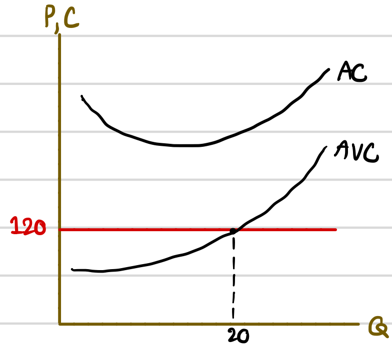
$TR = 3000$

If firm stops the production, they'll lost 1,200 ฿

So, continuing production will minimize their loss.

(3.d) (i)




The answer C would change, it will depend on firm instead.

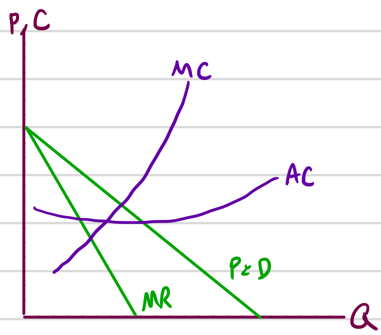
## Question 4

(4.a) MR = derivative of TR

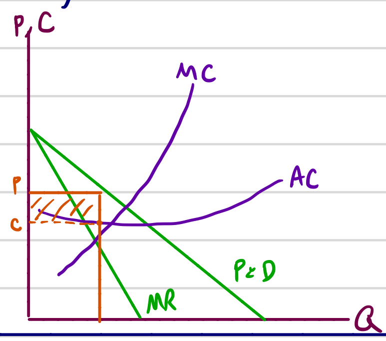
$TR = P \cdot Q$

$= Q(60 - 0.6Q) = 60Q - 0.6Q^2$

$\frac{dTR}{dQ} = 60 - 1.2Q = MR$




(4.b)

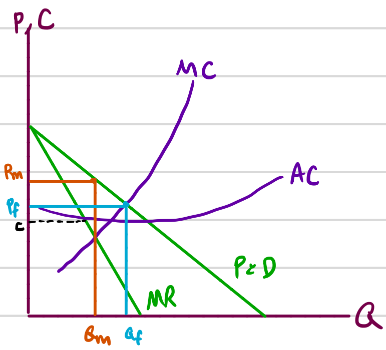



Profit is maximised when MR=MC, because when MR>MC, producing one more unit will yield more money that what it cost produce.

But when MR<MC, each Q would be making a loss

The area highlighted in orange is profit.

(4.c) Ideal Price → P=MC



# Question 5

| | | Mix (Regular) | |
|---|---|---|---|
| | Boba tea (B) | Ice-cream (C) | Donut (D) |
| Mook (Bold) Boba tea (B) | 1, 2 | 3, 5 | 2, 1 |
| Ice-cream (C) | 0, 4 | 2, 1 | 3, 0 |
| Donut (D) | -1, 1 | 4, 3 | 0, 2 |

Nash Equilibrium At Mook-D Mix-C (4,3)

Because if Mook choose the point for her best payoff = 4, then mix options would be 1, 3, 2 and Mix would choose 3, which is the same point for Mook.

Because of Mook choice, Mix doesn't want to change anything → Nash Equilibrium