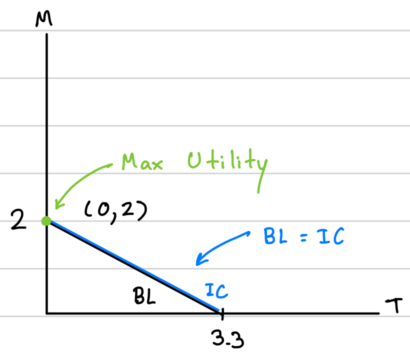
Metasith Pajareya 6304640623

1.a)



M = No. of times to Maldives
T = No. of times to Thailand

$\boxed{\text{Maldieves \& TH are perfectly substitutable goods}}$

Combination possible within 10,000 baht budget

Maldieves	TH
0	3
1	1
2	0

How many of each

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

$$\frac{MU_T}{3000} = \frac{MU_M}{5000}$$

MU_M is twice as much as MU_T

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

Must travel to Maldieves more than TH

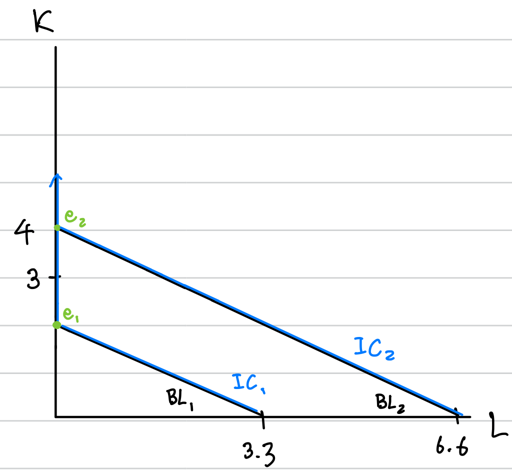
2 Maldieves is the only option that Neo can travel to Maldieves more than TH.

Ans: Travel to Maldieves 2 times
to Thailand 0 times

1b) At budget = 20000 baht, Neo options are:

Maldieves	Thailand
0	6
1	5
2	3
3	1
4	0

There are now 2 options that No. of time to Maldieves > TH → M = 4, T = 0 is the only option that utilised budget = 20,000, and also yields more utility.



Slope of ICC = undefined

if use Maldieves in X axis, the ICC Slope would be 0

2a) Marginal Rate of technical Substitution

$$= \frac{MP_L}{MP_K} = \frac{6}{8} = \frac{3}{4}$$ Ans

At the equilibrium ⟶ Slope of isoquant = slope of isoquant

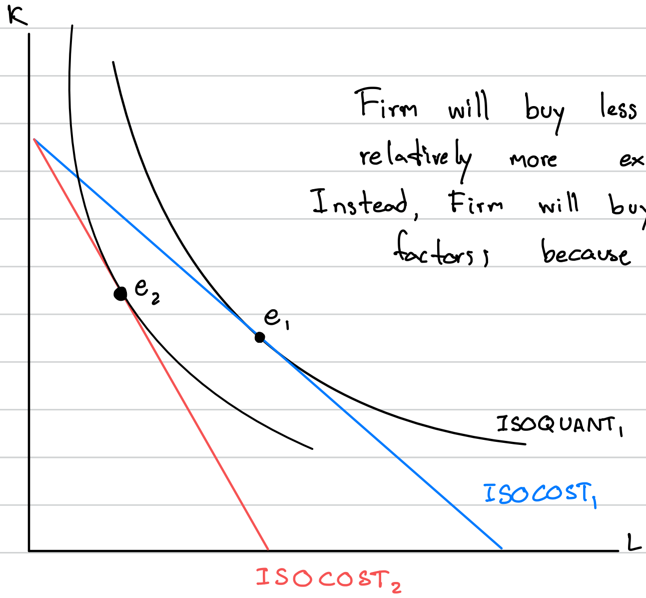
$$\frac{MP_L}{MP_K} = \frac{w}{r}$$

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

$$r = 4$$

Ans: r = $4

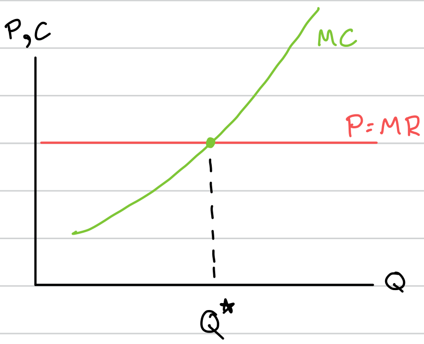
2b)



Firm will buy less labour because it has become relatively more expensive.
Instead, Firm will buy more capital (K, L are substitutable factors) because K has become relatively cheaper.

3a) Profit maximising condition ⟶ MC = MR

in this case, at equilibrium P = 150 baht,
at for perfect competition P = MR
meaning that the Marginal Cost is 150 baht



3b) Q = 20 P = 150
AC = 180
AFC = 60

AVC = AC − AFC
= 180 − 60
= 120 baht

TR = P · Q
= 20 · 150
= 3,000 baht

TC = AC · Q
= 180 · 20
= 3600 baht

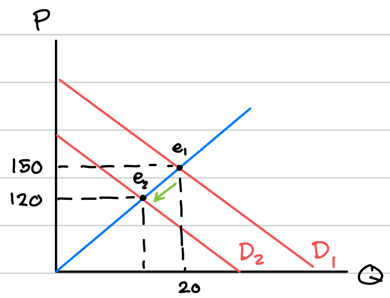
π = (P − AC)Q
= (150 − 180) 20
= −600 baht

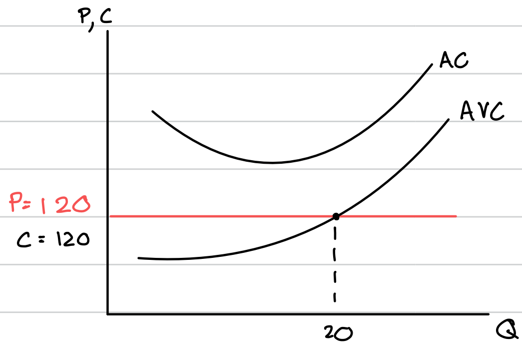
3c) Yes, they should. Because at P= 150 and AVC = 120, after the firm pay the wage, they would still have 150 - 120 = 30 baht left to pay for the interests.

TFC = 60 · 20 = 1200
TVC = 120 · 20 = 2400
TR = 3000

If firm decided to stop the production, they would lose 1,200 baht from the fixed cost, but if they keep producing at Q = 20, then they can use TR recieved to pay for TVC at 2400 baht, and have 600 baht left-over to pay for the TFC.
Instead of losing 1,200 baht, they would be losing only 600 baht.

3d) (i) Change in equilibrium price and the quantity of the market (ii) firm equilibrium quantity and profit



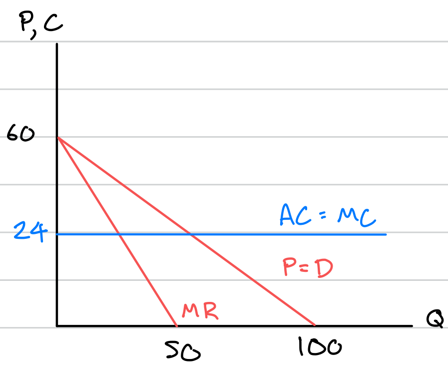


The answer from C would change from keep producing to "It's up to the firm" because if they stop producing (Q=0) they will have to pay full TFC. If they keep producing, TR would cancel out TVC altogether and the firm has to pay full TFC.

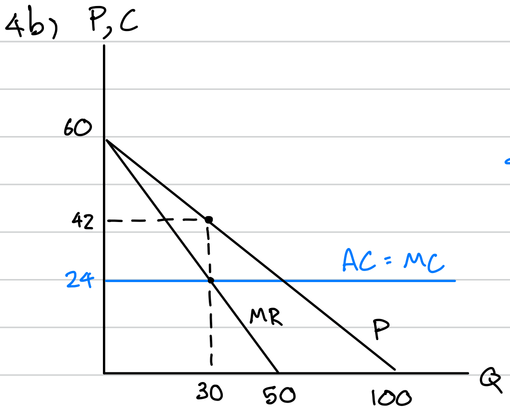
4a) MR = derivative of TR

TR = P · Q
= Q(60 - 0.6Q) = 60Q - 0.6Q²

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



4b)



Profit is maximised when MR = MC , because when MR > MC, producing one more unit will yield more money than what it cost to produce. But when MR < MC , each Q would be making a loss.

The area highlighted in blue is profit.

$\pi = TR - TC = 42(30) - 24(30) = \underline{\underline{540}}$

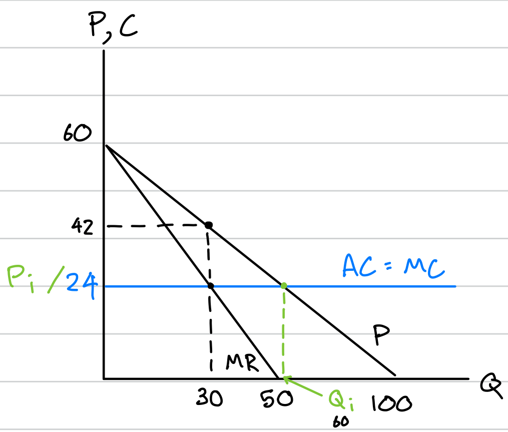
$MR = MC$

$24 = 60 - 1.2x$

$x = 30 = Q$

optimal no. of house $= \underline{\underline{30}}$

4C) Ideal Price $\rightarrow$ P = MC



In this case, AC = MC and it is a straight line, and ideal prices stated that MC = P . Meaning P = AC and the H & L makes $\pi = 0$. But consumer can buy more goods at the same price.

$P = 60 - 0.6Q$

$24 = 60 - 0.6Q$

$Q = 60$

for forced price = 24

then $\underline{\underline{Q = 60}}$

Ideal price is designed to lower the price of goods in a monopoly market. In the example that I illustrated, The excess profit is reduced from the blue area to green area only. But in some cases, if the point P = MC is lower than AC, the firm will make a loss and likely to leave the market, leaving the consumer with no product.

5.

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

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

Because if Mook choose this 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.

After seeing Mook choice, Mix doesn't want to change anything

= Nash Equilibrium