Assignment

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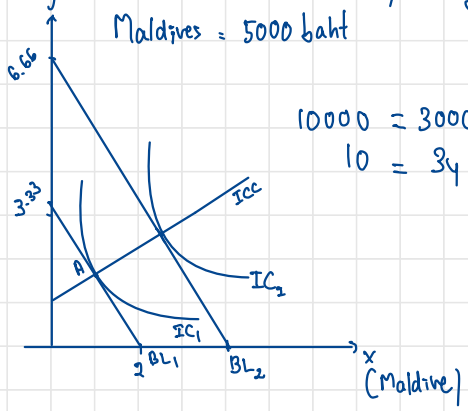
1. a). Thailand = 3000 baht ; Budget 10,000 baht
Maldives = 5000 baht



$10000 = 3000y + 5000x$

$10 = 3y + 5x$ ①

if $y = 0 \Rightarrow 10 = 5x \Rightarrow x = 2$

if $x = 0 \Rightarrow 10 = 3y \Rightarrow y = 3.33$

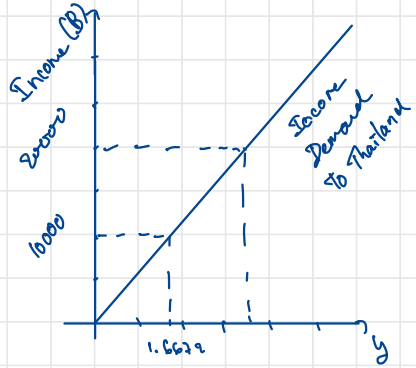
To maximize his utility : MRS = MRMS

$$\frac{MU_x}{MU_y} = \frac{P_x}{P_y}$$

$$\frac{\Delta y}{\Delta x} = \frac{P_x}{P_y} \Rightarrow \frac{3.33}{2} = \frac{5000}{3000} = 1.666$$

Thus, He will choose to go to maldives 1 time & thailand 1.667 times

b. Budget : 20000 baht : 6.66 trips to Thailand = 4 trips to the Maldives.



The graph has a positive slope, thus the product is normal good

2. a).

$$MRTS_L^K = \frac{MP_L}{MP_K} = \frac{6}{8} = 0.75$$

the cost-minimization condition of this firm: $\frac{MP_L}{w} = \frac{MP_K}{r}$

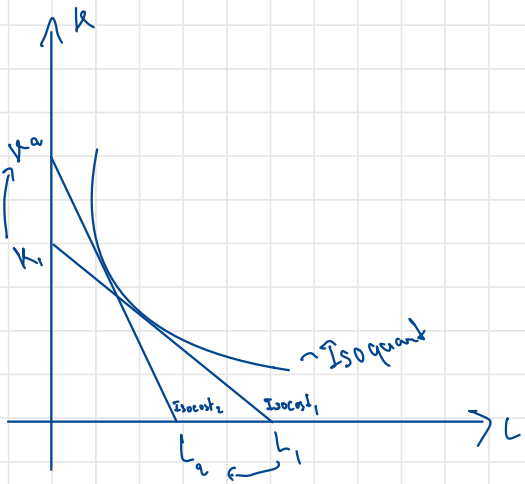
$$\frac{MP_L}{MP_K} = \frac{w}{r}$$

$$0.75 = \frac{3}{r} \Rightarrow r = 4\$$$

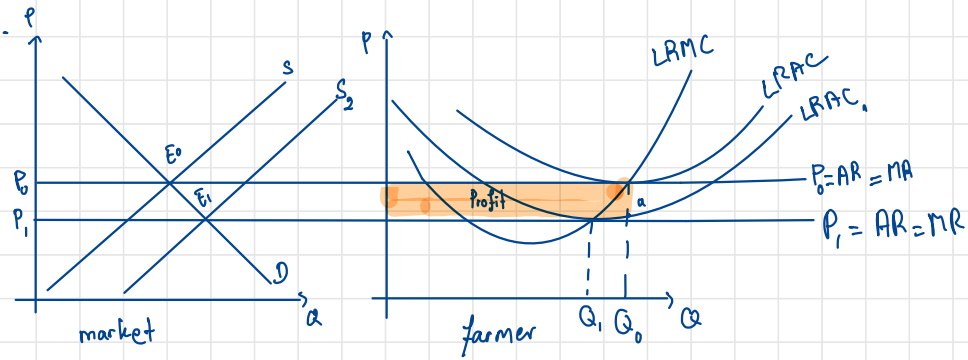
Thus, $\boxed{r = \$4}$

b.

When wage increase to \$4, firm will hire less labor and get more capital, so there will be new Isocost with new point.



3. a.



After lump sum subsidy, LRAC will shift down. LRMC doesn't change because it's lump sum subsidy, it doesn't effect how much they produce. No matter how much they produce, they still get the same subsidy.

b. the lump sum subsidy will not change the quantity the farmer wants to produce to maximize his profit.

After the lump sum subsidy, farmer still produce at Q_0 and sell at P_0, which get excess profit.

c. when each firm in the market gain excess profit, this will attract new firm to come and with free entry, new firm will join the market (perfectly competitive) As a result, supply curve will shift to the right driving the market price down to P_1. New firm keep coming until each firm in the market get normal economic profit ($\pi^{EC} = 0$). Thus, we will get new equilibrium at $E_1(P_1; Q_1)$

4. a. with demand $P = 100 - 5Q$; $MR = 100 - 10Q$ $(MR = MC)$

$20 = 100 - 10Q$

$\Rightarrow Q = 8$

with $Q = 8 \Rightarrow P = 100 - 5(8) = 60\$$

So, $\boxed{Q = 8 \; ; \; P = \$60}$

b. Since MC is constant, $MC = AC$

$TC = AC \times Q = 20 \times 8 = 160$

$TVC = TC - TF \Rightarrow TVC = 160 - 100 = \$60$

So, $\boxed{TVC = \$160}$

c. $Profit = TR - TC$

* $TR = 60 \times 8 = 480\$$

* $MC = \frac{dTC}{dQ} \Rightarrow dTC = MC\,dQ$

$\Rightarrow TC = 20Q + c$ ← fixed cost

$= 20(8) + 160 = 320$

$\Rightarrow Profit = 480 - 320 = 160$

Thus, $\boxed{Profit = \$160}$

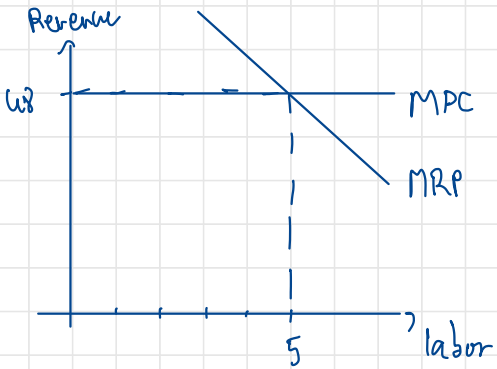
5. To maximize firm profit MFC = MRP

$MFC = W = \$48$

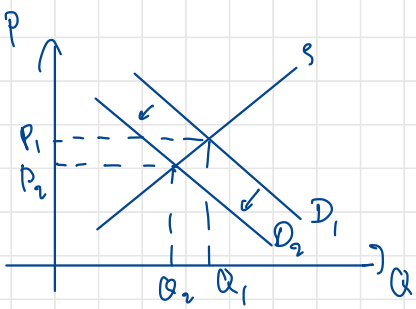
$MRP = MR \times MP = P_x MP$

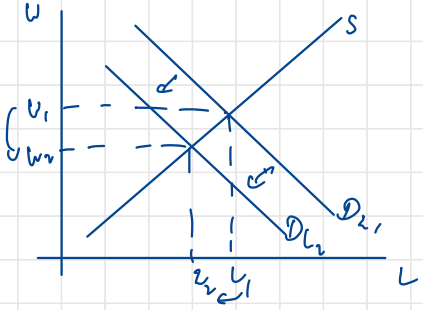
$48 = 12 \times MP \Rightarrow MP = \frac{48}{12} = 4$

So firm will choose MP=4 that has 5 units



b. When there is a sudden economic recession driving consumer's purchasing power downward, the units of labor hired by this firm will decrease because there will be less demand in product market due to customer's purchasing power downward.





6. a. "People feel that price level is hiking". is 1. not a market failure because price is untouchable.

b. "Morpheus always hear loud fight coming from a next to his" is 4 public goods because people all share the same environment in given area. Therefore, Morpheus cannot deplete the availability of the other making noise.

c. is 5. Moral hazard because this technique is used by employers to ensure that their employees'll not have any behavior change after signing work contract

d. is 6. Adverse selection because there is nothing to access the risk, so the results may turn out differently from the expectation.

e is 2. Market power because Starbucks surely has some market power to enable them to change consumer higher than Amazon.