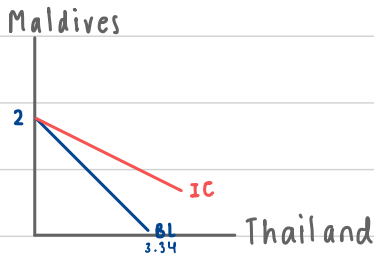
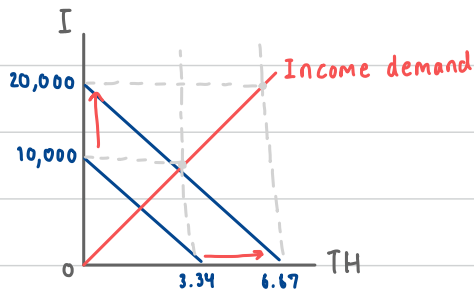
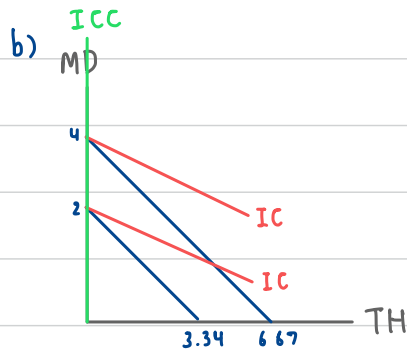


1. a)



- The graph shows the times of each destination he will travel and budget line which he will only go to Maldives 2 times
- Since $\frac{MU_x}{MU_y} < \frac{P_x}{P_y}$, Neo should go to Maldives rather than Thailand to increase utility.



$$y = 3000x$$

- since the budget increase, the times he can spend travel in Thailand will be increase
- When $I \uparrow 10,000$ B, the $Q \uparrow 3.33$ times

2. a)

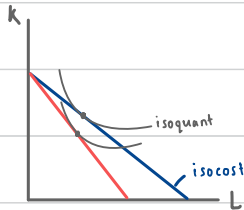
$$MP_L = 6 \quad MP_K = 8 \quad W = 3$$

$$MRTS_{LK} = - \frac{MP_L}{MP_K} = - \frac{6}{8} = -0.75$$

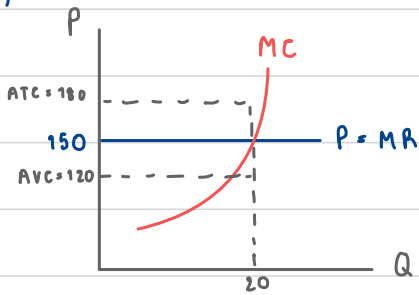
$$\frac{MP_L}{MP_K} = \frac{W}{r} \quad \frac{6}{8} = \frac{3}{r} \quad r = 4$$

b) $W \uparrow = 4$

$$K = \frac{TC}{4}$$



3. a)



b) $ATC = 180 \quad AFC = 60$

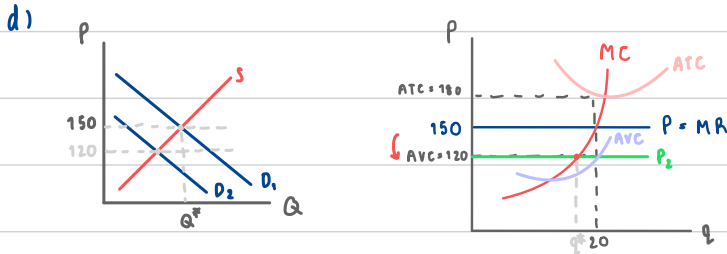
$$AVC = ATC - AFC = 120$$

$$TC = ATC \cdot q = 3600$$

$$TR = P \cdot Q = 3000$$

$$\pi = TR - TC = -600$$

- c) Yes, the firm can stay in the short run market because $P > AVC$
 so the total revenue can cover all of the fixed cost and total cost

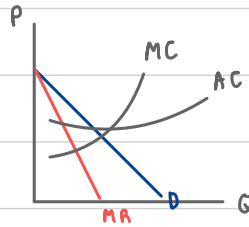


- $P \downarrow$ from $150 \rightarrow 120$ $q \downarrow$ from $20 \rightarrow q^*$
- P also $> AVC$ so the firm remains in the business

4. a)

$$\begin{aligned} TR &= P \times Q \\ &= (60 - 0.6Q) Q \\ &= 60Q - 0.6Q^2 \end{aligned}$$

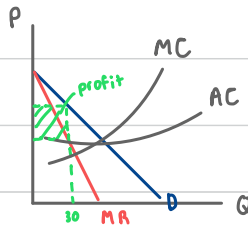
$$\frac{dTR}{dQ} = 60 - 1.2Q = MR$$



b) $MC = MR$

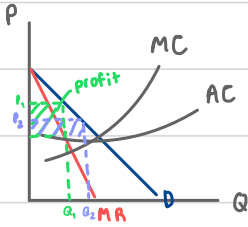
$$24 = 60 - 1.2Q$$

$$Q = 30$$



- It will gain the profit maximized when $MR = MC$

c)



- The government use the ideal price to lower the price of the house which make they lossed a profit, but the consumer can access the price which make $Q \uparrow$ so they only lossed few profit.

5.

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

Nash equilibrium is at Mook (D), Mix (C)

because D is the best choice for Mook and compare to B, C, D
at C is the best choice for Mix