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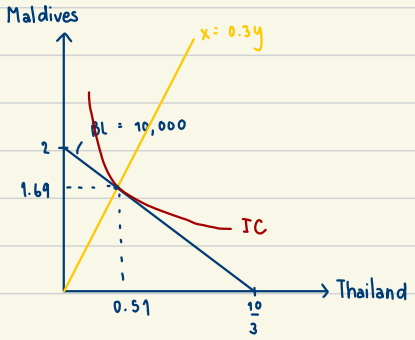
1. a)



Budget = 10 000

Thailand = x P_x = 3,000

Maldives = y P_y = 5,000

Slope of Budget line = $\frac{P_x}{P_y} = \frac{3000}{5000} = \frac{3}{5}$

Budget : $P_x \cdot x + P_y \cdot y$

$10000 = 3,000x + 5000y$

Slope of IC : $MU_x = MU_y$ $\therefore = \frac{2x}{y}$

$2x = y$

Maximize utility : $\frac{MUx}{P_x} = \frac{MUy}{P_y}$

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

$\frac{2x}{y} = \frac{3}{5}$

$x = 0.3y$

Budget : $10,000 = 3000(0.3y) + 5000y$

$10,000 = 900y + 5000y$

$10,000 = 5900y$

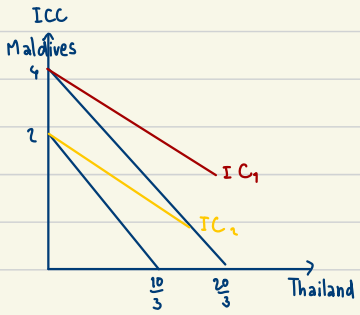
$y = \frac{100}{59} = 1.69$

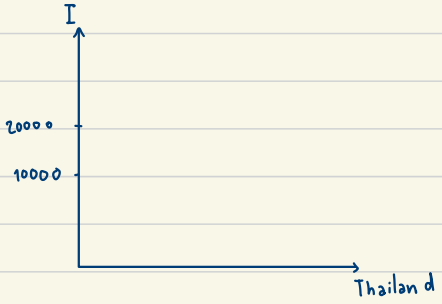
$X = \frac{30}{59} = 0.51$

∴ Neo will choose to go to Maldives 2 times and go to Thailand 0 time because he will get higher utility from travelling to Maldives than to Thailand

1. b) If budget = 20,000

Income Demand (Thailand) = undefined (slope = $-\infty$)





2. a) MRTS : $\frac{-MP_L}{MP_K} = \frac{-6}{8} = -0.75$

Minimum cost : $\frac{MP_L}{MP_K} = \frac{w}{r}$

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

$\frac{6}{3} = \frac{8}{r}$

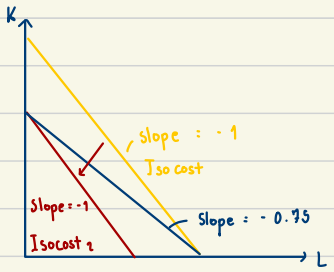
$\therefore r = 4$

2. b) $w = 4 \quad r = 4$

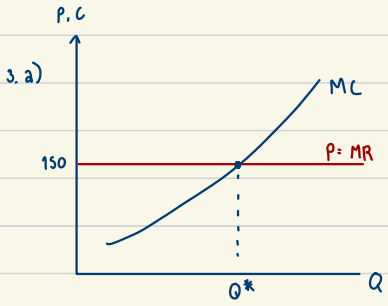
Isocost slope = -1

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

$L = 0$



3. a)



Maximize profit : MC = MR

Price is 150 at the equilibrium and P= MR because perfect competition.

Therefore, the marginal cost is 150 baht.

3.b) $P = 150 \quad Q = 20 \quad AC = 180 \quad AFC = 60$

Average variable cost = AC - AFC = 180 - 60 = 120 baht//

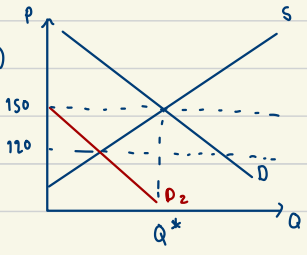
Total Revenue = PQ = 150 · 20 = 3000 baht//

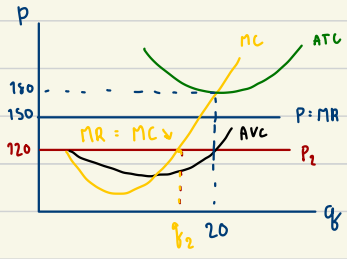
Total cost = AC · Q = 180 · 20 = 3600 baht//

Profit = (P - AC) Q = (150 - 180) 20 = -600 baht//

3. c) The firm should stay in the market in the short run. This is because the total revenue can cover some fixed cost and all variable cost as P > AVC. Therefore, the firm will loss only some of the fixed cost.

3. d)





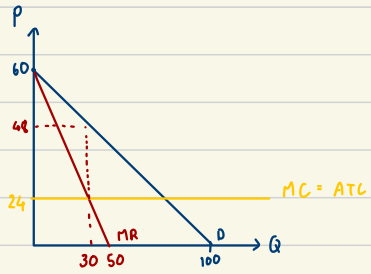
→ D and P decrease from 150 to 120

→ $MR_2 = 120 = MC$ → q_f decrease from 20 to q_2

→ P = 120 > min AVC

Therefore, firm operates //

4. a)



$TR = P \cdot Q$

$TR = (60 - 0.6Q)Q$

$TR = 60Q - 0.6Q^2$

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

4 b) $MC = MR$

$24 = 60 - 1.2Q$

$1.2Q = 36$

$Q = 30$

$\therefore P = 60 - 0.6(30)$

$P = 42$

$\pi = TR - TC$

$\pi = P \cdot Q - ATC \cdot Q$

$\pi = (P - ATC)\,Q$

$\pi = (42 - 24)\,30$

$\pi = 720$

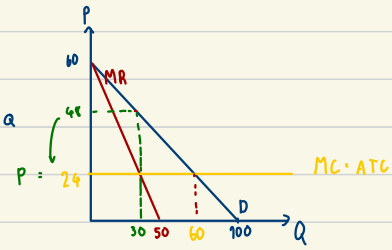
4. c) Ideal Price : $P = MC$

if $P = 24$

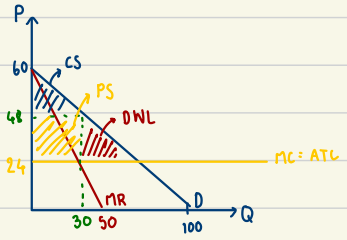
then, $24 = 60 - 1.2Q$

$0.6Q = 36$

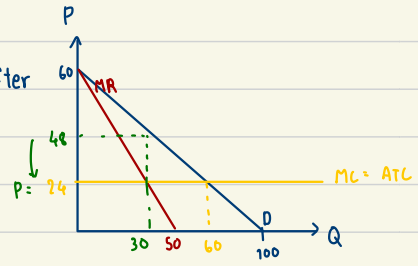
$Q = 60$



Before



After



5.

Question (5) Consider this payoff matrix for Mook and Mix, they are competitors in an oligopoly sweetened product. Mook's payoff (bold) and Mix's payoff (regular) in this table is in thousand(s) baht unit. Discuss how you figure out a Nash equilibrium in this game.

		Mix		
		Boba tea (B)	Ice-cream (C)	Donut (D)
Mook	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

If Mix choose B Mook will choose B ∴ Nash equilibrium = [D, C]

" " C " " D ✓

" " D " " C

If Mook choose B Mix will choose C

" " C " " B

" " D " " C ✓