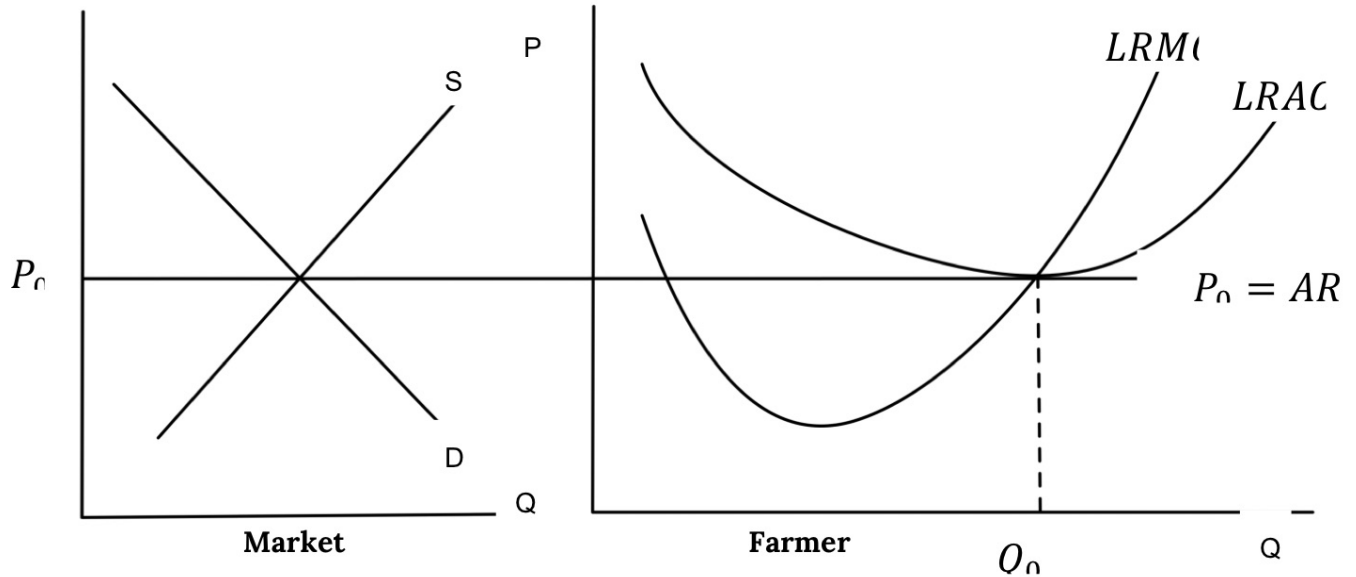


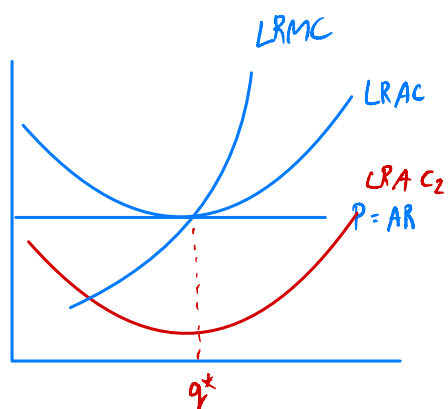
4. A Thai rice farmer is in a long run equilibrium in a perfect competition and produces at the quantity Q_0 as shown in the graph below.



4.a) The government grants a lump sum subsidy to every farmer. How will this change the LRAC? Explain why LRMC does not change.

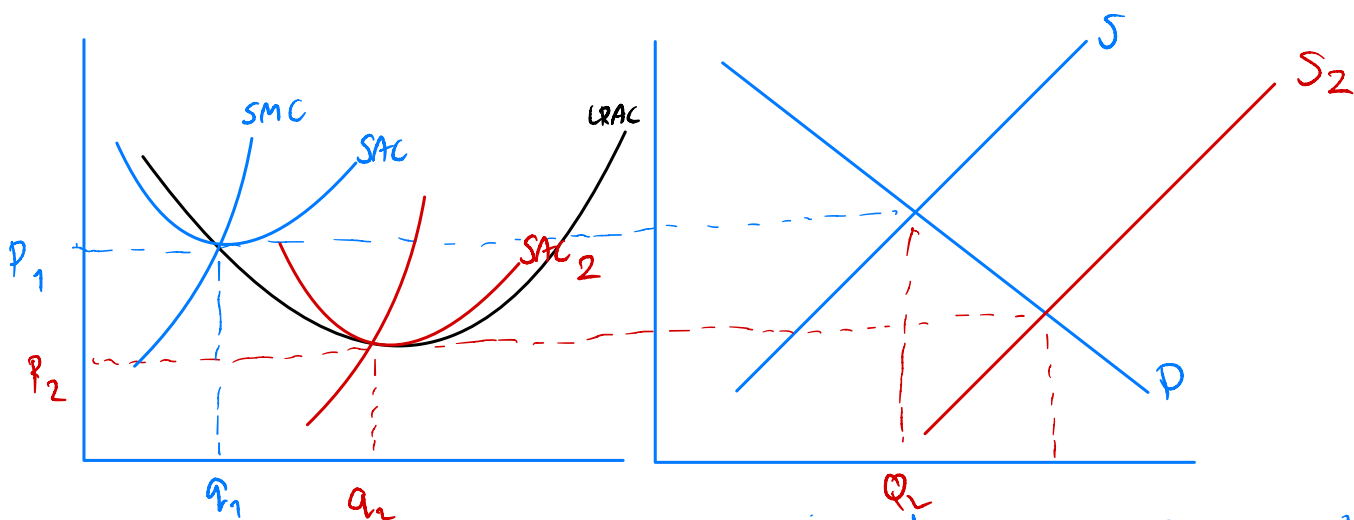
If government use lump sum subsidy to every farmer it will lower the fixed cost and LRMC will not change because the curve only tell how much we need to produce

4.b) (10 Points) Will the lump sum subsidy change the quantity the farmer wants to produce to maximize his profit? Show in the graph that the farmer now earns an Excess Profit. Explain.



lump sum subsidy will not change the q of the farmer want to produce to maximize profit. Now farmers earn an excess profit because subsidy make a drop in long run mean that cost is lower price and q stay the same

4.c) (10 Points) Demonstrate how this Excess Profit will affect the market price in the Long Run that allows new entry to the market.



In long run = firm join market = S shift right then we will have new equilibrium price that is lower

Assignment 2

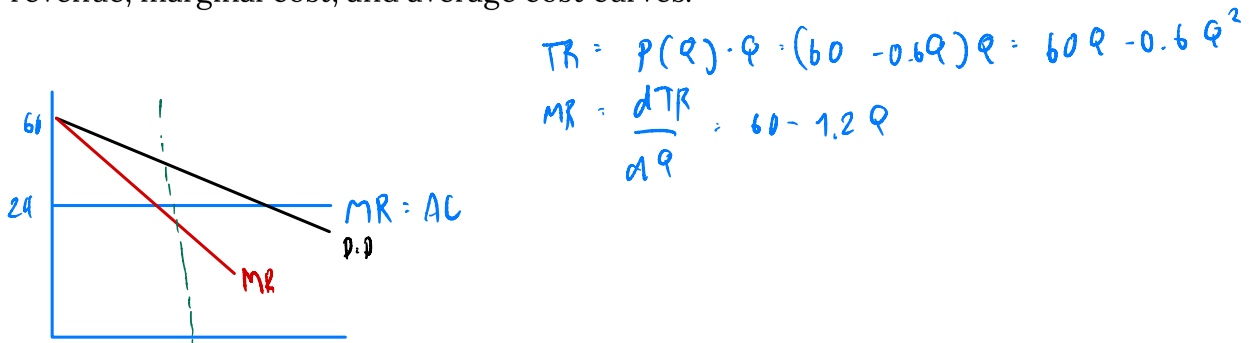
Assigned on Apr 9th, 2022. To be submitted on Apr 23th, 2022 before midnight

5. House and Land (HL) is the monopolist in a luxury housing market. It is a very efficient firm in which workers can construct houses with constant marginal cost and average cost. The demand and cost functions for HL are given as follows. (P is in million-baht unit).

$$P = 60 - 0.6Q$$

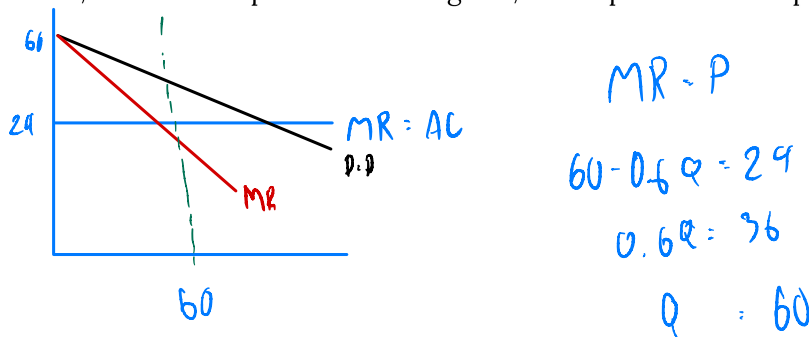
$$MC = AC = 24$$

5.a) Derive the marginal revenue function. Draw a diagram to illustrate the demand, marginal revenue, marginal cost, and average cost curves.



5.b) State the profit-maximizing condition for HL, and determine the optimal units of houses.

Also, indicate the profit in the diagram, and explain how this profit can be derived.



$$TR = AR \times Q = 24 \times 60 = 1,440$$

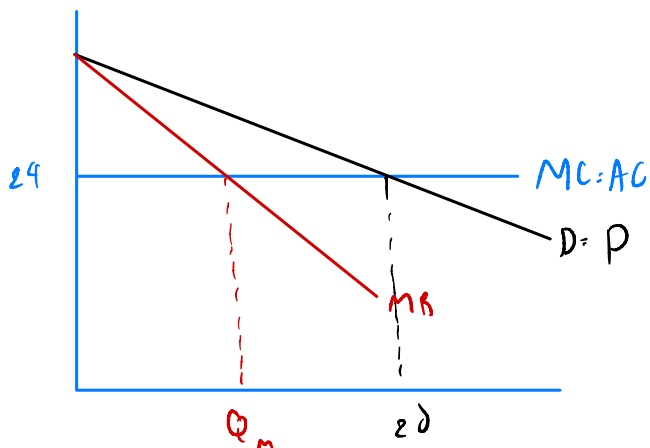
$$TL = AC \times Q = 24 \times 60 = 1,440$$

$$AR = P = 60 - 0.6(60) = 24$$

Assignment 2

Assigned on Apr 9th, 2022. To be submitted on Apr 23th, 2022 before midnight

5.c) The government tries to encourage more people to have access to luxury houses, so they launch a policy forcing HL to sell their houses at the ideal price. Draw another diagram to indicate the ideal price and determine the corresponding quantity at this price. Illustrate the social welfare before and after the intervention in the diagram and discuss.



$$\text{ideal price} = P = MC$$

$$60 - 0.6Q = 24$$

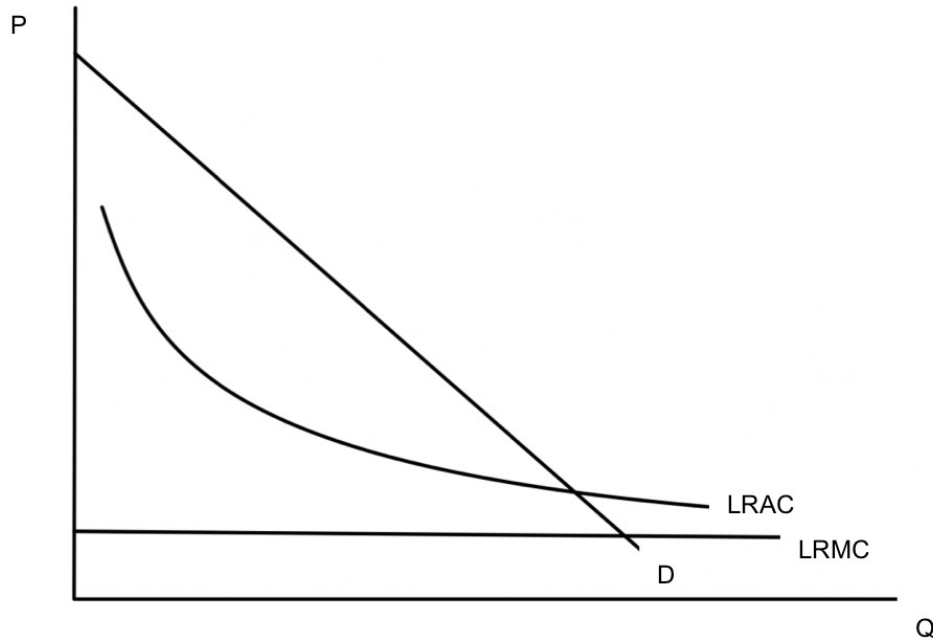
$$Q = 20$$

\therefore ideal price after intervention = price before intervention

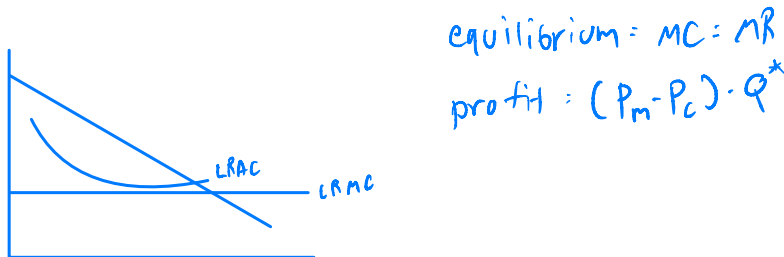
Assignment 2

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6. The producer of the upcoming vaccine for COVID-19 is a monopoly who wants to price their vaccine to maximize profit. The cost of producing the vaccine is mostly fixed cost involving the research so that the Long Run Average Cost (LRAC) keeps declining the more vaccine is produced. The Long Run Marginal Cost (LRMC) is a small constant cost at all production level.



6.a) If the demand of vaccine is downward sloping as usual, show the equilibrium price and quantity that will maximize the profit. State the equilibrium conditions. Identify the profit and the deadweight loss to the society.



6.b) Assumed that monopoly price is \$50 per dose, marginal cost \$10, calculate the Lerner's index of monopoly power.

$$\text{Lerner's index} = \frac{P - MC}{P} = \frac{50 - 10}{50} = \frac{40}{50} = \frac{4}{5}$$

Assignment 2

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6.c) Determine the Ideal Price? Will the monopoly earn any profit at this Ideal Price?

Explain.

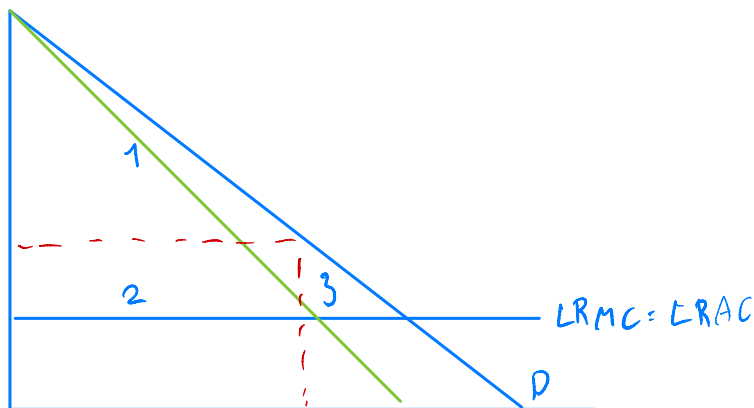
$$\text{ideal price} \rightarrow p = MC$$

$$50 \neq 10$$

monopoly will not earn profit at this ideal price level because $p \neq MC$

6.d) Determine the Fair Price? Is there still deadweight loss at this Fair Price? Explain.

$$\text{fair price} = p = AC$$



Consumer surplus = 1

seller profit = ?

dwl = 3