

1. **(10 points)** Imagine a society that produces military goods and consumer goods, which we will call “tanks” and “rice.”
 - a. (4 points) Draw a production possibilities frontier for tanks and rice. Using the concept of opportunity cost, explain why it most likely has a bowed-out shape (i.e., concave to the origin).
 - b. (1 points) Show a point that is impossible for the economy to achieve. Show a point that is feasible but inefficient.
 - c. (1 points) Imagine that the society has two political parties, called the Hawks (who want a strong military) and the Doves (who want a smaller military). Show a point on your production possibilities frontier that the Hawks might choose and a point the Doves might choose.
 - d. (4 points) Imagine that an aggressive neighboring country reduces the size of its military. As a result, both the Hawks and the Doves reduce their desired production of guns by the same amount. Which party would get the bigger “peace dividend,” measured by the increase in rice production? Explain.

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2. (20 points) Consider a liquor market in a country, answer the following questions. If you have any specific assumption, please state them clearly within each item.

2.1) (5 points) Supposed that a Health Foundation which is an independent organization decides to put up a campaign showing how bad can alcoholic beverages can affect health condition in long-term through several big billboards, what do you think will happen to this market, equilibrium price and quantity. Support your claim with economic reasoning.

2.2) (5 points) If the government decides to collect unit tax on sellers, show that how would this affects equilibrium price and quantity. Provide a clear explanation with support of a diagram.

2.3) (10 points) There are two groups of liquor consumers: the alcoholic and the occasional drinkers. Does the unit tax affect both groups the same or differently. Provide a clear explanation with support of diagrams.

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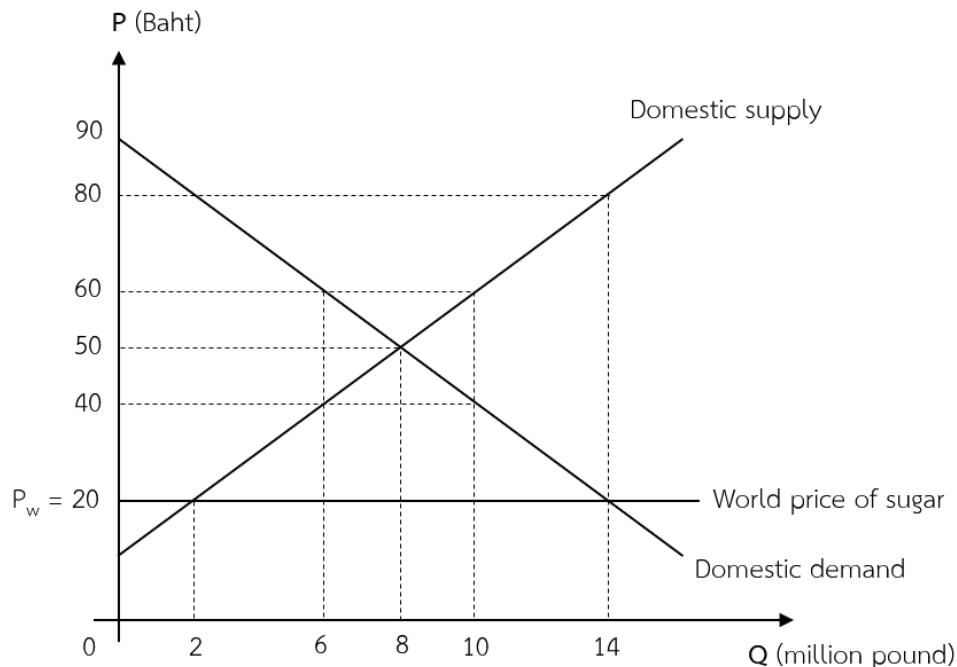
3. **(15 points)** Few years ago, the MRT Purple Line electrical train opened to the public but with unexpected low ridership, the operator of MRT decided to lower the fare from 42 to 29 baht per trip. As a result, the number of passengers increased from 20,000 to 21,000 commuters.

3.1) (5 points) What is the price elasticity of demand for MRT Purple Line? Show your work.

3. (10 points) If the MRT operator decides to reduce the fare even further from 29 to 15 baht per trip. Do you think this price-reduction strategy will help increasing total revenue of MRT Purple Line? Give a clear explanation with support of a diagram.

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4. (15 Points) Supposed that sugar is traded freely in the world market, Thai people consume domestically produced sugar while the rest is imported. Given that world market price is 20 baht per pound and **the government decides to set domestic ceiling price** equally to the world price, below graph shows domestic demand, supply and world price level.



Answer the following questions.

4.1) (2 points) Supposed that Thailand takes world price, how many pounds of sugar is imported at the world price level?

4.2) If the government further decides to collect an import unit tax of 20 baht per pound and the price after tax becomes 40 baht per pound,

a) (3 points) How much of the sugar is domestically produced in Thailand after tax?

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b) (5 points) After the import tax is imposed, compute the change in consumer surplus. Also highlight the change in consumer surplus in the provided graph. Are the domestic consumers better off or worse off? Clearly explain your answer.

c) (5 points) Compute the government revenue from the import tax and also identify its area in the provided graph. Clearly explain why the area identified above represents the government revenue from the import tax.