

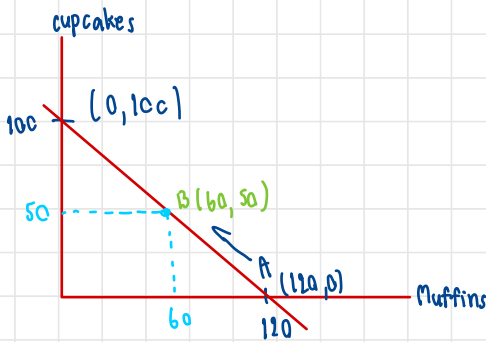
1. Suppose that a baker can produce muffins and cupcakes. If she uses all her resources on producing muffins, she can bake 120 muffins. If she produces only cupcakes, she can bake 100 cupcakes.

(a) Draw the Production Possibility Curve of this baker, where the x-axis represents the quantity of muffins and y-axis represents the quantity of cupcakes. Assume that the PPC is a straight line. What is the opportunity cost of each cupcake?

(b) With her available resources, can this baker make 60 cupcakes and 50 muffins? Justify your answer.

(X) If the baker learns a new technique and now the maximum quantity of muffins she can produce is 150 muffins, while the maximum quantity of cupcakes she can produce is still 100 cupcakes, *ceteris paribus*. Will the opportunity cost of each cupcake increase or decrease, and by what amount? Illustrate the change of the Production Possibility Curve of this baker.

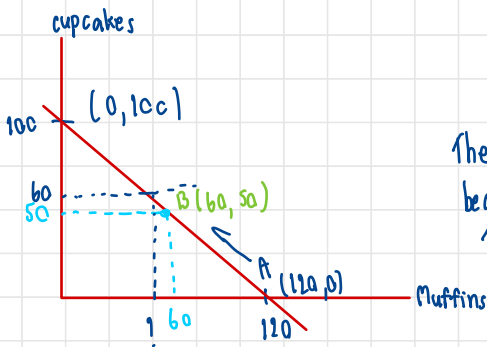
a.



$$A \rightarrow B : \begin{array}{cc} \text{Cupcakes} & \text{Muffins} \\ (120, 0) & (60, 50) \\ & +50 \\ & -60 \\ & +1 \\ & \frac{60}{50} = 1.2 \end{array}$$

The opportunity cost to produce a cupcake is 1.2

b.



$$B \rightarrow \text{the new} : \begin{array}{cc} \text{Cupcakes} & \text{Muffins} \\ (60, 50) & (50, 60) \\ & +10 \\ & -10 \\ & +1 \\ & 1 \end{array}$$

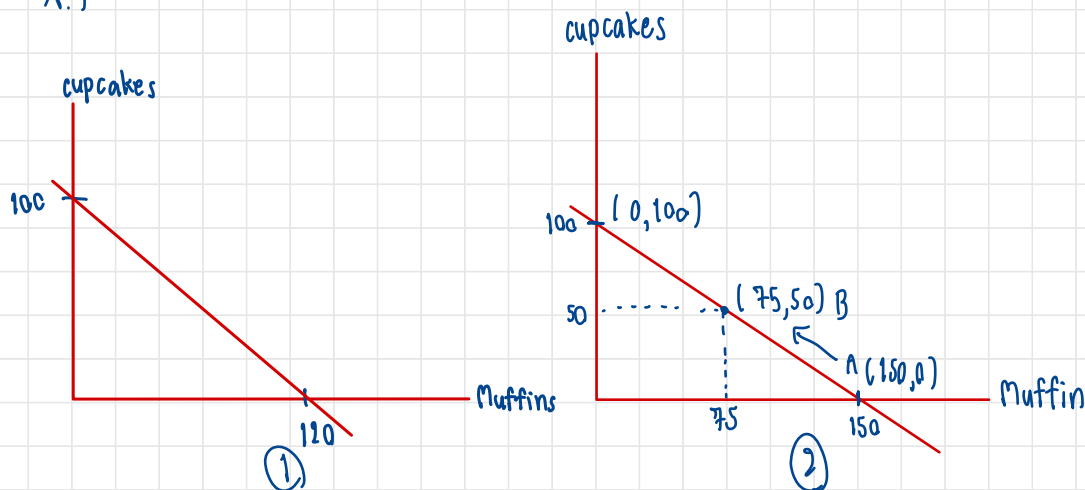
The baker can't produce 60 cupcakes and 50 muffins

because the opportunity cost to produce a cupcake is 1 but

The opportunity to produce each cupcake of this PPC is 1.2.

So that at producing 60 cupcakes the baker will get 48 muffins.

X.)



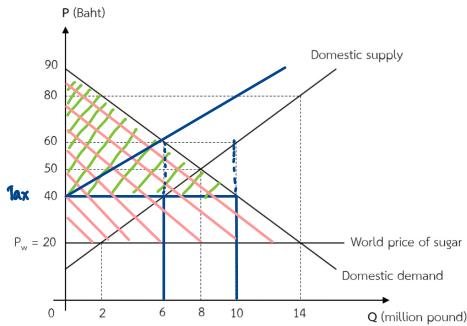
The opportunity cost of each cupcake is increasing from 1.2 to 1.5

From A to B :	Cupcakes	Muffins	} From A to B the opportunity cost to produce a cupcake is 1.5 because the baker can produce more 50 cupcakes but less 75 muffins.
	+50	-75	
	1	-1.5	

② a. 12 million pound. This is because the domestic demand is 14 million pound but the country can supply 2 million pound so they have to import 12 million pound because of excess demand.

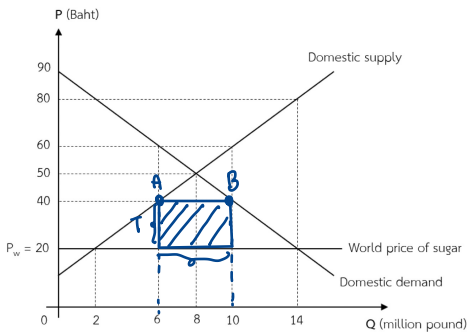
b.c. 6 million pound is domestically produced in Thailand after tax.

b.d.



The domestic consumers worse off. Before the government collects unit tax the consumer will get all the pink area but when the government collects an import unit tax of 20 per pound the price increasing to 40 baht the consumer will get pink and green area but the consumer will lose some pink area. Those make people who have lower 40 baht can't buy the sugar.

c.



Tax that seller have to pay to government.

$$(P_2 - P_1) \times Q_2 = 20 \times 4 = 80 \text{ million}$$

The price increase from 20 to 40 which is a unit tax

The new interception of supply is A and the new interception of demand is B This shows the excess demand is 4 million pound

which has to import from the others. This cause, the consumers have to pay 20 baht per unit tax and they import 4 million pound so they have to pay 80 million baht to the government.

3

a. The price elasticity of demand at the New price.

$$\frac{\Delta Q}{\Delta P} \cdot \frac{P_1}{Q_1} = \frac{3000 - 5000}{25 - 20} \cdot \frac{20}{5000}$$

$$= \frac{-2000 \cdot 20}{5 \cdot 5000} = -1.6$$

b. The total sale revenue for selling sweetend green tea at Thammasat University is decreasing because it is a elastic goods ($|E_d| > 1$) which has others substitution.

OR The quantity of sweeted green tea at Thammasat University before increasing tax is 5,000 bottles per month but when increasing tax 5 baht the quantity is decreasing to 3,000 bottles per month. This cause shows that the sweeted green tea is elastic goods because the quantity of product decreases a lot.

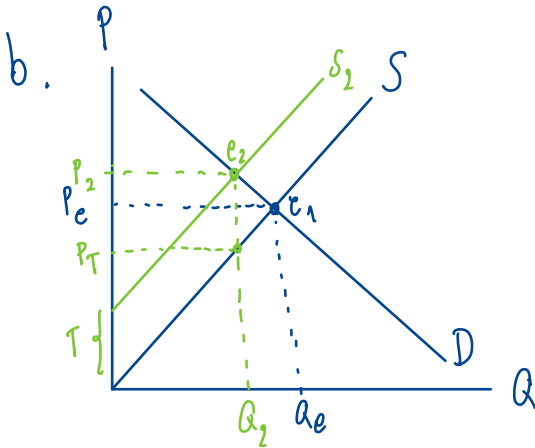
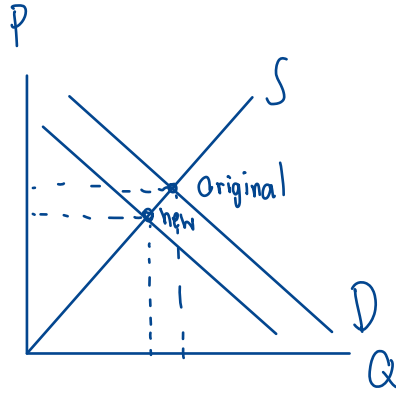
$$c. E_c = \frac{P^b}{Q^a} \cdot \frac{\Delta Q^a}{\Delta P^b} = \frac{20}{2,500} \times \frac{3000 - 2500}{25 - 20} = 0.8$$

d. substitutes goods because it is a elastic goods and when green tea price increase the quantity to sell of Super Drink also increase.

④

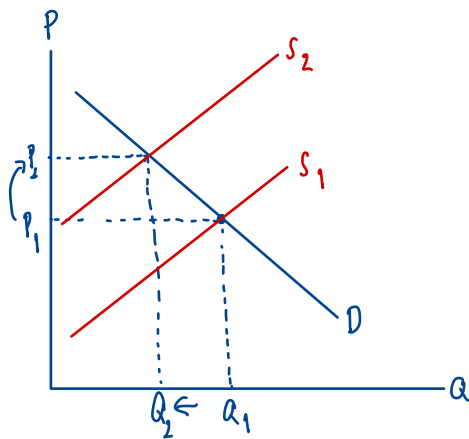
a. I think people will demand less alcohol.

Those cause makes the demand line shift to the left and has new equilibrium price and quantity.

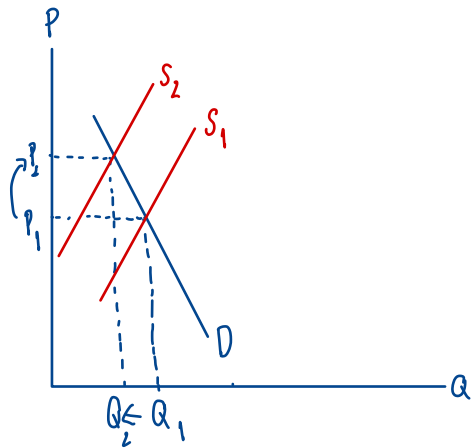


If the government decide to collect unit tax on sellers the equilibrium price and quantity will move to e₂ because the company increase price for their profit. Supply shifts to the right because the cost of production increase due to the tax so the firm will produce less product.

C.



Elastic Demand (the occasional drinkers)



Inelastic Demand (the alcoholic)

From the graph the occasional drinkers more affects on the unit tax increase than the alcoholic because the alcoholic when the price increase ($P_1 \rightarrow P_2$) the quantity of alcohol isn't change a lot ($Q_1 \rightarrow Q_2$). Those cause means the alcohol is inelastic goods for the alcoholic. However, the occasional drinkers if the price rises ($P_1 \rightarrow P_2$) the quantity also decreases too much ($Q_1 \rightarrow Q_2$). This shows that alcohol is elastic goods for the occasional drinkers.

