1

Beaut
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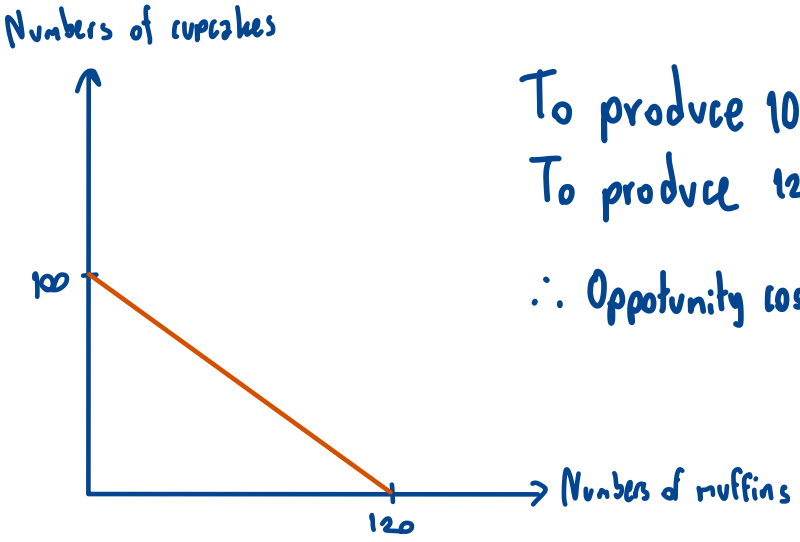
a)



To produce 100 cupcakes, loosing 120 muffins
To produce 120 muffins, loosing 100 cupcakes

$\therefore$ Oppotunity cost of producing 1 cupcake $= \frac{120-0}{100-0}$

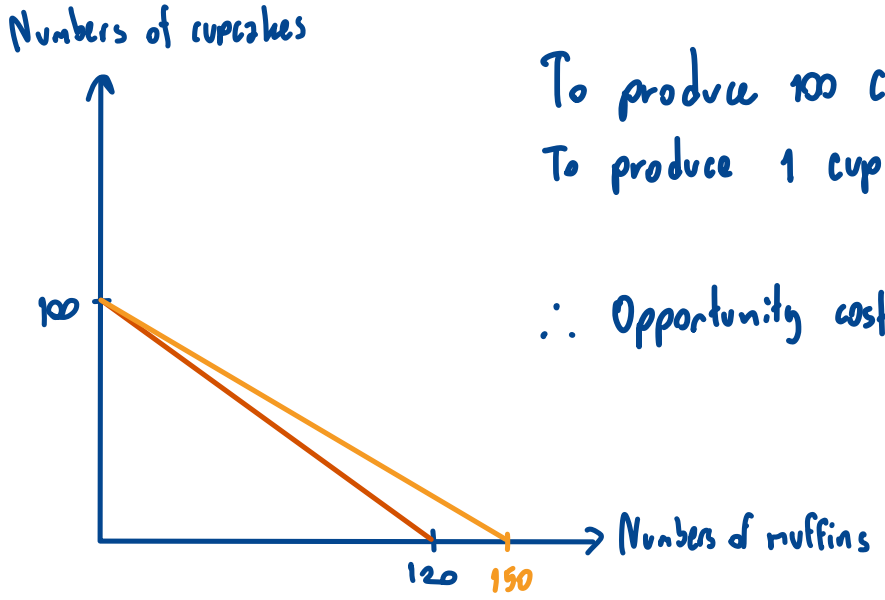
$= 1.2$ muffins

(b) Opportunity cost of producing 60 cupcakes $= 60 \times 1.2 = 72$ muffins

So, a baker can produce no more than $120 - 72 = 48$ muffins

$\therefore$ A baker cannot produce 60 cupcakes and 50 muffins because there are not enough resources.

(x)



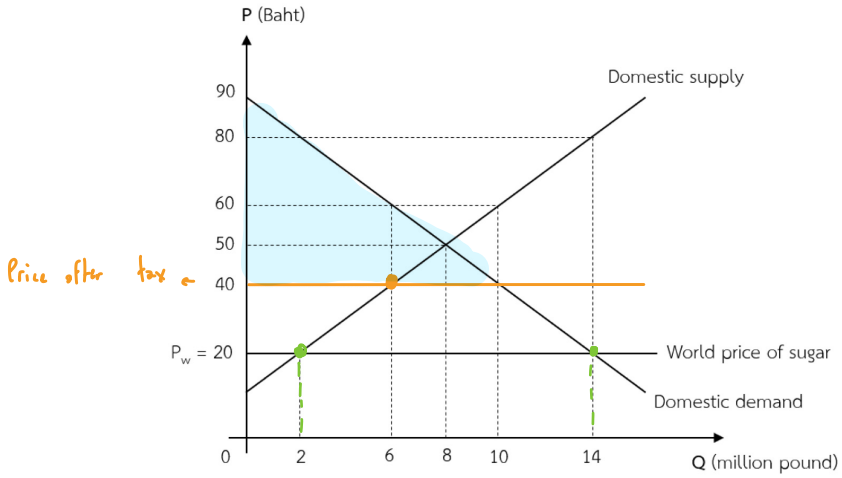
To produce 100 cupcakes, losing 150 muffins
To produce 1 cupcake, losing $= \frac{150}{100}$

$= 1.5$ muffins

$\therefore$ Opportunity cost increased by $1.5 - 1.2$

$= 0.3$ muffins

2



(a) When sugar price is at 20 Baht, Domestic supply is 2 million pounds But the quantity demand is 14 million pounds. There is an excess in demand, so the country has to import the rest of the sugar which is 12 million pounds of the quantity demand.

(b),(c) Due to the goverment collected an import unit tax of sugar, price will be 40 baht per pound. So, domestic supply become 6 million pounds.

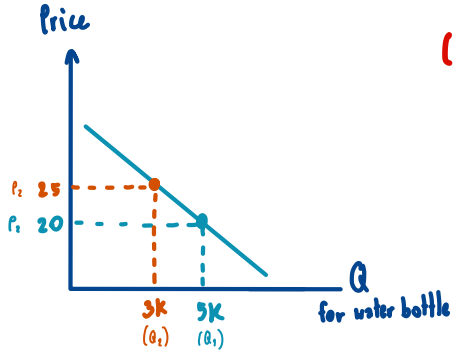
(d) Consumer surplus is a net gain of all consumers's different between their willingness to pay and the market price.
From the graph, it is clear that the highest willingness to pay is at 90 baht per pound, while the actual price after including tax is 40 baht. So, the difference in price is 50 baht.
At 40 baht, total demands is 10 million pounds of sugar. Thai people produced 6 million pounds while the rest is imported.
Total consumer surplus is; $CS = \frac{1}{2} \times 50 \times 10m$
$= 250$ million baht.

(e) When the government imposes import tax, the sellers are signaled that the price will increase. So, they produce more from 2 million pounds to 6 millions pounds. At this price, total import is 4 million pounds. If the unit tax is collected for imported good only, the tax is

40 - 20 = 20 baht per pound.

The total revenue that the government gains from import tax is 20 baht x 4 million pounds = 80 million baht.

3



(a) $Ed = \frac{\Delta Q}{\Delta P} \cdot \frac{Q}{P} = \frac{Q_2 - Q_1}{P_2 - P_1} \cdot \frac{P_1}{Q_1}$

$= \frac{3000 - 5000}{25 - 20} \times \frac{20}{5000}$

$= -\frac{8}{5} = -1.6$

(b) The total sale revenue from selling sweetened green tea at Thammasat University is decreased because the absolute elasticity demand ($|Ed|$) is more than 1.
If price increase by 1 unit, the demand decrease quite a lot.

(c) let $P_1 = 20$ Baht, $P_2 = 25$ Baht [Greentea]
$Q_1 = 2500$ bottles, $Q_2 = 3000$ bottles [Superdrink]

$Ed = \frac{Q_2 - Q_1}{P_2 - P_1} \cdot \frac{P_1}{Q_1} = \frac{3000 - 2500}{25 - 20} \times \frac{20}{2500}$

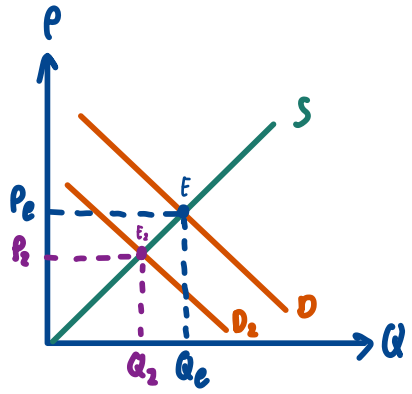
$= \frac{4}{5}$

$= 0.8$

(d) Yes, they are substitutes because when price of sweetened greentea increase, the quantity demand of superdrink also increase as well.

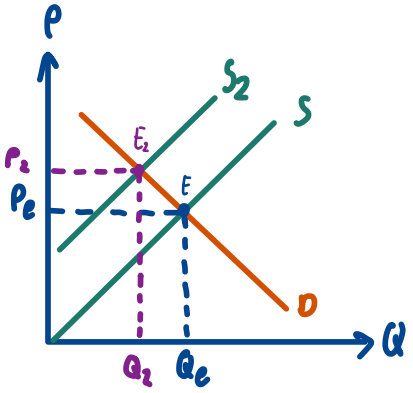
4

(a)



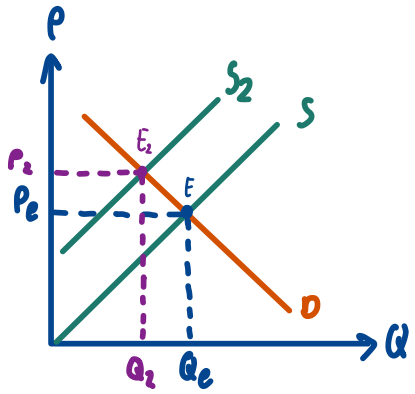
At point E shows the equilibrium of a liquor at Pe and Qe. After putting up a billboards with the health compsign, the equilibrium change to E_2 by demand shift to the left because people realize the health problem, so they consume less alcohol caused decreasing in demand from Qe to Q_2.

(b)



At point E tells us the original equilibrium. After unit tax is collected by government, the quantity supply shift to the left because of higher cost of production leaded to a decrease of quantity supply from Qe to Q_2. Therefore, the price is increased from Pe to P_2 to reach a new equilibrium at E_2.

(c)



Collecting unit tax caused higher of cost production. People who drink occasionally will demand less, but people who are addicted to alcoholic still buy it anyway even price is higher.