

Exercise 1

1. You are considering the number of hamburgers that you plan to order. Based on the following table, complete the table and answer the following questions.
 - a. How many units of hamburgers should you order? Why?
 - b. Suppose you decide to order 2 hamburgers. Is this underallocation or overallocation? Explain.
How much is your deadweight loss?
 - c. Suppose you decide to order 5 hamburgers. Is this underallocation or overallocation? Explain.
How much is your deadweight loss?

Quantity	Total Benefit	Marginal Benefit	Total Cost	Marginal Cost	Total Net Benefit
1 st	80	80	20	20	60
2 nd	140	60	40	20	100
3 rd	180	40	60	20	120
4 th	200	20	80	20	120
5 th	200	0	100	20	100

2. With diagrams, explain the differences between tariff and quota. Also, explain the impact on domestic stakeholders (consumers, producers, and government), i.e., who is better off and who is worse off? Why?
3. Consider an exporting country. Analyze welfare effect on all stakeholders when its government impose "Export Tax", i.e., per-unit tax imposed on the exported good. Draw a diagram(s) and provide complete analysis on who gain(s) and who lose(s).
4. A "small", open economy is engaging in international trade. Its domestic demand curve is given by $P = 100 - Q$ and its domestic supply curve is given by $P = Q$. The world price of the good is 20\$. Answer the following questions.
 - a. What does it mean for a country to be "small"? What implication of being "small" has on the world supply curve?
 - b. Is this economy either an exporting or important country? Why? How many units of the goods is the country is currently importing or exporting?
 - c. Now suppose the government decides to intervene. If the country is importing, the government will impose import tariff of 10\$ per unit. If the country is exporting, the government will impose export subsidy of 10\$ per unit. Calculate
 - i. Domestic consumer and producer surplus after the intervention
 - ii. Either subsidy cost or tariff revenue
 - iii. Deadweight loss from the intervention.

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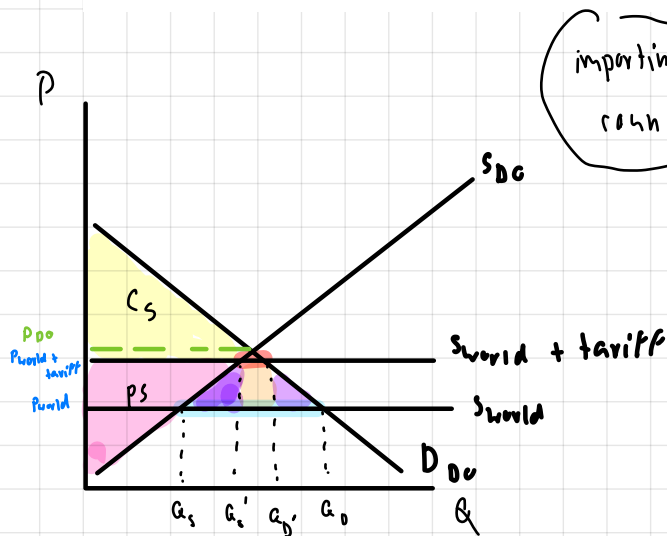
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A: 4 pieces since it provides you a max benefit

B: Underallocation since we couldn't get benefit that we could have
 $CMB > MC$ Deadweight loss = $60 - 20 = 40$

C: Overallocation since we get $MB < MC$, which is not $MB = MC$
 Deadweight loss = $0 - 20 = -20$

2. With diagrams, explain the differences between tariff and quota. Also, explain the impact on domestic stakeholders (consumers, producers, and government), i.e., who is better off and who is worse off? Why?

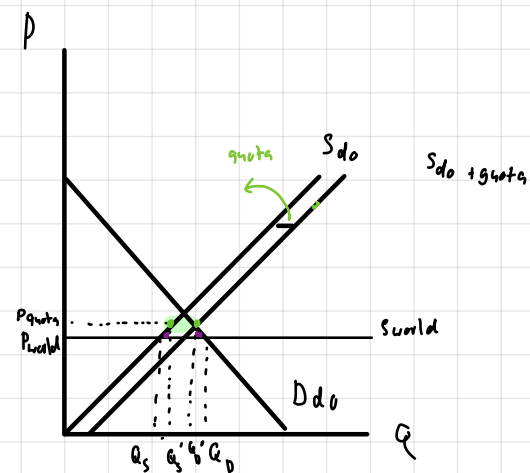


consumers: they tend to buy less things since the price rising up, meaning that consumer surplus ↓

producer: they tend to produce more due to higher potential price producer surplus ↑

government: get revenue by orange area

but loss in deadweight loss by yellow area



consumers: worse because price go up $C_S \downarrow$

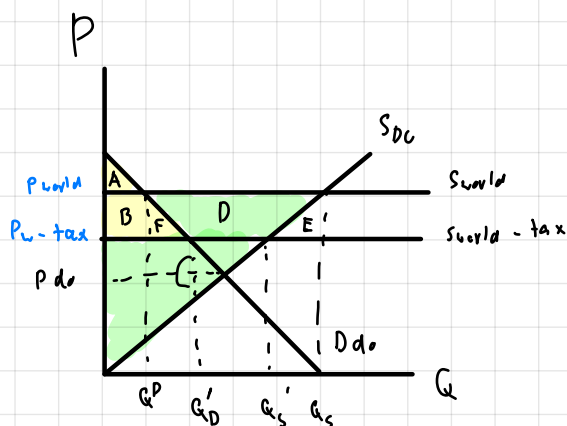
producer: better because they can sell more and with the higher price

government: make the deadweight loss by yellow area

$$\text{Quota revenue} = (P_{Quota} - P_{World}) \times (Q_{D1} - Q_{S1})$$

worse off: why:

3. Consider an exporting country. Analyze welfare effect on all stakeholders when its government impose "Export Tax", i.e., per-unit tax imposed on the exported good. Draw a diagram(s) and provide complete analysis on who gain(s) and who lose(s).



consumer: Better due to Price ↓ and Consumer surplus ↑
 $[A \rightarrow (A+B)]$ ∴

producers: worse due to Price ↓ and producer surplus ↓
 $[(B+D+C) \rightarrow C]$ ∴

$F+E$ = deadweight loss

4. A "small", open economy is engaging in international trade. Its domestic demand curve is given by

$P = 100 - Q$ and its domestic supply curve is given by $P = Q$. The world price of the good is 20\$.

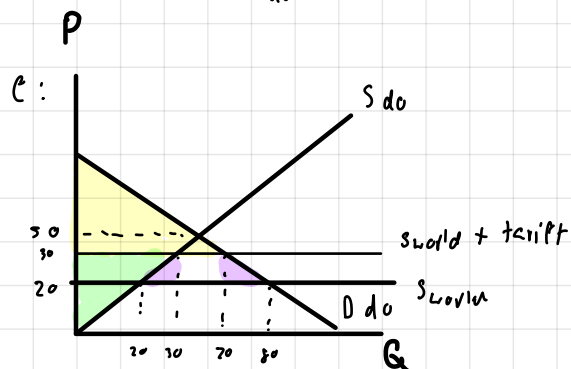
Answer the following questions.

- What does it mean for a country to be "small"? What implication of being "small" has on the world supply curve?
- Is this economy either an exporting or importing country? Why? How many units of the goods is the country currently importing or exporting?
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A: To be small country require selling and buying at market price
 , meaning that world supply = Domestic supply

B: Since Demand domestic = Supply domestic $\Rightarrow 100 - Q = Q$
 $Q = 50$ units

$P_{world} = 20 \Rightarrow$ Demand_{do} = 80
 Supply_{do} = 20 $\rightarrow$ import = 60 units
 import country $[P_{do} > P_{world}]$



consumer surplus = $\frac{1}{2} \times 70 \times 100 = 3500$

producer surplus = $\frac{1}{2} \times 30 \times 30 = 450$

Deadweight loss = $2 \times \left[\frac{1}{2} \times 10 \times 10 \right] = 100$