

1. You are considering the number of hamburgers that you plan to order. Based on the following table,

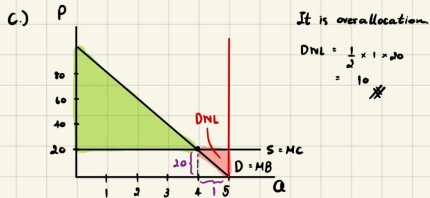
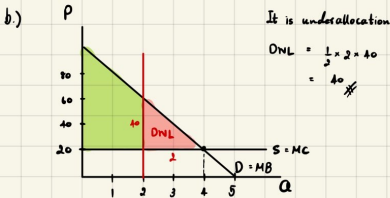
complete the table and answer the following questions:

- How many units of hamburgers should you order? Why?
- Suppose you decide to order 2 hamburgers. Is this underallocation or overallocation? Explain. How much is your deadweight loss?
- Suppose you decide to order 5 hamburgers. Is this underallocation or overallocation? Explain. How much is your deadweight loss?

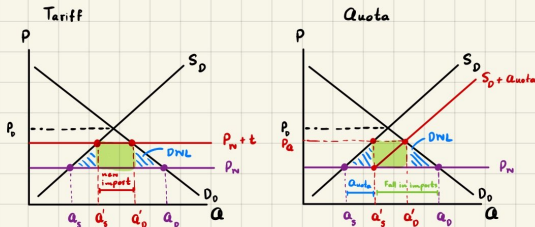
| Quantity | Total Benefit | Marginal Benefit | Total Cost | Marginal Cost | Total Net Benefit |
|-----------------|---------------|------------------|------------|---------------|-------------------|
| 1 st | 80 | 80 | 20 | 20 | 60 |
| 2 nd | 140 | 60 | 40 | 20 | 100 |
| 3 rd | 190 | 40 | 60 | 20 | 130 |
| 4 th | 230 | 20 | 80 | 20 | 150 |
| 5 th | 260 | 0 | 100 | 20 | 160 |

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a.) We should buy hamburgers for 4 units because we will be better off when marginal benefit is not less than marginal cost of hamburgers. So we should buy them when marginal benefit is greater or equal to marginal cost.



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?

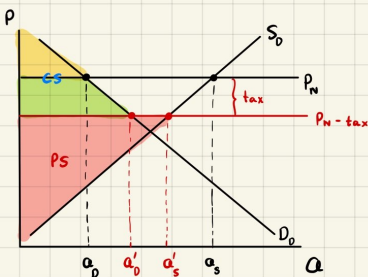


For Tariff, government will charge tax on import goods, so the price will be higher making producers want to produce more while consumers have to pay more so they buy less.

While for Quota, government will limit amount of good to be imported. So the domestic supply will increase but price also increases making demand drops.

However, if demand increases, tariff leads to more imports at the same price which makes government and producers are better off while consumers are worse off due to higher price.

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).



When government imposes tax on exports, it makes price selling to another country is higher. So the demand from outside country drops making producers can export in less amount and has to sell goods at a lower price in their country. Therefore, domestic consumers will enjoy consuming goods at a cheap price while producers lose their benefit.

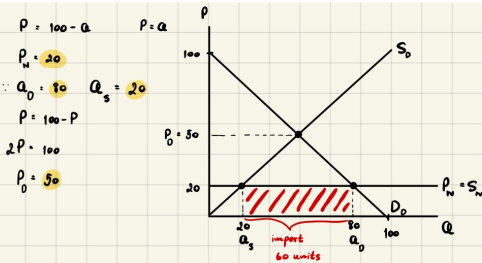
4. A "small", open economy is engaging in **international trade**. Its domestic **demand curve** is given by $P = 100 - Q$ and its domestic **supply curve** is given by $P = Q$. The **world price** of the good is **20\$**.

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?

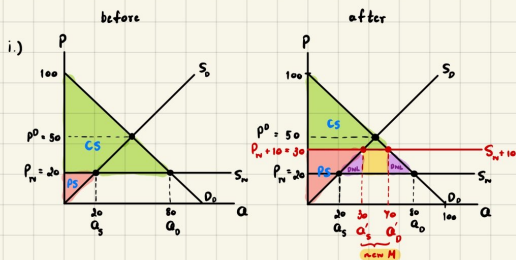
A country that is a small open economy is an economy participating in international trade. But it has small size of population so it makes a country can produce in a tiny amount. So it will have no effect to the world supply curve.

- b. Is this economy either an **exporting** or **importing** country? Why? **How many units** of the goods is the country is currently importing or exporting?



This country is importing goods for 60 units because the domestic price $P_0 = 50$ is higher than the world price $P_w = 20$.

- 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**
- Domestic consumer and producer **surplus** after the intervention
 - Either subsidy cost or tariff revenue
 - Deadweight loss from the intervention.



before : Producer Surplus : $\frac{1}{2} \times 20 \times 20 = 200 \$$

Consumer Surplus : $\frac{1}{2} \times 80 \times 80 = 3,200 \$$

After : Producer Surplus : $\frac{1}{2} \times 30 \times 30 = 450 \$$

Consumer Surplus : $\frac{1}{2} \times 70 \times 70 = 2,450 \$$

ii) Tariff revenue : $(\text{tariff}) \times (\text{units of new imports})$
 $= 10 \times 40 = 400 \$$

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