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
1st		80		20	
2nd		60		20	
3rd		40		20	
4th		20		20	
5th		0		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?
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.

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?

Ans We should buy 1 2 3 4 unit of hamburgers because we should continue to buy as long as Marginal benefit ≥ Marginal cost

   b. Suppose you decide to order 2 hamburgers. Is this underallocation or overallocation? Explain. How much is your deadweight loss?

Ans This is underallocation of resorces because Marginal benefit > Marginal cost that mean too few goods and traded
Dead weigh loss is 40

   c. Suppose you decide to order 5 hamburgers. Is this underallocation or overallocation? Explain. How much is your deadweight loss?

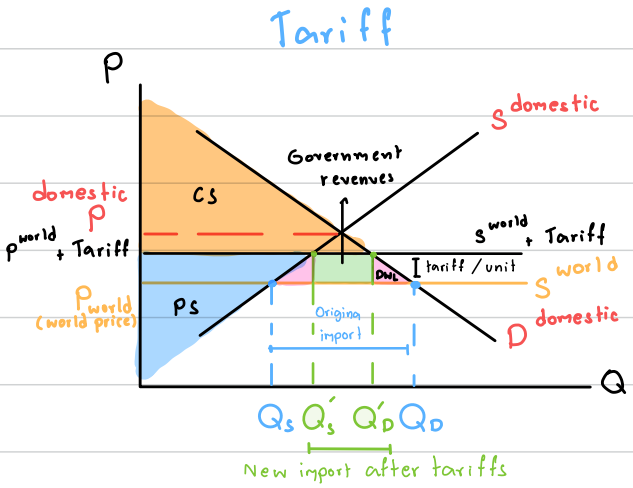
Ans This is overallocation of resorces because Marginal benefit < Marginal cost that mean too many goods and traded
Dead weigh loss is 20

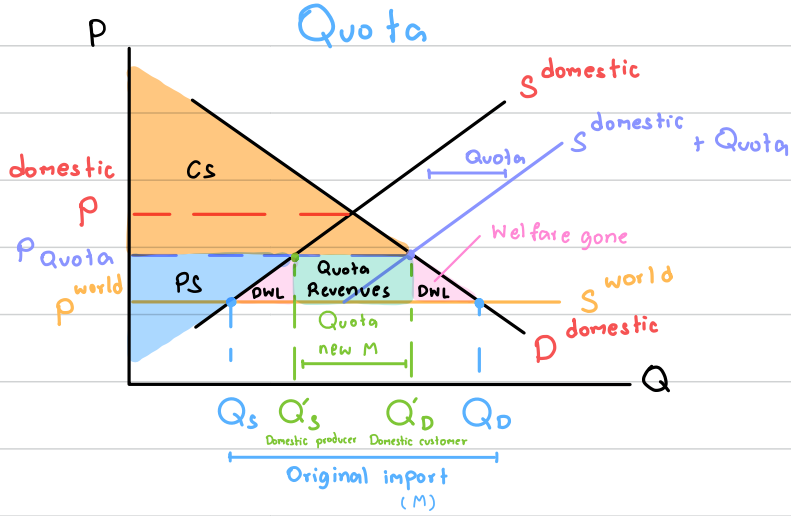
TB - TC

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

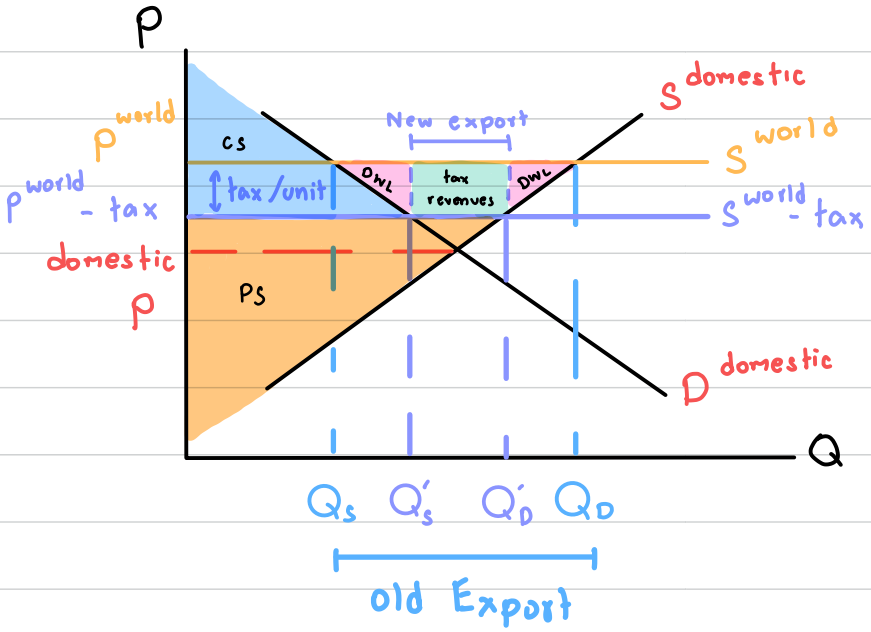
2. With diagrams, explain the differences between tariff and quota. Also, explain the impact on domestic stakeholders (consumers, producers, and government), i.e., who is better off and who is worse off? Why?

Ans The differencess of tariff and quota is tariff don't have equilibrium due to demand and supply not equal but quota have it. Tariff increase the import price, shifting the S^{world} upwards This allow more domestic producer to compete against foreign producer Quota allows the holders to buy good abroad at Pworld & sell them in domestic market at higher price, making money





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).



Ans After tax price will reduce, Consumer can buy more Produce can produce lass. Consumer surplus is more and Producer surplus is less. Government can gain tax and society worse off.

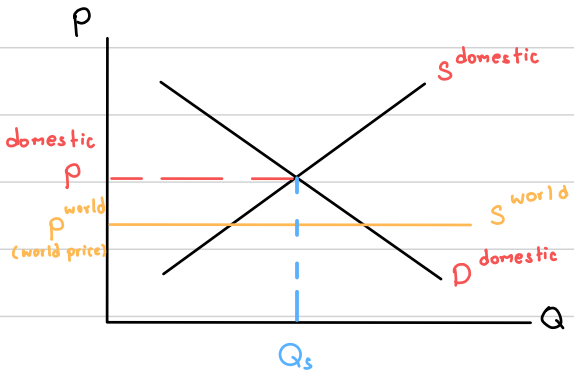
4. A "small", open economy is engaging in international trade. Its domestic demand curve is given by P = 100 – Q and its domestic supply curve is given by P = Q. The world price of the good is 20$. Answer the following questions.

   a. What does it mean for a country to be "small"? What implication of being "small" has on the world supply curve?

Ans Small Domestic Economy / Country

- Whatever it does not affect the world
  - i.e. How much it buys or sell does not affect the world price
- World supply curve is horizontal
  - i.e. The world can supply the good at P_{world} (World price) as much as the small country want to buy.

   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?



This is import country. Since $P_{domestic} > P_{world}$ the market is not good at making the good (should import good)

$Q = 100 - Q$

$2Q = 100$

$Q^* = 50$

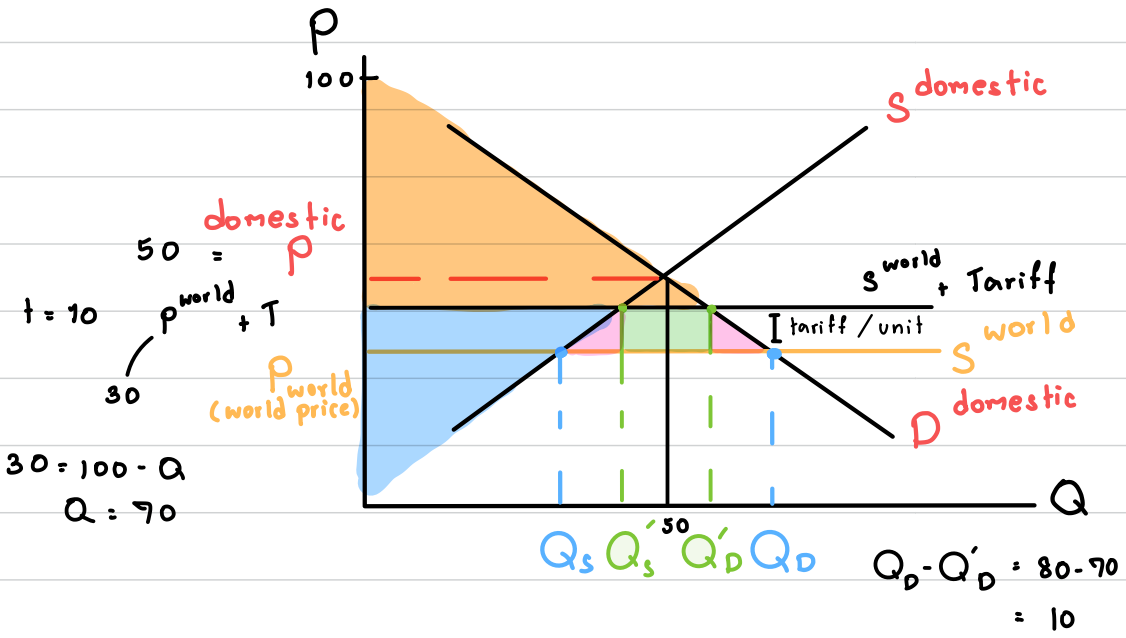
This country is importing 50 units of good

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.



Ans P = 50, Q = 50

Consumer surplus = $\frac{1}{2}$ × 70 × 70 = 2450

Producer surplus = $\frac{1}{2}$ × 30 × 30 = 450

∴ It is tariff because this country is importing.

DWL : $\frac{1}{2}$ × 10 × 10 = 50