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.

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

a) How many unit of hamburger should you order? Why?

The unit of hamburger that I order is 4th unit because after deduct total cost from total benefit which give the maximize number of Total Net Benefit. Moreover, Allocative efficiency is achieved due to the condition that Marginal Cost = Marginal Benefit.

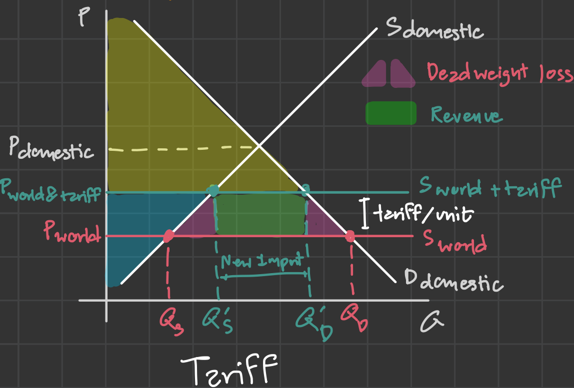
b) Suppose decide to order 2 hamburgers

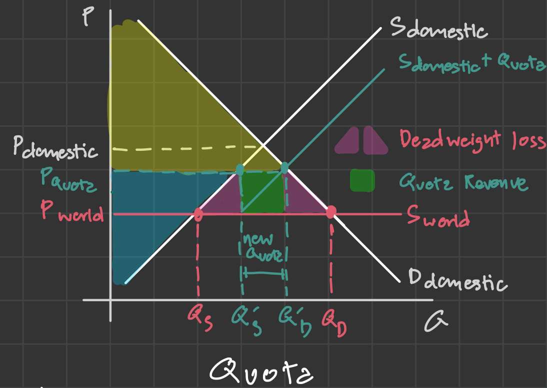
If decide to order 2 hamburgers, it will cause underallocation of resource because the marginal benefit is more than the marginal cost. The dead weight loss is 40.

c) Suppose decide to order 5 hamburgers

If decide to order 5 hamburgers, it will cause overallocation of resource because the marginal benefit is less than the marginal cost. The dead weight loss is 20.

2) With diagram, explain the difference between Tariff and Quota also the impact on domestic stakeholders





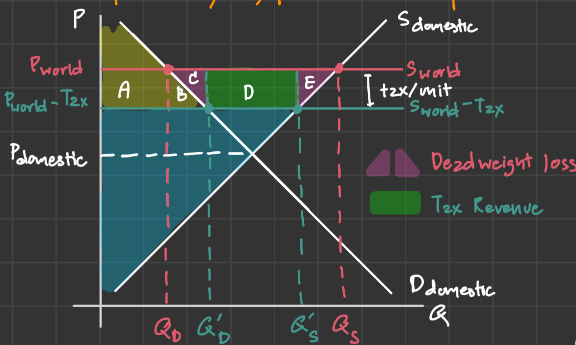
Tariff

Pworld increase due to tariff, consumer will buy less quantity (Consumer surplus decrease). Producers can sell at higher price now, they produce more quantity (Producer Surplus ↑) In addition, government get tariff revenue (New M × Tariff)

Quota

Quota Limits amount of goods to be brought into domestic economy. Then government allows people to make trade according to market force which increase S domestic and increase the price to P_{quota} when domestic producers produce at Q'_S and domestic consumer consume at Q'_D.

3.) Consider an exporting country. Analyze welfare effect on all stakeholders when government impose "Export tax", i.e., per-unit tax imposed on the exported good.



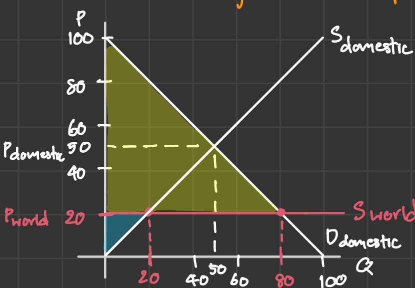
An export tax is a tax imposed by the government on the exporters of the economy to removing an export incentive for the protection and enhance of consumer welfare. P world decrease due to export tax, consumer pay less so they will buy more quantity, on the other hand, producer sell at lower price, so they produce less quantity. Consumer gain AB, Produce loss ABCDE, and Government gain Tax revenue D.

4.) A "Small", open economy is engaging an international trade. Domestic demand curve is $P = 100 - Q$ and Domestic supply curve is $P = Q$. The world price of the goods is 20$.

a.) What doest it mean for a country to be "small"? What implication of "Small" has on the world supply?

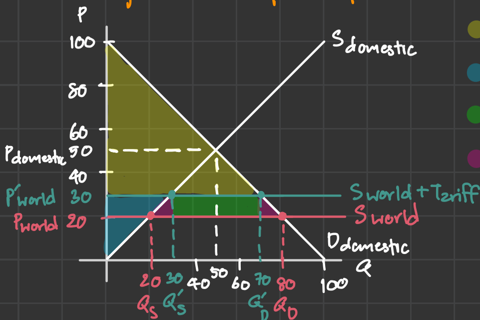
The small country assumption means that the country's imports are very small share when compared to the world market - so small that even a complete elimination of imports would have a few effect on world demand for the product and thus would not effect the world supply curve.

b.) Is this economy either an exporting or importing country? Why? How many unit?



This country have import economy. At the world price, the quantity of domestic demand is more than the quantity of domestic supply which mean that the demand to buy of domestic consumer is more than the supply that country have. Hence, a small country need to import from the rest of the world to fulfill the demand of domestic consumer. In addition, the country need to import 60 units of the goods.

c.) The government impose import tariff of 10$ per unit. Calculate CS, PS, Tariff revenue and Deadweight loss



- consumer surplus = 1/2 · base · height = 1/2 · 70 · 70 = 2450
- producer surplus = 1/2 · base · height = 1/2 · 30 · 30 = 450
- tariff revenue = width · length = 10 · 40 = 400
- deadweight loss = (1/2 · base · height)2 = (1/2 · 10 · 10)2 = 100