<u>Exercise 1</u>

1. You are considering the number of hamburgers that you plan to order. Based on the following table, <u>complete the table and answer the following questions</u>.
   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?

TB - TC

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	180
5^{th}	200	0	100	20	200

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. <u>Calculate</u>
      i. Domestic consumer and producer surplus after the intervention
      ii. Either subsidy cost or tariff revenue
      iii. Deadweight loss from the intervention.

1.) a.) We should buy 1, 2, 3, 4 unit of hamburger because we should continue to buy as long as Marginal benefit ≥ Marginal cost

b.) underallocation of resources because MB > MC that mean too few goods are traded, Dead weight loss = 40

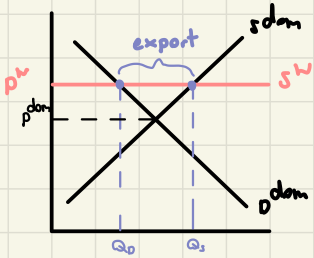
c.) Overallocation of resources because MB < MC that mean too many goods are traded, Dead weight loss = 20

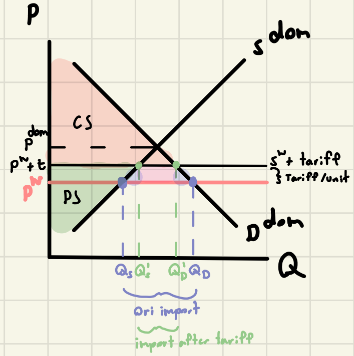
2.) The differences of tariff and quota is tariff don't have equilibrium due to demand and supply not equal but quota have it.

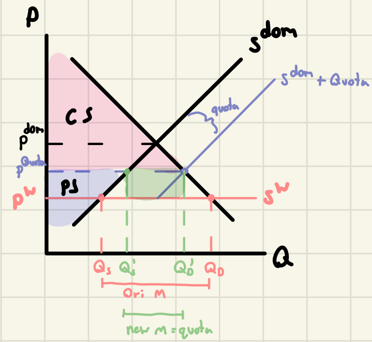
Tariffs increase the import price, shift the S^{world} upward With Tariff consumer pay more so they buy less (CS↓). Producer sell at higher price, so they produce more (PS↑)

Government gain tariff revenue.

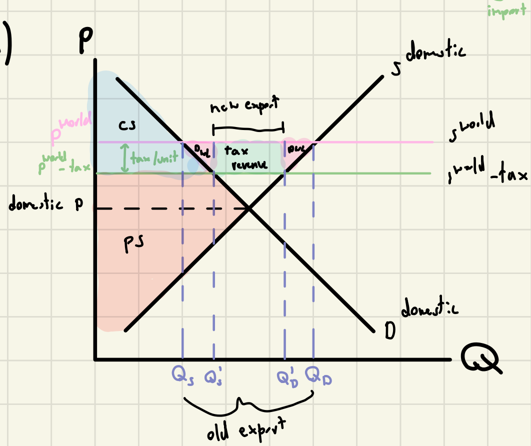
Producer and Government is better off and consumer worse off







3.)



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

4.) a.) small domestic economy / country

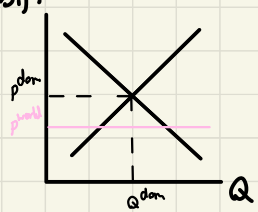
→ What ever it does, does not affect the world

i.e. how much it buy or sell does not affect the world price

→ world supply curve is horizontal

i.e. the world can supply the good at P^{world} as much as the small country want to.

b.)



Since $P^{dom} > P^{wor}$, the country is not good at making the good.

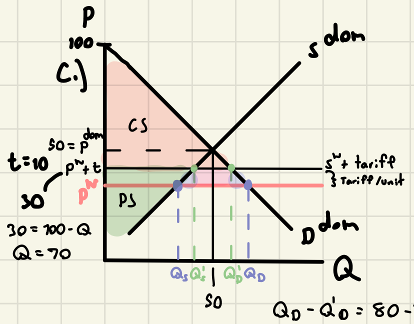
It is import country.

$Q = 100 - Q$

$Q^* = 50$

This country is importing 50 unit of goods.

c.)



$Q_D - Q_D' = 80 - 70 = 10$

$P = 50$, $Q = 50$

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

$= 2450$

Producer surplus $= \frac{1}{2} \times 30 \times 30$

$= 450$

∴ It is tariff because this country is importing.

DWL: $\frac{1}{2} \times \cancel{10}^{5} \times 10 = 50$