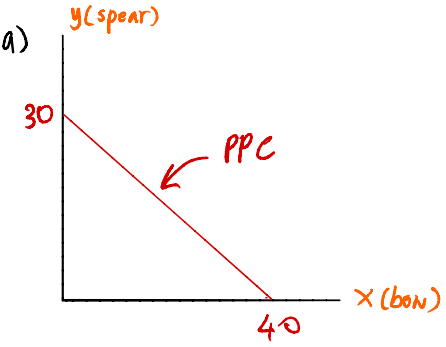
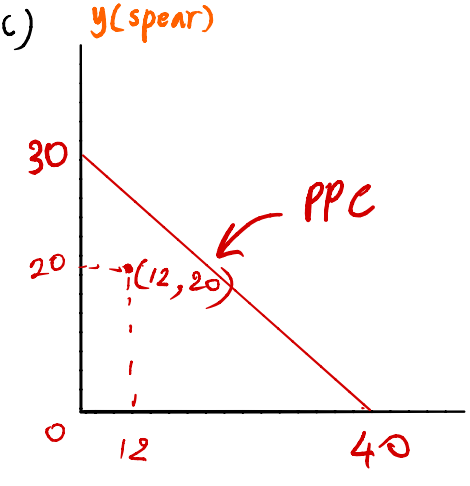
1. a)




1. b) To produce 1 spear use 4 wood and to produce 1 bon use 3 wood. The total of new sorrec 120.

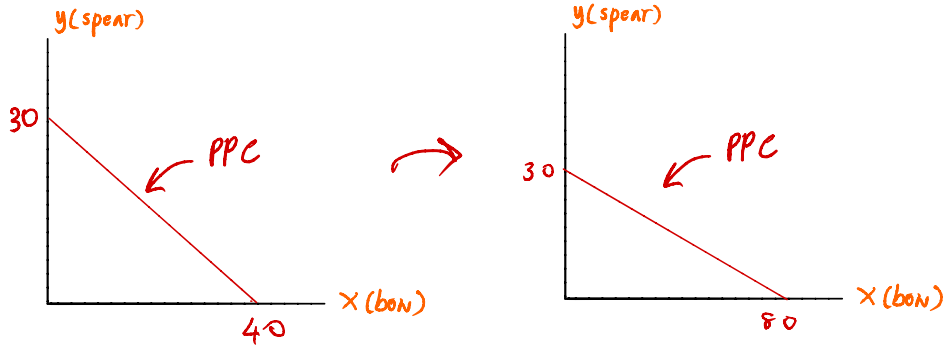
$\frac{120}{4} = 30$ spear, $\frac{120}{3} = 40$. So the amount of spear is 30 and 40 of bons. there in the opp. cost to give up 30 spears to prodree 40 bons.

1. c)




It is efficient to produce 20 spears and 12 bons. Because at point $(\overset{x}{12}, \overset{y}{20})$ is under the ppc line

1. d)

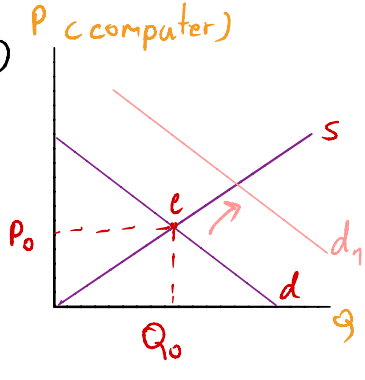



The new method to produce 1 bow used only 1.5 wood

$\frac{120}{1.5}$ = 80 of bows but spear is the same amount at 30 unit

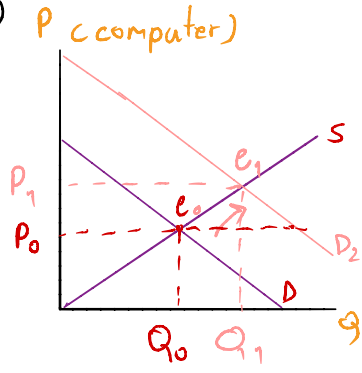
The ppc line will flater. The opp. cost for produce spear at the same amout but it can produce more bow.

2. a)



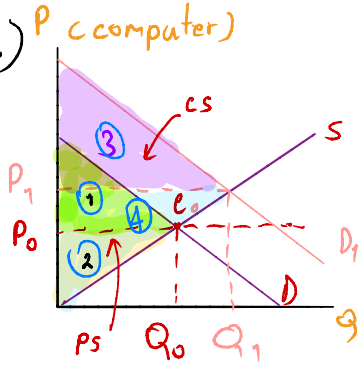

As the pandemic, computer is crucial that mean people need more computer. So increas in demand

2.b)



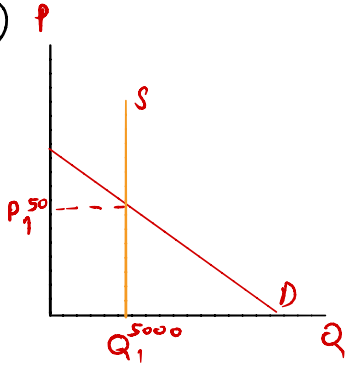

Affer what happened in 2.1) the equilibrium price at $P_0$ will excess demand. Then demand increase and equilibrium at $e_0$ change to $e_1$ as shown in the graph in this cause price also increase $P_0$ to $P_1$ and $Q_0$ to $Q_1$ as the condition of increas in demand.

2.c)

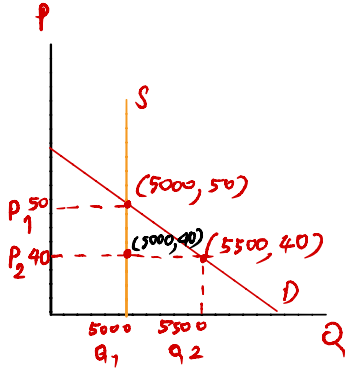



The number ① show the consumer surplus and ② show the producer surplus. During pandemic consumer surplus change to ③ and producer surplus change to ④.

3. a)




4. b)




For the elasticity of demand

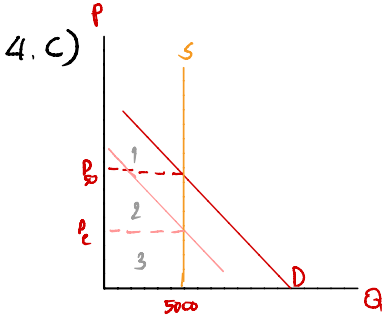
$$\frac{\Delta Q}{\Delta P} \cdot \frac{P}{Q} = \frac{Q_2 - Q_1}{P_2 - P_1} \cdot \frac{P_1}{Q_1} = \frac{5500 - 5000}{40 - 50} \cdot \frac{50}{5000}$$

$$= \frac{500}{10} \cdot \frac{50}{5000} = \frac{250}{500} = 0.5$$

For the elasticity of supply

$$\frac{\Delta Q}{\Delta P} \cdot \frac{P}{Q} = \frac{5000 - 5500}{50 - 40} \cdot \frac{50}{5000} = 0$$

4. c)




| Burden | before | after | diff. | Tax burden |
|---|---|---|---|---|
| CS | 1 | 1 | — | — |
| PS | 2 3 | 3 | 2 | 2 |
| Gov. | — | -2 | -2 | -2 |
| Total | 1 2 3 | 1 2 3 | — | (-2) |