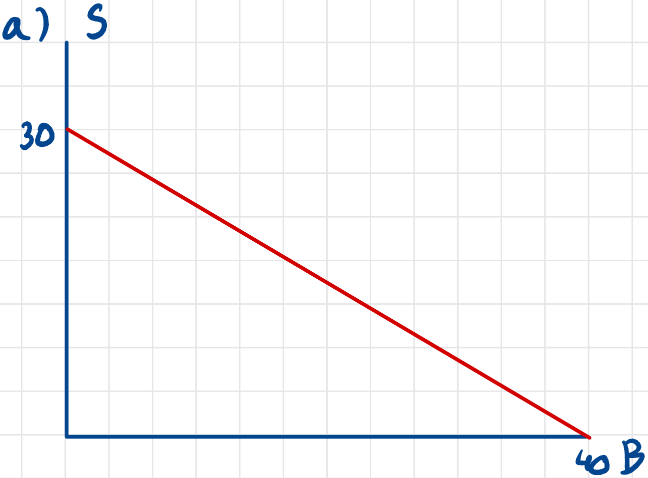
1a)

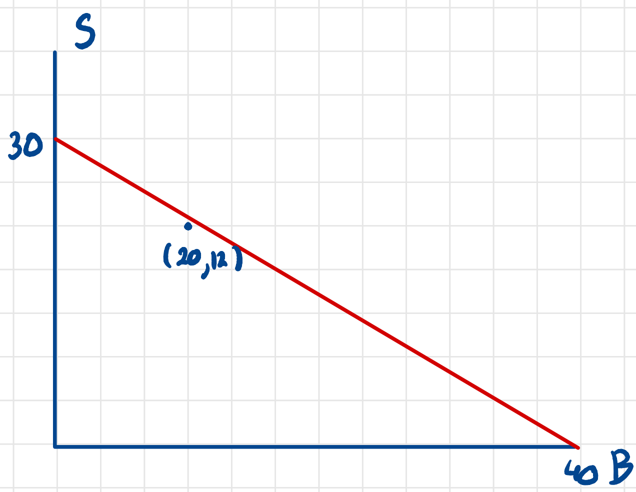



With 120 woods, we can produce 30 spears, In the other hand, we can produce 40 bows with 120 woods.

(1b)

When you produce 30 spears, the opportunity cost is 40, which come from the opportunity to produce 40 bows.

(1c)

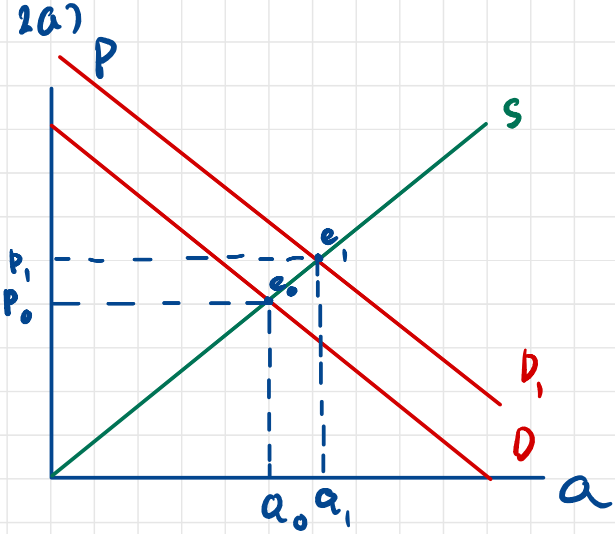


The option is not efficient, because when we caucalate, The civilization use only 116 woods to produce both spear and bow, so there is 4 woods remainning.

1d)


When the new method of making bow is discovered, The opportunity cost of spear is changed from 40 to 80 but the opportunity cost of bow is still the same. The reason why the opportunity cost of spear changed is because the new method make the civilization be able to produce more bow, so the quantity of bow that they can produce shift from 40 to 80.

2a)

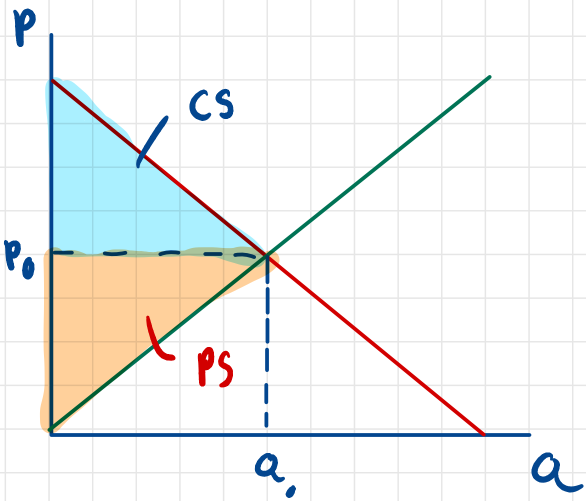



When many people have to work from home, the market demand will increase, because people need a computer device for working more than the nomal situation. However, the market supply is still the same.

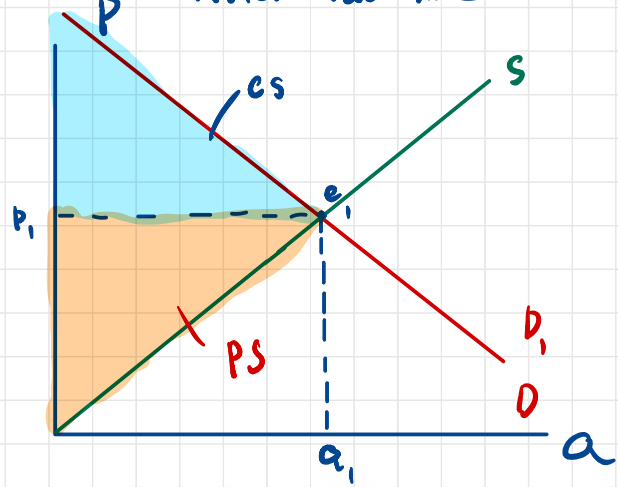
2b)

In the pademic time, there will be an excess demand, because the demand of computer device is increase. The equilibrium is shift upward from $e_0$ to $e_1$ and the equilibrium price and quantity are increase, 2C )

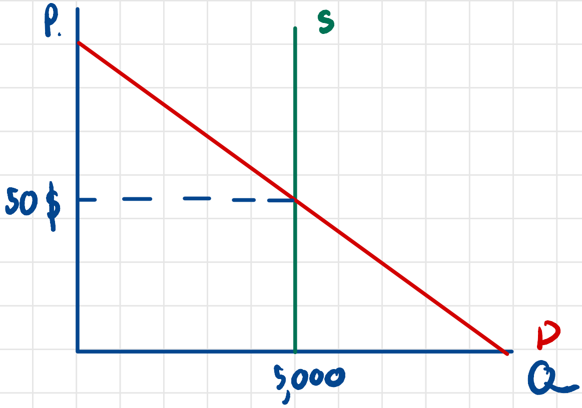
Before Pademic

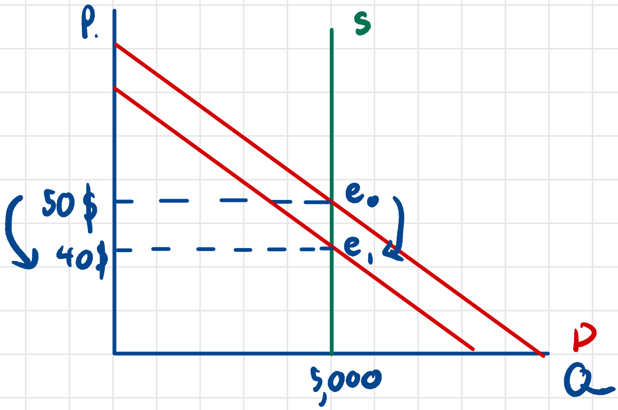



After Pademic



3a)




3b)

- Price elasticity of demand.

$$\mathcal{E}_d = \frac{P^b}{Q} \cdot \frac{\Delta Q}{\Delta P^b} = \frac{40}{5000} \cdot \frac{500}{-10}$$

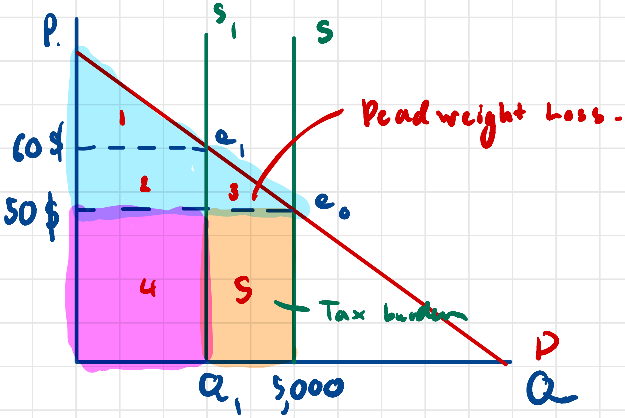
$$= -0.4$$

- Price elasticity of supply -

$$\mathcal{E}_s = \frac{P}{Q} \cdot \frac{\Delta Q}{\Delta P} = \frac{40}{5000} \cdot \frac{0}{-10}$$

$$= 0$$

3c)




After an unit tax is imposed on buyer for \$10, so the buyer have to pay \$60 for 1 unit of product. Althought, The tax burden is belongs to the sellers.