

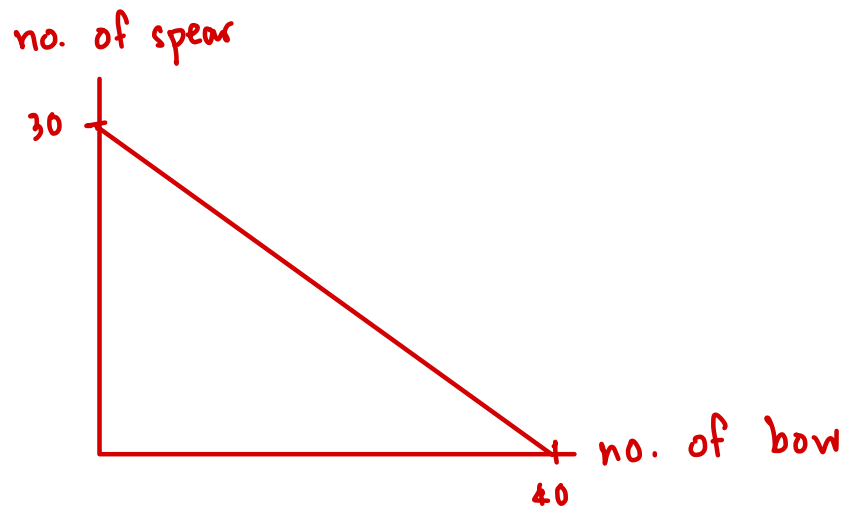
1.) a) Since the opportunity cost is constant the PPC is straight.

The maximum number of each product is the intercept on the graph.

We need 4 units of wood for a spear so $\frac{120}{4} = 30$. We need 3 units

of wood for a bow so $\frac{120}{3} = 40$. So, the X-intercept is 40 and

Y-intercept is 30.



1.) b) It takes 4 units of wood for a spear and 3 for a bow. If you use 4 units of wood for a spear instead of bow, the bow will be the opportunity cost for the spear. The opportunity cost of a spear in terms of bow is

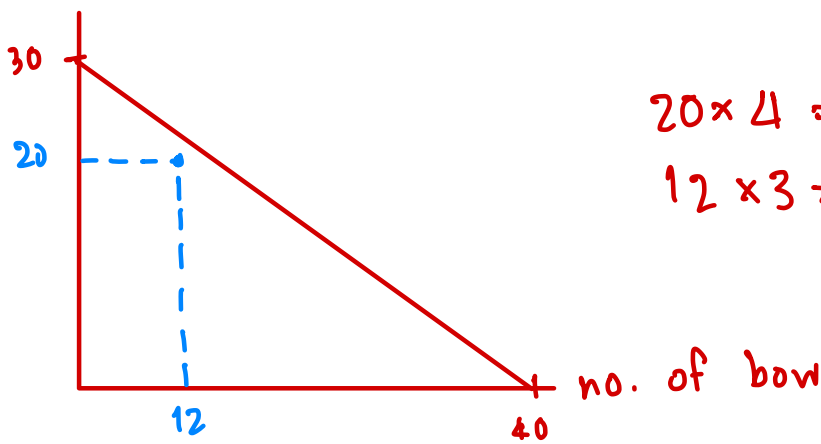
spear = 4 woods

bow = 3 woods

$$\boxed{\text{spear} = \frac{4}{3} \text{ bow}}$$

1.) c)

no. of spear



$$20 \times 4 = 80$$

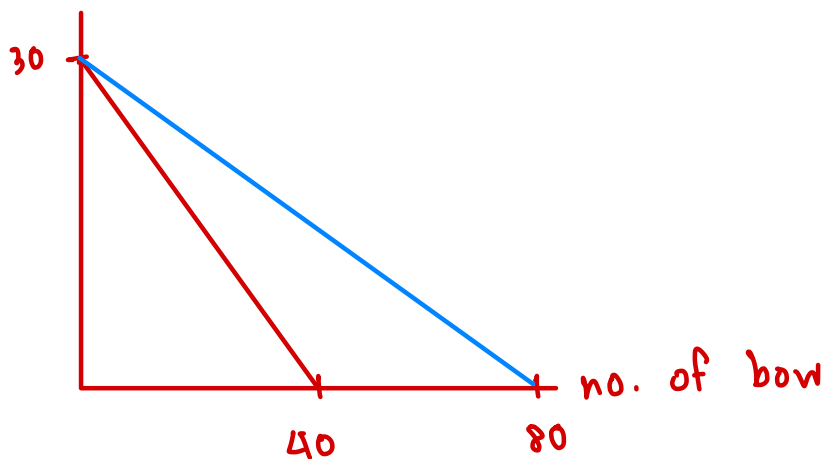
$$12 \times 3 = 36^+$$

116 woods needed

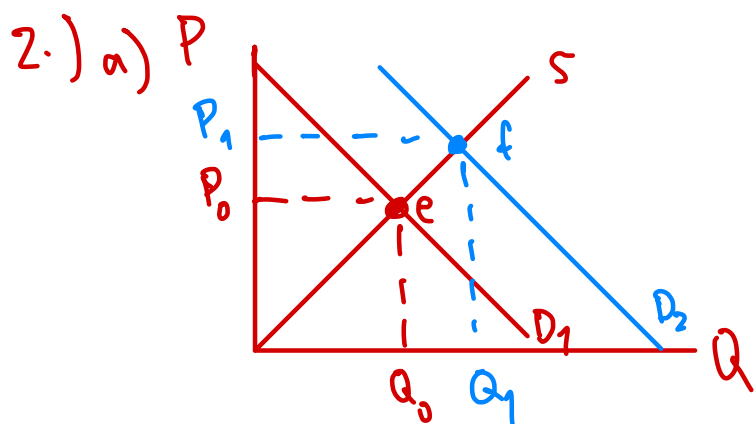
It is possible to produce 20 spears and 12 bows with 120 units of wood newly found. This option is not the most efficient option because it is a little below the PPC. If they produce 1 more spear, it will be the most efficient because the point will be on the PPC. However, I think it is efficient enough with 4 units of wood left.

1.) d)

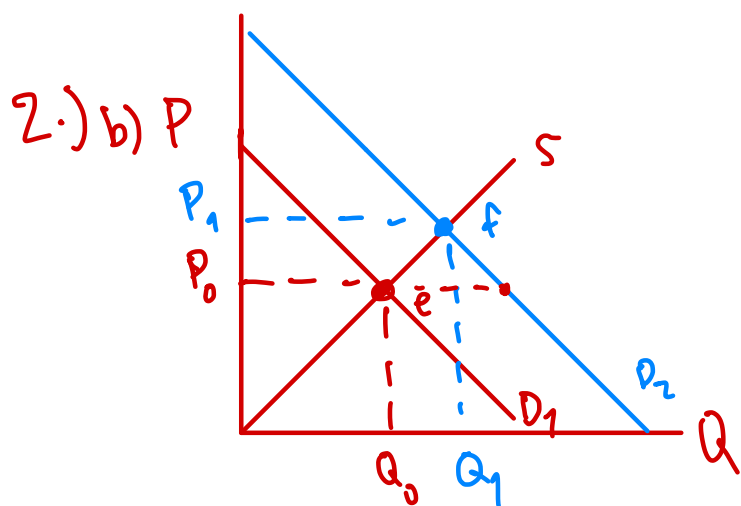
no. of spear



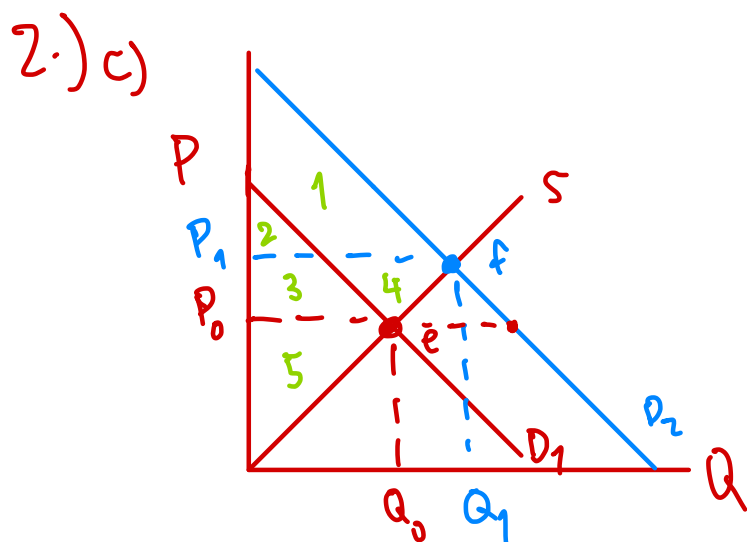
Because the new method of making bow requires lesser wood, it becomes more efficient. The X-intercept of the PPC, which represents the maximum number of bow, moves to the right because the maximum number of bow increases. The opportunity cost for a spear increases to $\frac{4}{1.5}$ or $\frac{8}{3}$.



When working from home, computer devices are crucial. The demand increases due to the need. So the demand line shifts to the right.



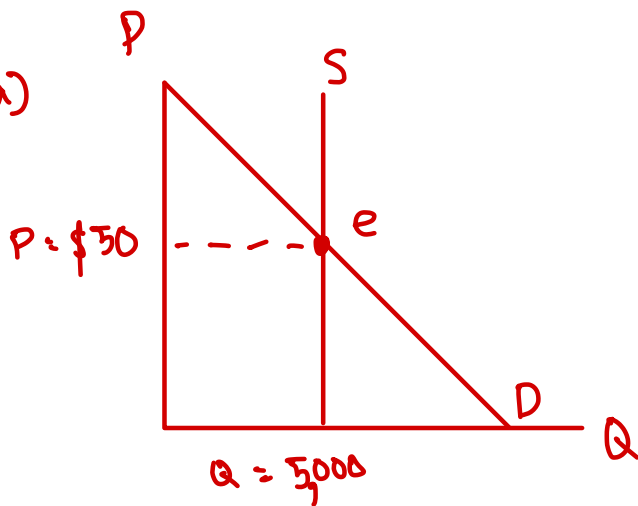
The shift of the demand line causes the excess demand and created a new equilibrium at f . At the new equilibrium, both the price and quantity increases.



	Before	During	Diff.
CS	2 3	1 2	1 -3
PS	5	3 4 5	3 4
Total	2 3 5	1 2 3 4 5	1 4

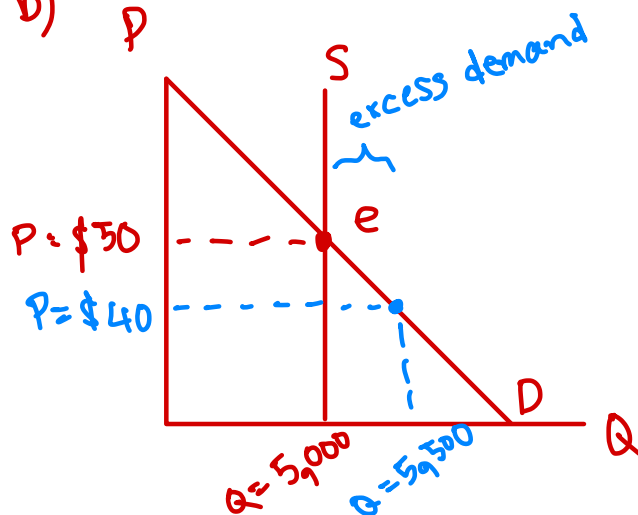
Because there is more demand, people are willing to pay more for the computer. The consumer surplus and the producer surplus both increases during the pandemic due to the increase of demand.

3.) a)



Due to the complication of the production, all the factories are producing in their full capacity to produce 5000 units a day. So, the supply is perfectly inelastic. When the supply is perfectly inelastic, there is limited supply.

3.) b)



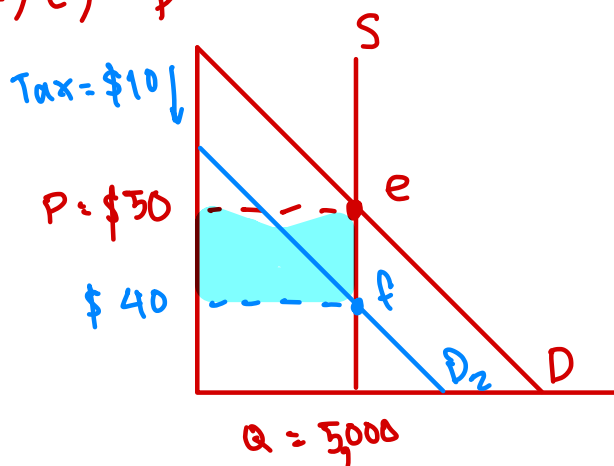
Since the supply is perfectly inelastic, the change in price only affect the demand.

$$\epsilon_d = \frac{\Delta Q}{\Delta P} \cdot \frac{P}{Q} = \frac{500}{-10} \cdot \frac{50}{5000} = -\frac{1}{2}$$

$$\epsilon_d = -\frac{1}{2}$$

Since the supply is perfectly inelastic $\epsilon_s = 0$.

3.) c)



The tax burden will be on the producers because the more inelastic the more burden. In this case, the supply is perfectly inelastic so all the burden falls on the producer.