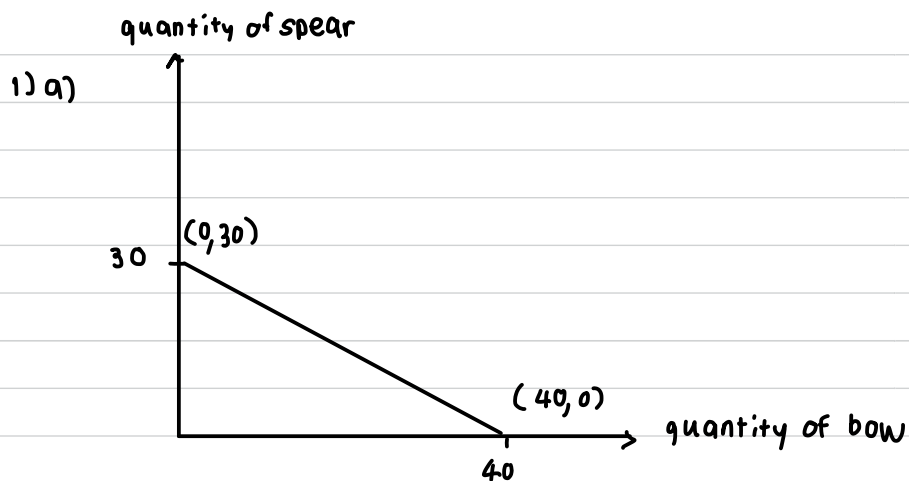




1 spear : 4 wood

1 bow : 3 wood

$\frac{120}{4}$ spear : 120 wood

30 spear : 120 wood

$\frac{120}{3}$ bow : 120 wood

40 bow : 120 wood

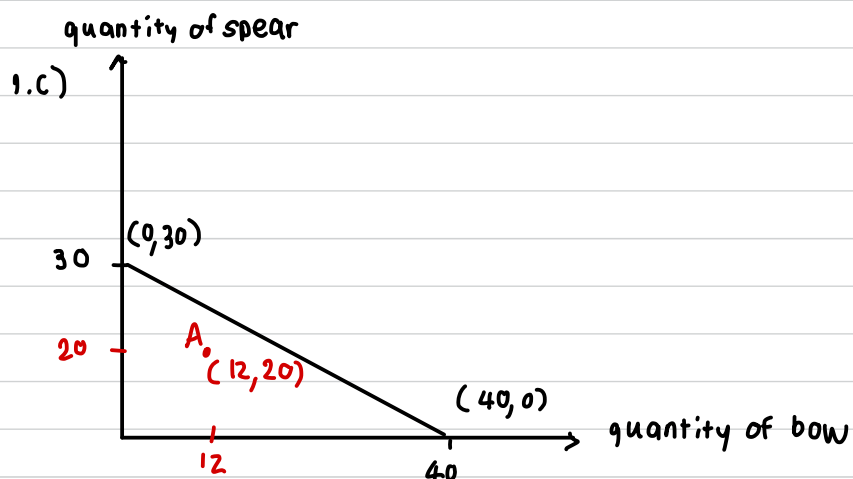
1.b) mid point $\left(\frac{40-0}{2}, \frac{30-0}{2} \right)$
 $= (20, 15)$

20 bow : x bow

15 spear : 1 spear

opportunity cost for 1 spear = $\frac{1 \cdot 20}{15}$

$= \frac{20}{15} = \frac{4}{3} = 1\frac{1}{3}$



20 spear = 20×4

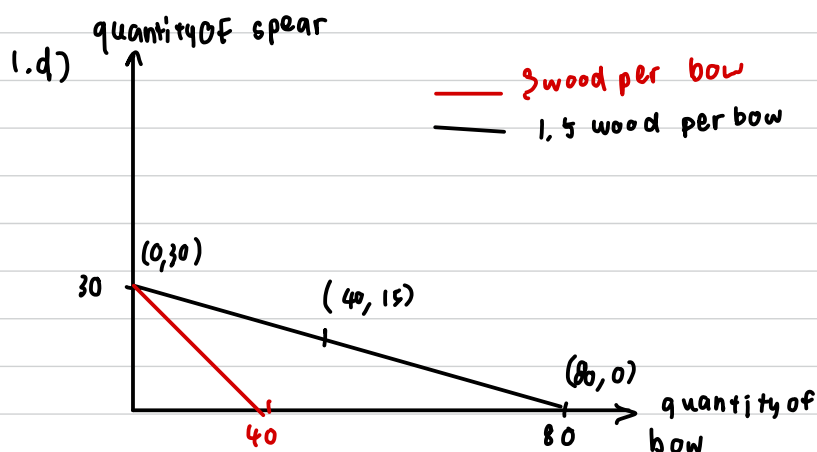
= 80 wood

12 bow = 12×3

= 36 wood

total wood used = $80 + 36$
 $= 116$

It is possible to produce 20 spears and 12 bow as the points A are below the line so it is feasible. However, it is not efficient as not all resources are used and there are some resources left.



1.5 wood = 1 bow

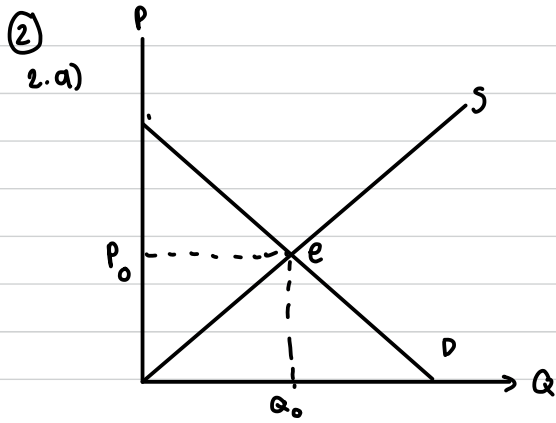
120 wood = 80 bow

40 bow = x bow

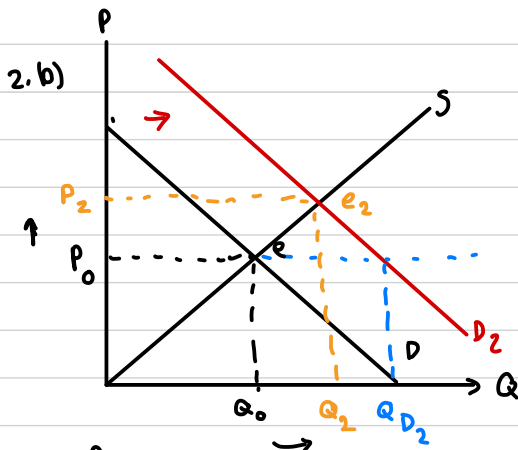
15 spear = 1 spear

$\Rightarrow \frac{1 \cdot 40}{15} = \frac{40}{15} = \frac{8}{3} = 2.66...$

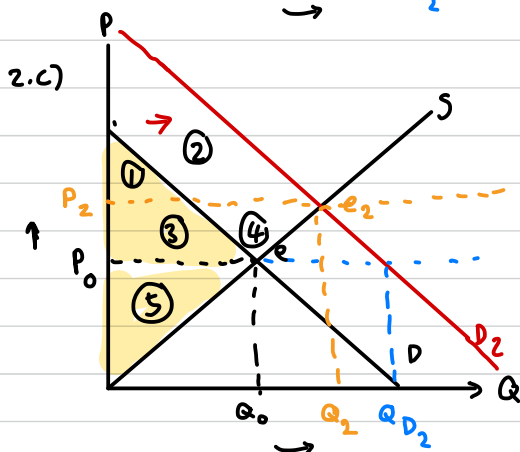
$\therefore$ the graph extended in x axis and the opportunity cost for 1 spear increase from 1.33... to 2.66... (increasing opportunity cost) so we have to sacrifice more bow than the original graph to produce 1 spear.



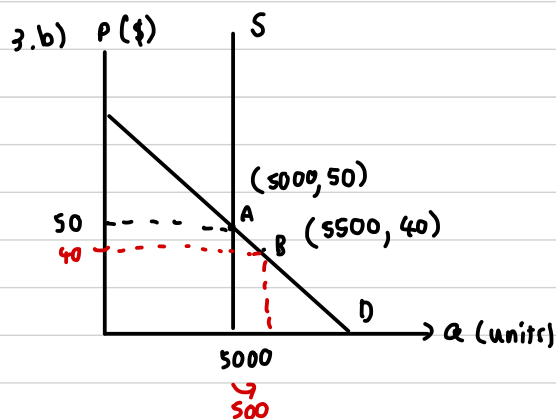
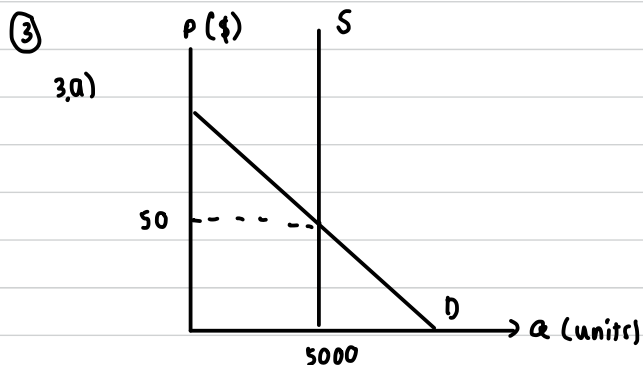
The demand will increase and shift to the right as there will be more consumer that want to buy the computer devices. The supplier will want to supply more into the market as they can sell more and the price will increase.



at P_0 there will be excess demand so the equilibrium price has to increase from P_0 to P_2 to get rid of excess demand and equilibrium quantity has to increase from Q_0 to Q_2 . Therefore, the pandemic causes equilibrium price and quantity to increase

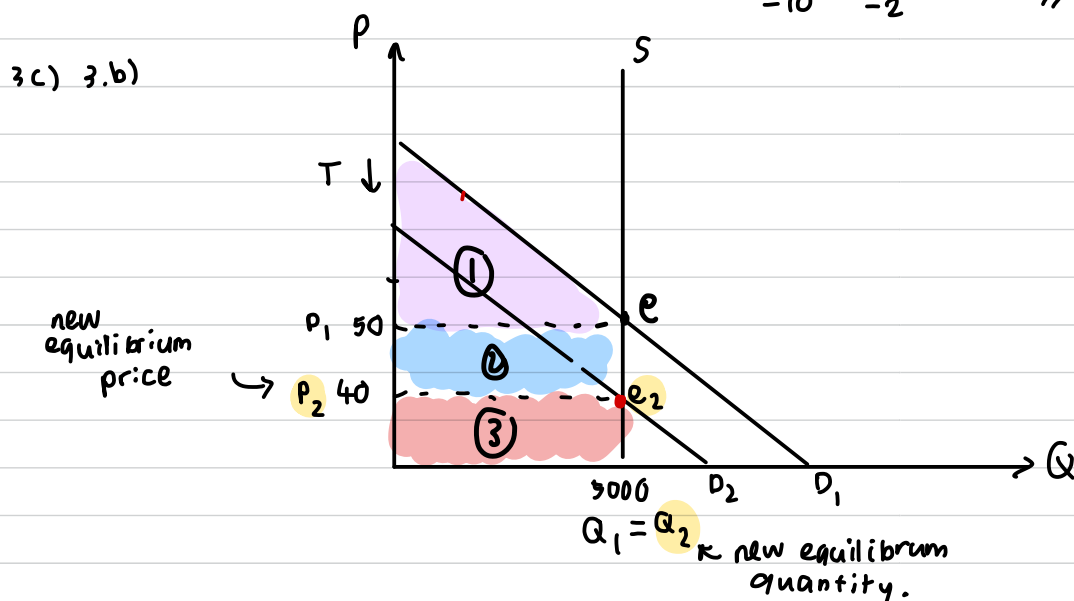


surplus	before	after	diff
CS	1 3	1 2	-3 2
PS	5	3 4 5	3 4
total	1 3 5	1 2 3 4 5	2 4 ↳ DWL



$$\begin{aligned} \epsilon_{d(A)} &= \frac{\Delta Q}{\Delta P} \cdot \frac{P_1}{Q_1} \\ &= \frac{Q_2 - Q_1}{P_2 - P_1} \cdot \frac{P_1}{Q_1} \\ &= \frac{5500 - 5000}{40 - 50} \cdot \frac{50}{5000} \\ &= \frac{500}{-10} \cdot \frac{50}{5000} \\ &= \frac{5}{-10} = \frac{1}{-2} = -0.5 // \end{aligned}$$

$$\begin{aligned} \epsilon_{s(A)} &= \frac{\Delta Q}{\Delta P} \cdot \frac{P_1}{Q_1} \\ &= \frac{0}{10} \cdot \frac{5000}{50} \\ &= 0 // \end{aligned}$$



surplus	before	after	diff	taxburden
CS	1	1	-	-
PS	2 3	3	-2	2
gov. revenue	-	2	2	-
total	1 2 3	1 2 3	-	2

There is no DWL and all tax burden belongs to sellers