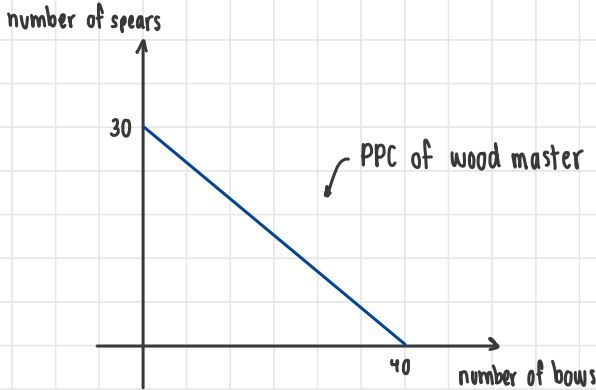


Dhanakorn Thamikasakul 6404040135

1.a)



∴ it use 4 woods to produce 1 spear, and total resource of wood master is 120 units. So, we use cross multiply to find that if we have 120 woods how many spear that we can produce.

$$\begin{array}{l} 1 \text{ spear} = 4 \text{ woods} \\ y \text{ spear} = 120 \text{ woods} \\ y = 30 \end{array} \quad \text{and bow} \quad \begin{array}{l} 1 \text{ bow} = 3 \text{ woods} \\ x \text{ bow} = 120 \text{ woods} \\ x = 40 \end{array} \quad (x, y)$$

∴ By Production PPC produce only spear, we have 30 spear to use in this production. (0, 30)
(Opportunity Costs) produce only bow, we have 40 bow to use in this production. (40, 0)

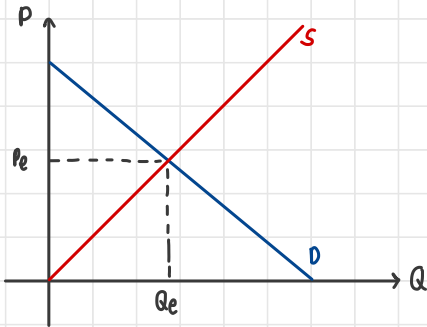
1.b) Opportunity Cost for a spear, in terms of bow

$$(x, y) = \text{spear}(0, 30), \text{ bow}(40, 0)$$

$$\frac{\Delta \text{bow}}{\Delta \text{spear}} = \frac{40-0}{0-30} = \frac{-4}{3}$$

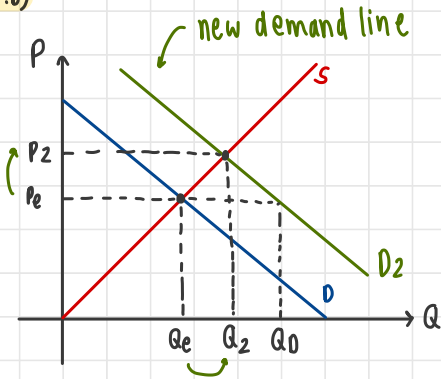
∴ if we produce 1 unit of spear, we will lose $\frac{4}{3}$ bow.

2.a)



∴ During covid pandemic, many people needs personal computer to WFH. In personal computer market, demand will shift to right because people need more computer for working.

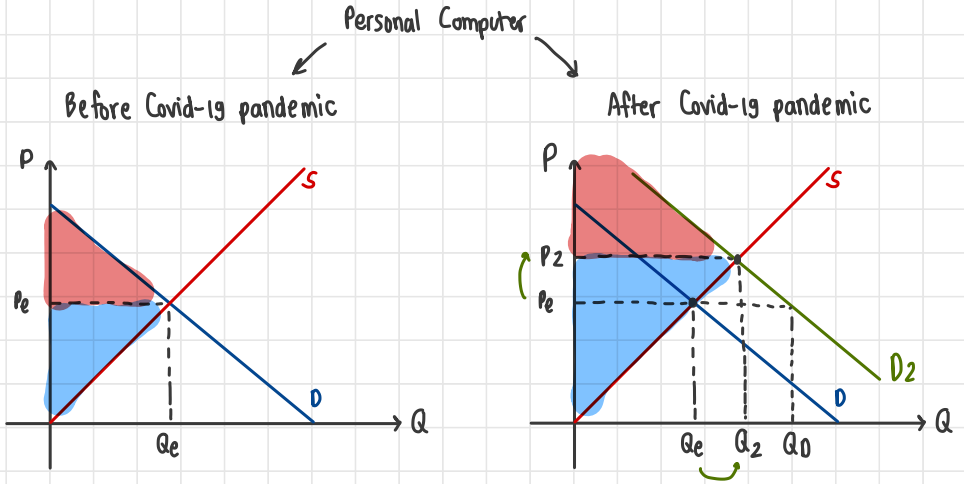
2.b)



From shifting demand line to right
⇒ Excess Demand → $Q_D > Q_e$
when demand increased, its increase
both price and quantity

∴ new equilibrium price and
quantity increased

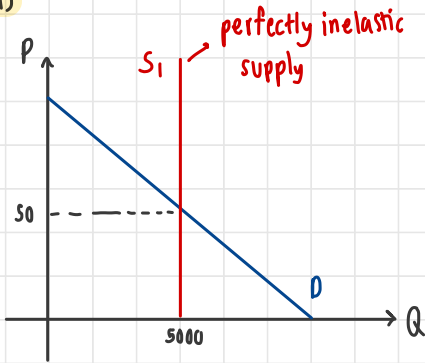
2.C



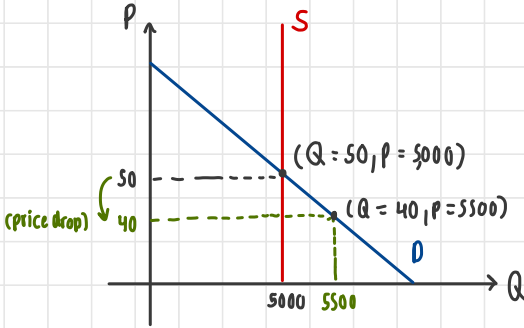
consumer surplus (CS)

producer surplus (PS)

3.a)



3.b



Price elasticity demand

$$\begin{aligned} \Rightarrow \frac{\Delta Q}{\Delta P} \cdot \frac{P}{Q} &= \frac{Q_2 - Q_1}{P_2 - P_1} \cdot \frac{P_1}{Q_1} \\ &= \frac{5000 - 5500}{50 - 40} \cdot \frac{50}{5000} = -0.5\% \end{aligned}$$

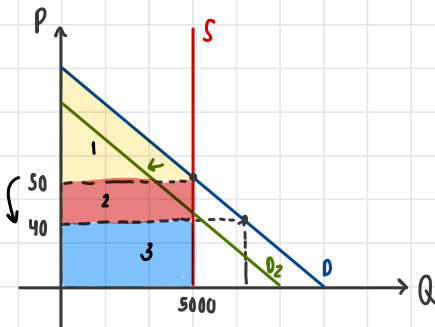
\therefore Price \uparrow 1% $Q_d \downarrow$ 0.5% or Price \downarrow 1% $Q_d \uparrow$ 0.5%

Price elasticity of Supply

$$\begin{aligned} \Rightarrow \frac{\Delta Q}{\Delta P} \cdot \frac{P}{Q} &= \frac{Q_2 - Q_1}{P_2 - P_1} \cdot \frac{P_1}{Q_1} \\ &= \frac{5000 - 5000}{50 - 40} \cdot \frac{50}{5000} = 0\% \end{aligned}$$

Answer is 0 because supply line is vertical so Q_2 and Q_1 is same number. So, price and quantity remain the same.

3.c)



Demand line shift leftward

Price \downarrow 40

$\bar{Q} = 5000$ because it remain the same

DWL = 0

Tax burden $\Rightarrow (50 - 40) 5000 = 50,000$