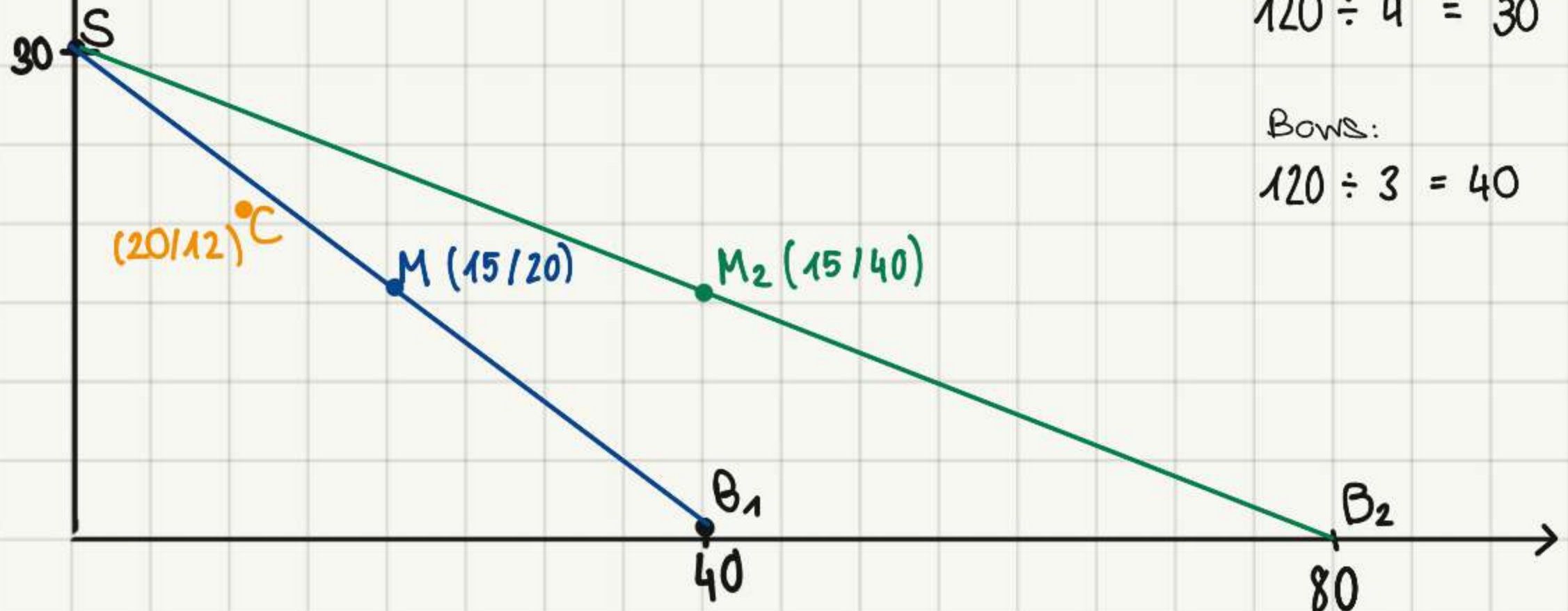


# Assignment 1 - Cinnamon Ernst 6406930039

## 1. Exercise

### 1a PPC

Number of spears



$$\text{spears: } 120 \div 4 = 30$$

$$\text{Bows: } 120 \div 3 = 40$$

### 1b $B_1 \rightarrow M$

$$\begin{array}{l} \text{give up } -20 \text{ bows} \\ \text{add on } +15 \text{ bows} \end{array} \left| \begin{array}{l} \times \text{ bow} \\ \div 1 \text{ spear} \end{array} \right. \Rightarrow \frac{1 \cdot 20}{15} = 1,3$$

The opportunity cost for one car is  $1,3$ .

1c Yes it is possible for this civilization to produce 20 spears and 12 bows as one can see in the graph looking at point C (20, 12). It's possible to produce at this point because it's underneath the PPC, nevertheless it is not efficient because there are some resources left. Only if the production is on the line all the resources are used.

### 1d $B_2 \rightarrow M_2$

$$\begin{array}{l} \text{give up } -40 \text{ bows} \\ \text{add on } +15 \text{ bows} \end{array} \left| \begin{array}{l} \times \text{ bow} \\ \div 1 \text{ spear} \end{array} \right. \Rightarrow \frac{1 \cdot 40}{15} = 2,67$$

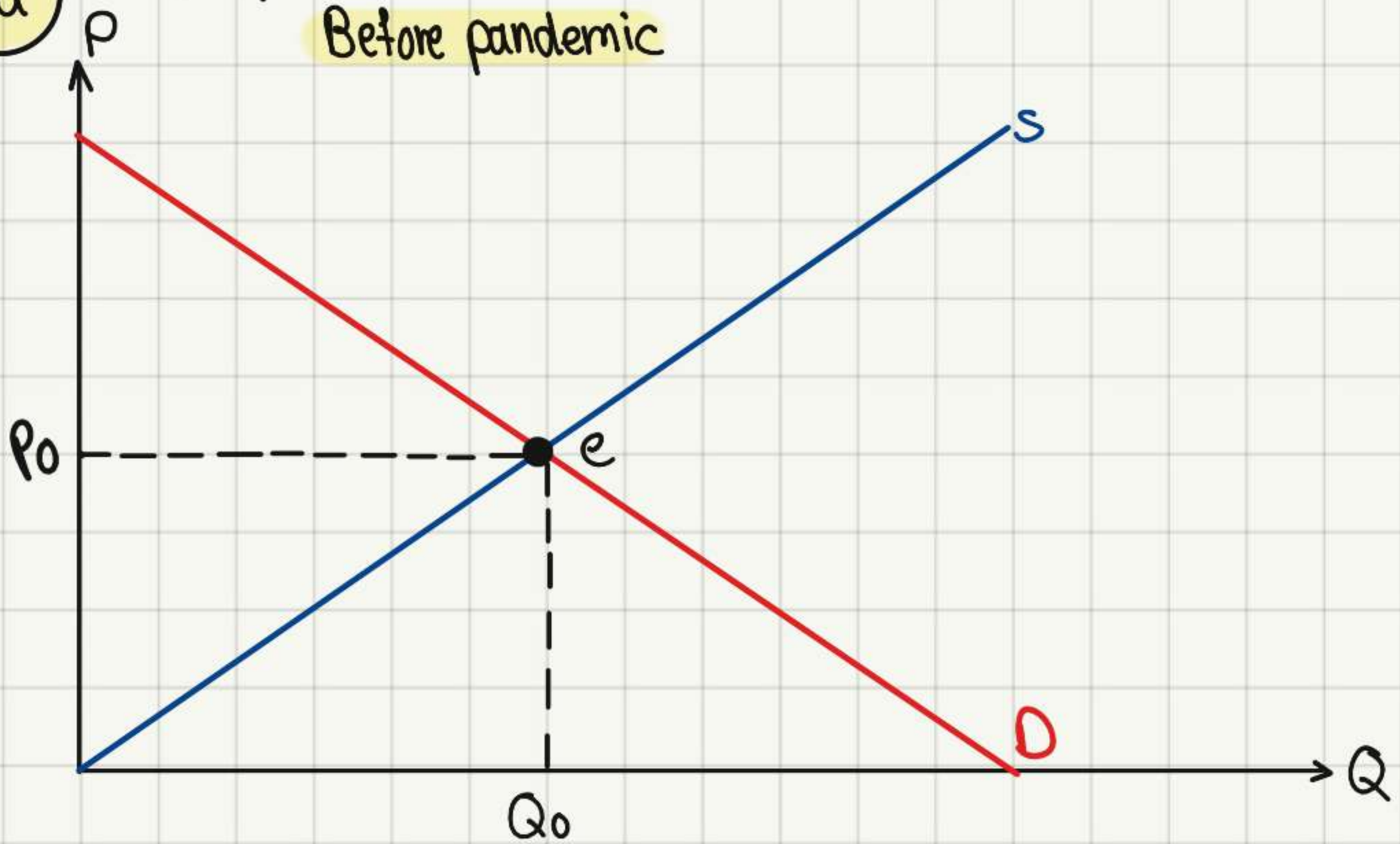
As one bow now only requires half the amount of wood than before the change the maximum amount of bows that can be produced doubled and also the opportunity costs doubled too.

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## 2. Exercise

2a

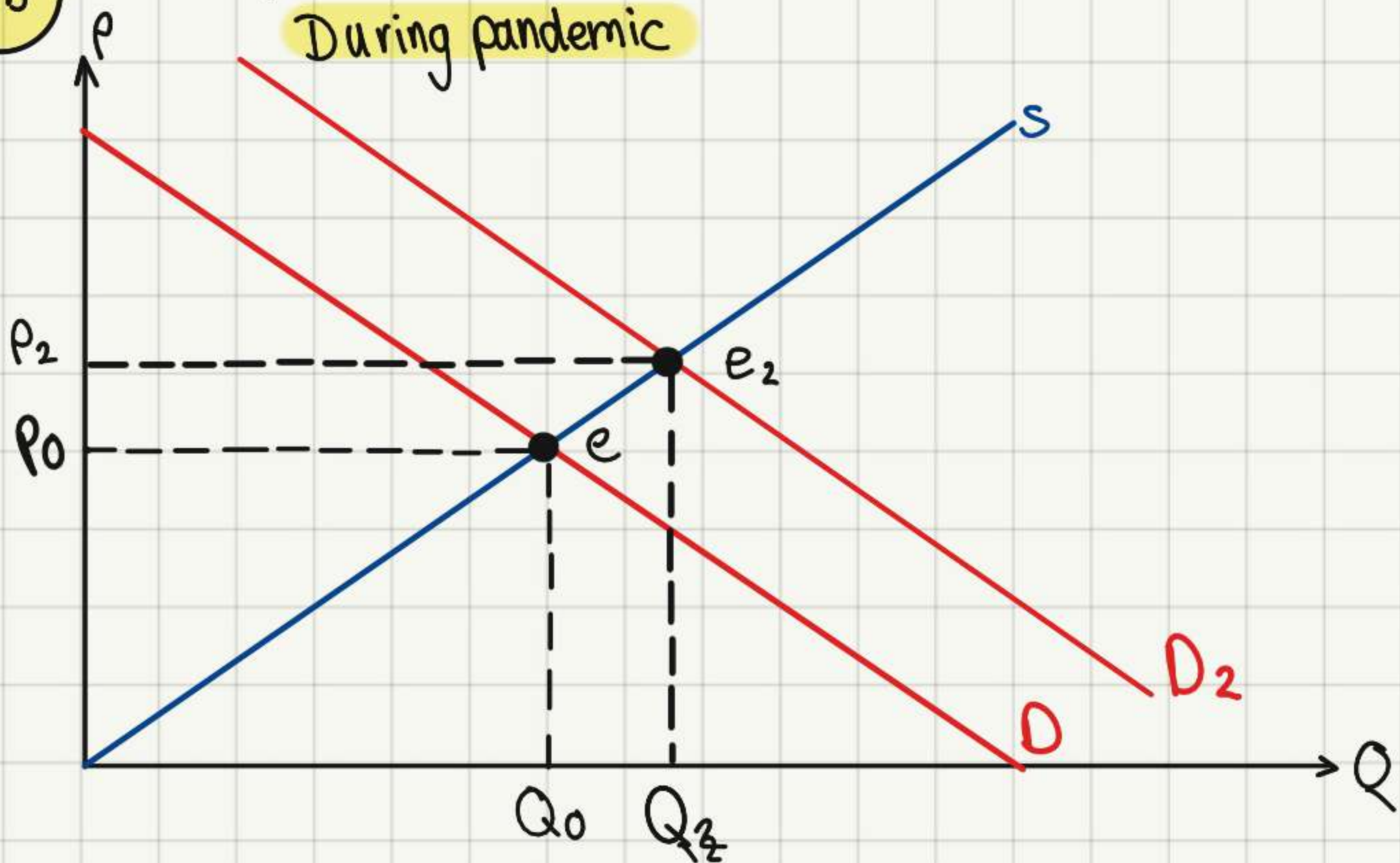
Computer devices market  
Before pandemic



The market demand changes because more people need computer devices as they are crucial to work from home. Therefore the demand curve is moving rightwards.

2b

Computer devices market  
During pandemic



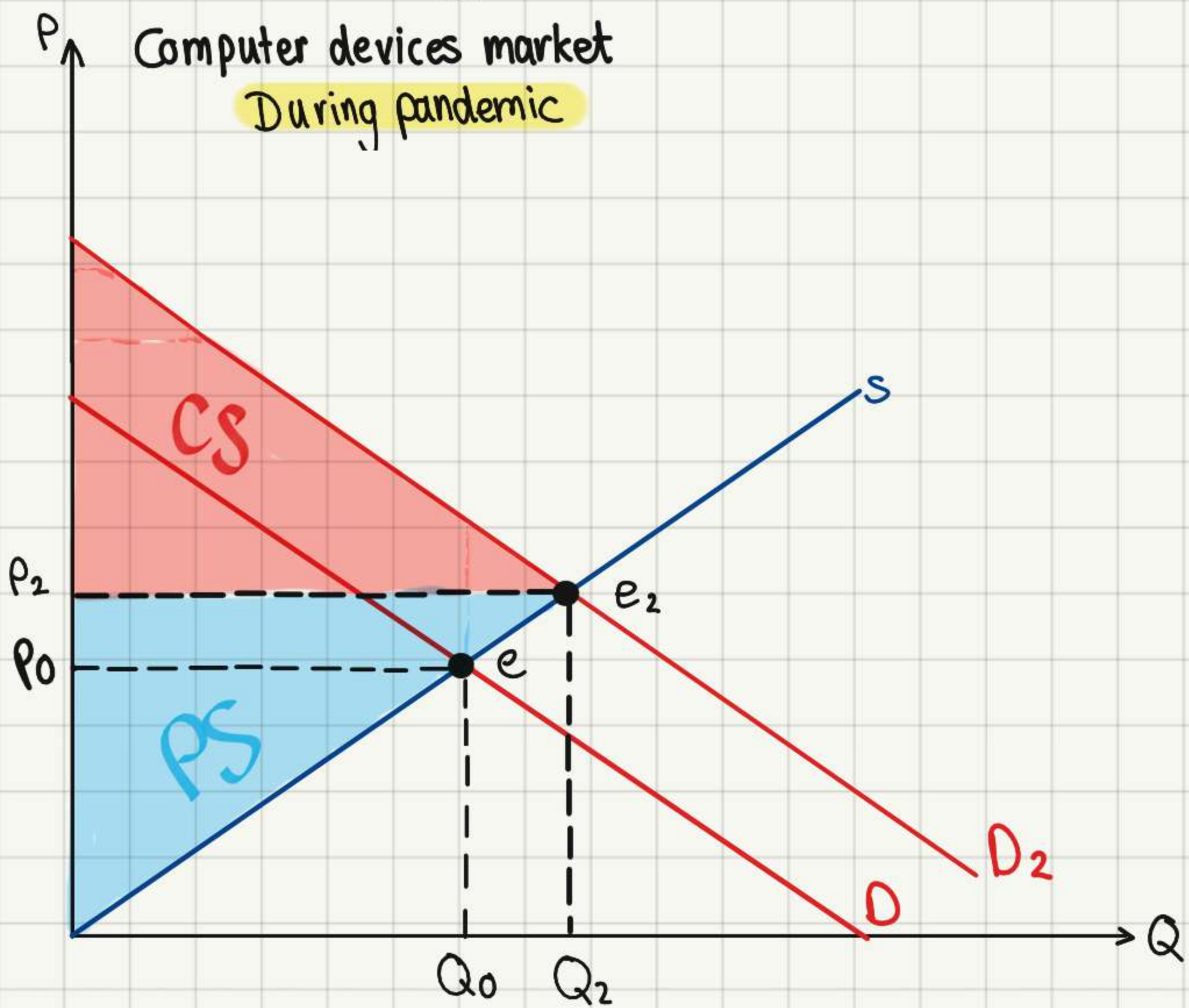
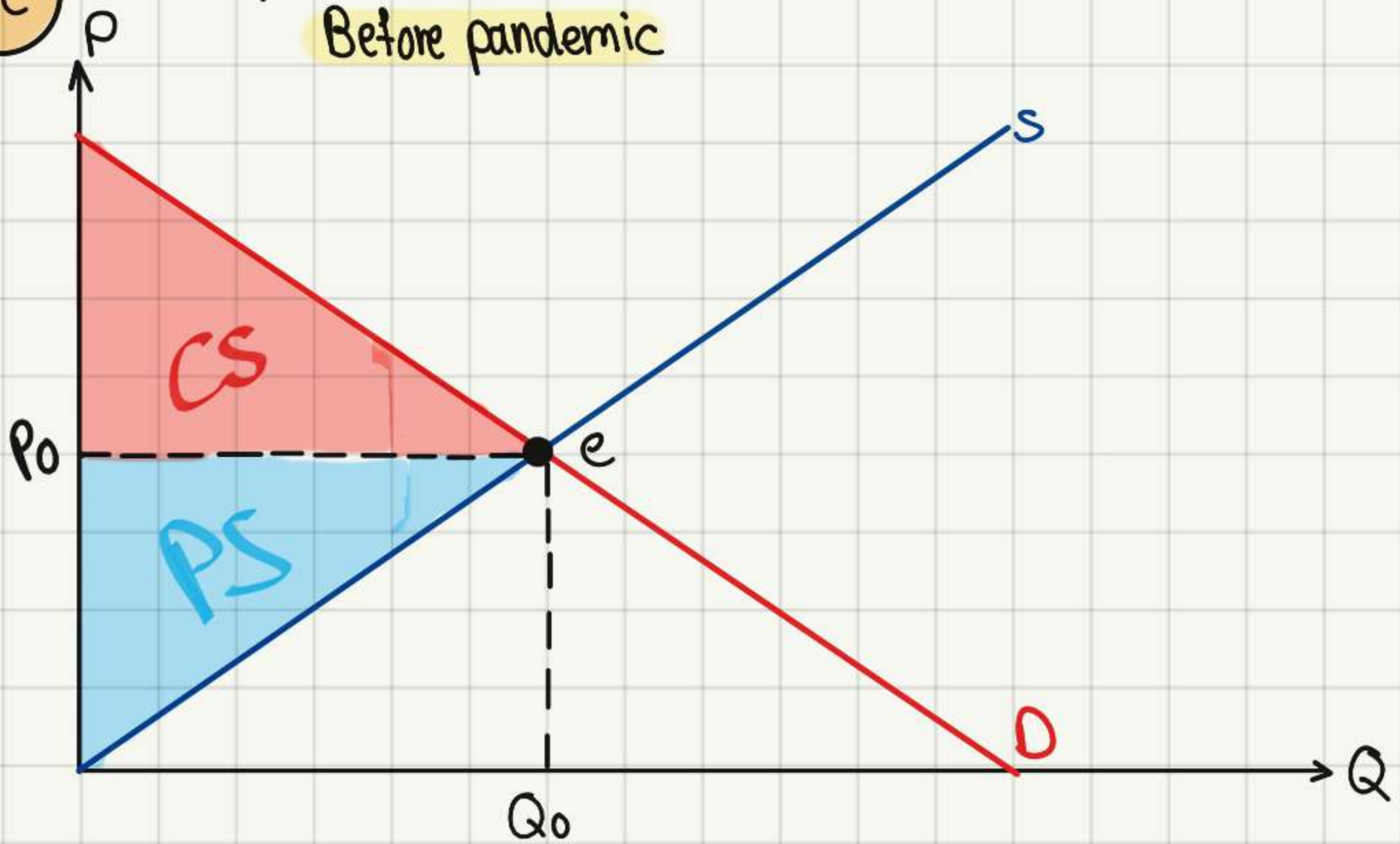
The pandemic causes the equilibrium price and quantity to increase due to the increased demand.

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## 2. Exercise

2c

Computer devices market  
Before pandemic

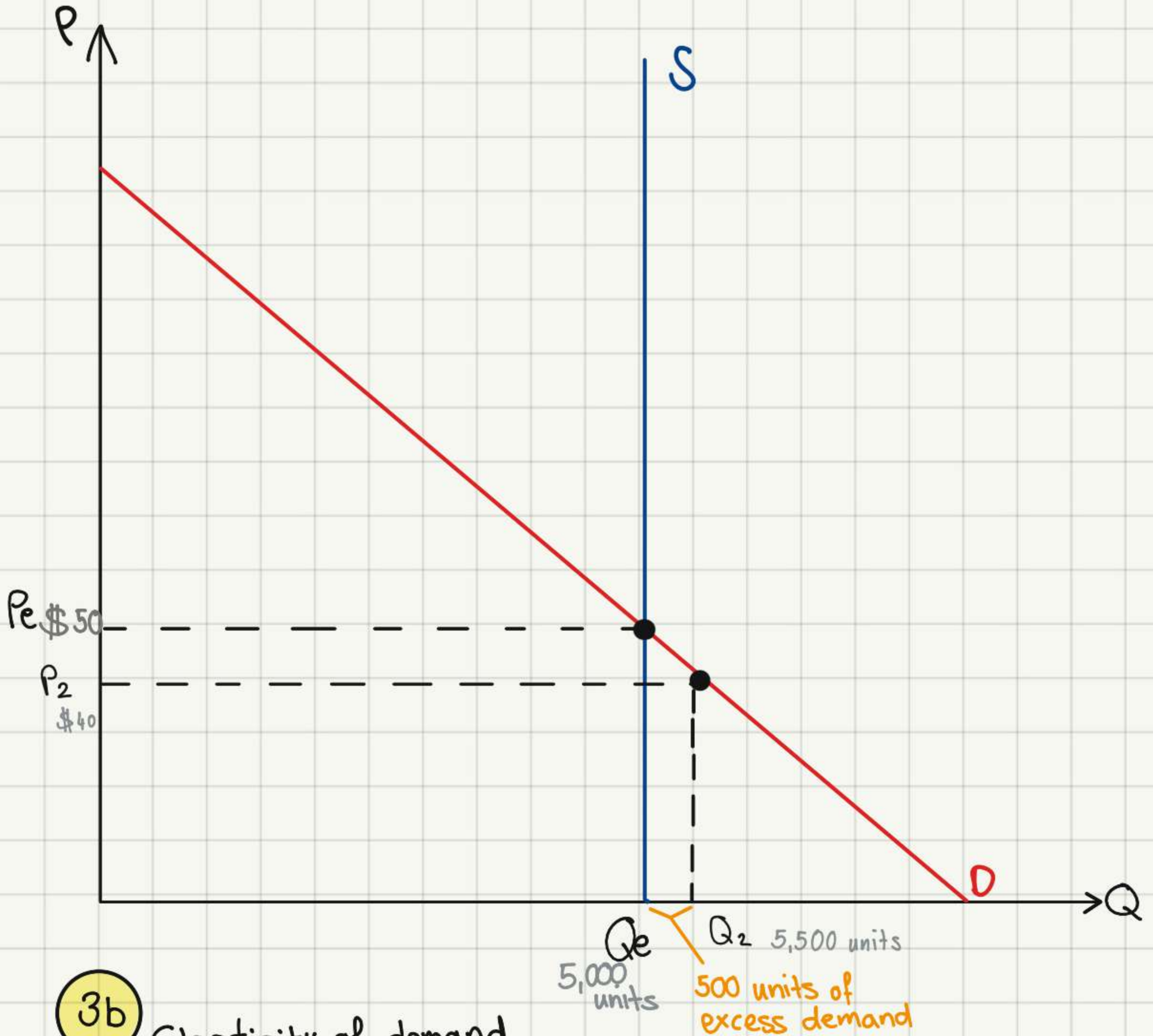


The Consumer- and Producer surplus during the pandemic both are still equally sized but are both bigger in size compared to the situation before the pandemic.

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## 3. Exercise

3a



3b Elasticity of demand

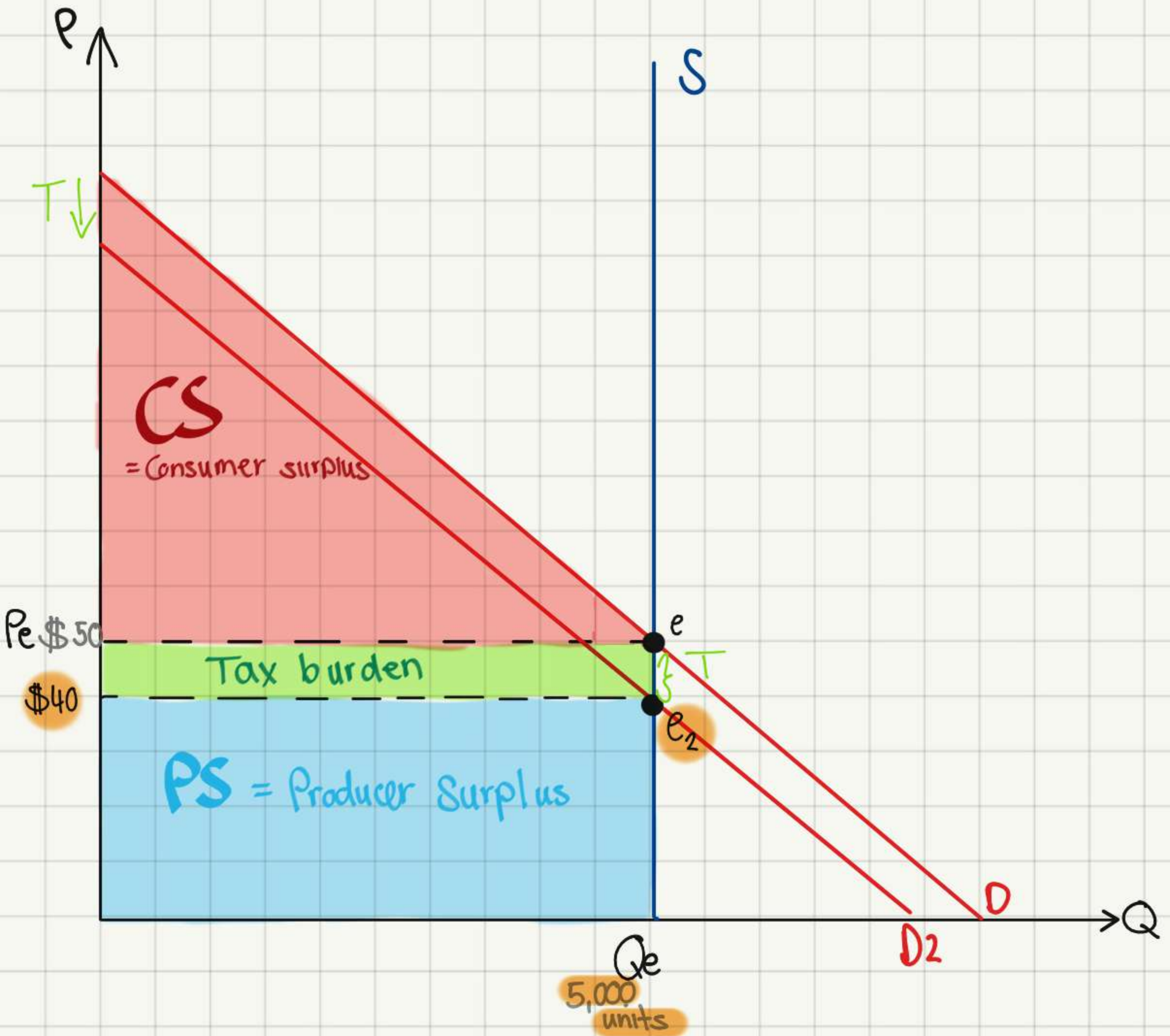
$$\begin{aligned} E_d(e) &= \frac{\Delta Q}{\Delta P} \cdot \frac{P}{Q} = \frac{Q_2 - Q_e}{P_2 - P_e} \\ &= \frac{5,500 - 5,000}{40 - 50} = \frac{500}{-10} = -50 \end{aligned}$$

Inelastic:  $|E_d| = |-50| = 50 < 1$

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## 3. Exercise

3c



- > The new equilibrium price is \$40, the equilibrium quantity stays the same with 5,000 units.
- > There is no DWL in this case, because all the burden can be put onto the producers.
- > The PS exists when we assume that sellers are willing to sell when  $P=0$  up to  $Q_e$ .