

HW#6 Due October 6, 2020

9. At Fenway Park, home of the Boston Red Sox, seating is limited to about 38,000. Hence, the number of tickets issued is fixed at that figure. Seeing a golden opportunity to raise revenue, the City of Boston levies a per ticket tax of \$5 to be paid by the ticket buyer. Boston sports fans, a famously civic-minded lot, dutifully send in the \$5 per ticket. Draw a well-labeled graph showing the impact of the tax. On whom does the tax burden fall—the team's owners, the fans, or both? Why?
10. A market is described by the following supply and demand curves:

$$Q^S = 2P$$

$$Q^D = 300 - P$$

$$240 = 300 - P$$

$$P = 60$$

- Solve for the equilibrium price and quantity.
- If the government imposes a price ceiling of \$90, does a shortage or surplus (or neither) develop? What are the price, quantity supplied, quantity demanded, and size of the shortage or surplus?
- If the government imposes a price floor of \$90, does a shortage or surplus (or neither) develop? What are the price, quantity supplied, quantity demanded, and size of the shortage or surplus?
- Instead of a price control, the government levies a tax on producers of \$30. As a result, the new supply curve is:

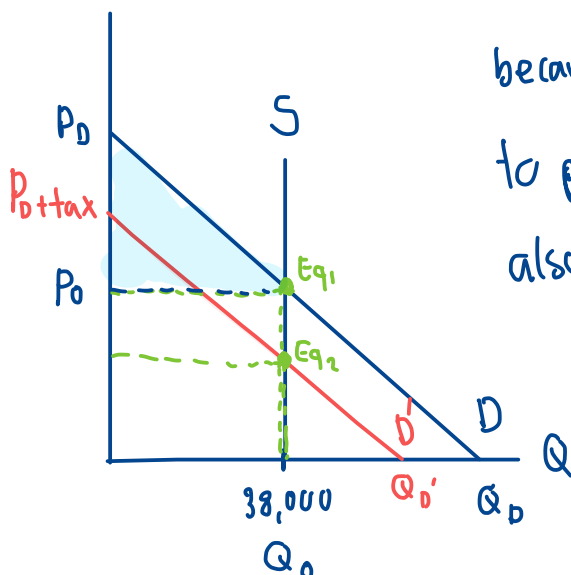
$$Q_S = 2(60 - 30)$$

$$Q_S = 60$$

$$Q^S = 2(P - 30).$$

Does a shortage or surplus (or neither) develop? What are the price, quantity supplied, quantity demanded, and size of the shortage or surplus?

9



buyer got impact

because the buyers is willing
to pay for ticket more than sellers.
also, they're civic minded

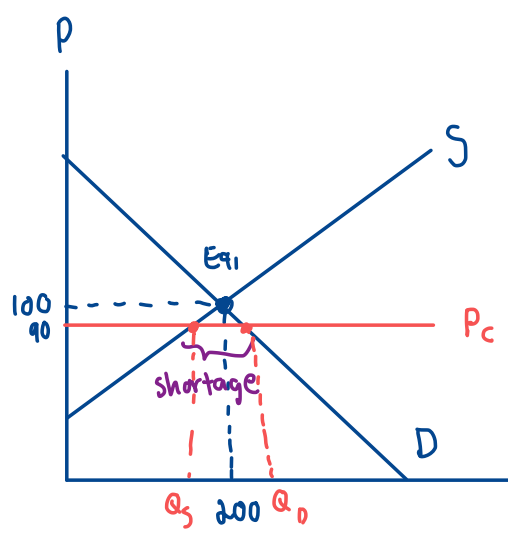
10.

a.

$$\begin{array}{l|l} Q_s = Q_D & Q = 200 \\ 2p = 300 - p & \\ 3p = 300 & \\ p = 100 & \end{array}$$

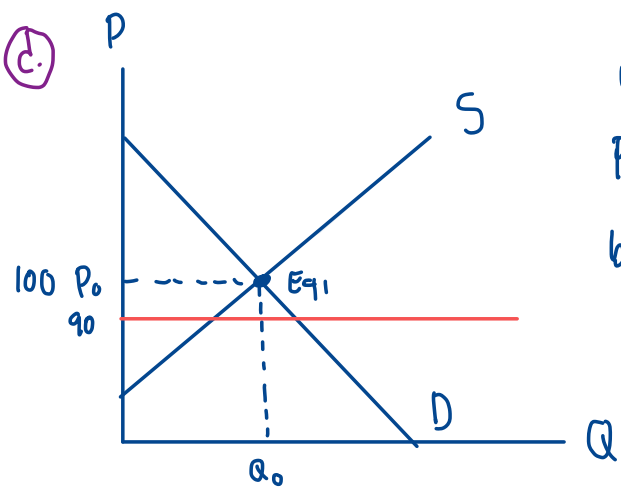
Equilibrium price is 100
Equilibrium Quantity is 200

b.



When the government imposes the price ceiling at 90, there is an excess demand or shortage. When the price falls, the quantity demand will increase and quantity supply will decrease due to the law of demand and supply.

c.



When the government imposes the price at 90, nothing happened because there's no shortage or surplus.

d.

$$\begin{array}{l} Q_s = 2p - 60 \\ x = 2y - 60 \\ 2y = x + 60 \\ y = \frac{1}{2}x + 30 \\ y = 0 + 30 \end{array}$$

price increases
quantity supplied decreases
quantity demanded increases
there's shortage
size is 60
 $Q_D - Q_S = 240 - 180 = 60$

$$\begin{array}{l} Q_D = 300 - 120 \\ = 180 \\ 2p - 60 = 300 - p \\ 3p = 360 \\ p = 120 \end{array}$$

