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:

$$Q^S = 2P$$
$$Q^D = 300 - P$$

a. Solve for the equilibrium price and quantity.

b. 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?

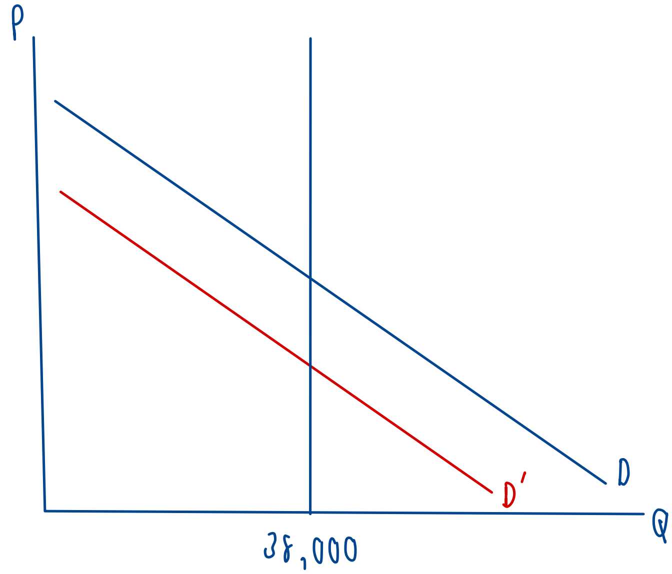
c. If the government imposes a price floor of $90, does a shortage or surplus (or neither) develop? What are the price, quantity supplied, quantity demanded, and size of the shortage or surplus?

d. Instead of a price control, the government levies a tax on producers of $30. As a result, the new supply curve is:

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

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

9.)



the tax will burden fall on buyers (the fans) because as you can see from the graph the ticket that sell at fixed amount which is 38,000, so if they let the buyers pay the tax the buyers have to pay no matter what.

10. a.) $Q^S = 2P$

$Q^D = 300 - P$

$Q_D = Q_S = Q_0$

$2P = 300 - P$

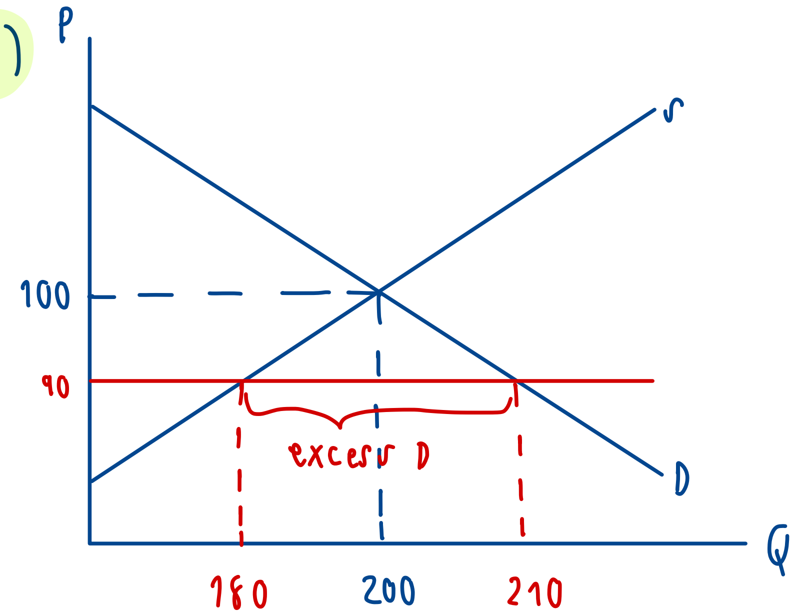
$3P = 300$

$P = 100$

Q = sub $P = 100$ into $2P$

$= 2(100) = 200$

$\therefore$ $\left.\begin{matrix} P = 100 \\ Q = 200 \end{matrix}\right\}$ price equilibrium b.)



- There will shortage due to excess demand

- Price = 90

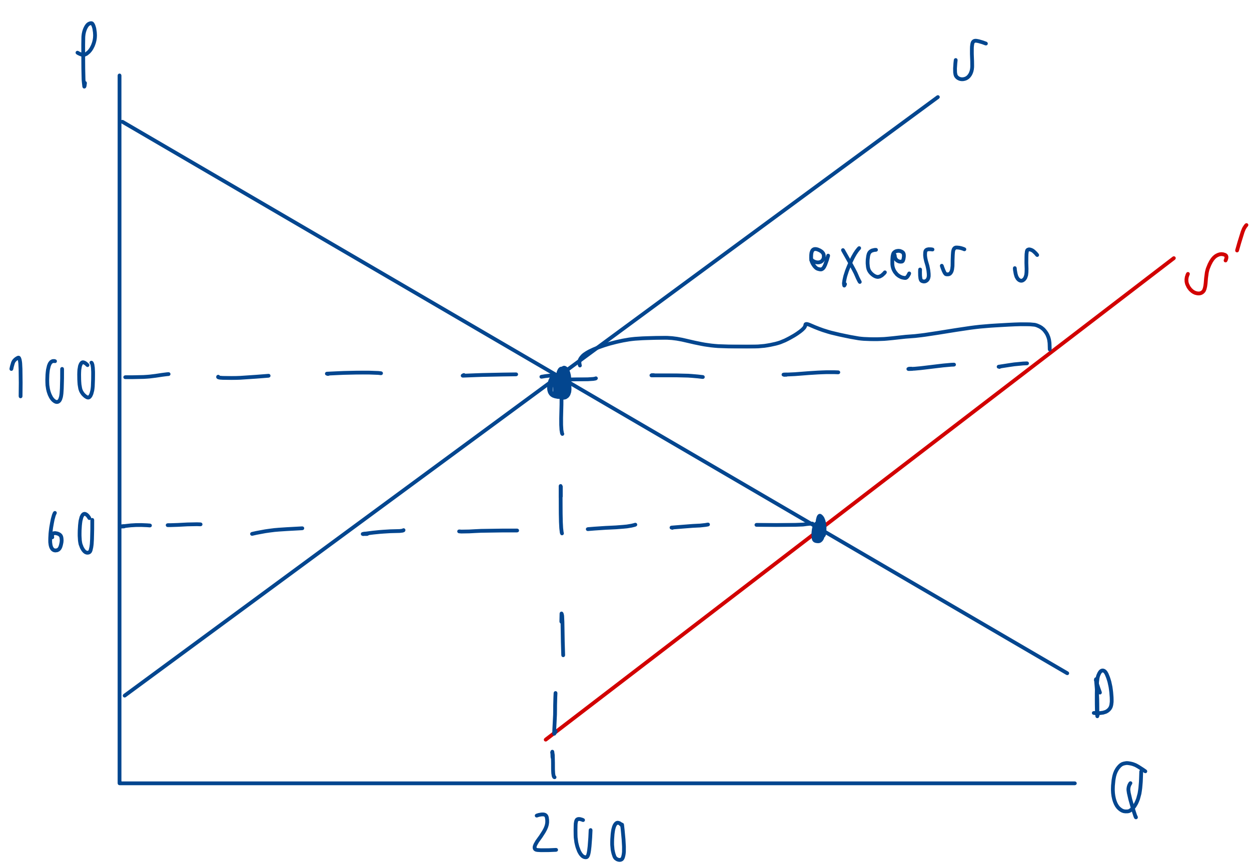
$Q_S = 2P$
$= 2(90)$
$= 180$

$Q_D = 300 - P$
$= 300 - 90$
$= 210$

size of shortage = $210 - 180 = 30$

c.) No, because the price that producer sells is more than the price floor and it will have new equilibrium.

d.)



$Q_S = 2P - 60$

- There will be a shortage

tax = 30

$Q_S = 2P - 60$

- $2P - 60 = 300 - P$

- $P = 70$

$Q_S = 2(70) - 60$

- $Q_S = 80$

$Q_D = 230$

- Surplus = $230 - 80 = 150$