Poon Arunrattanadilok

6304641183

HW#6 Due March 4, 2021

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?

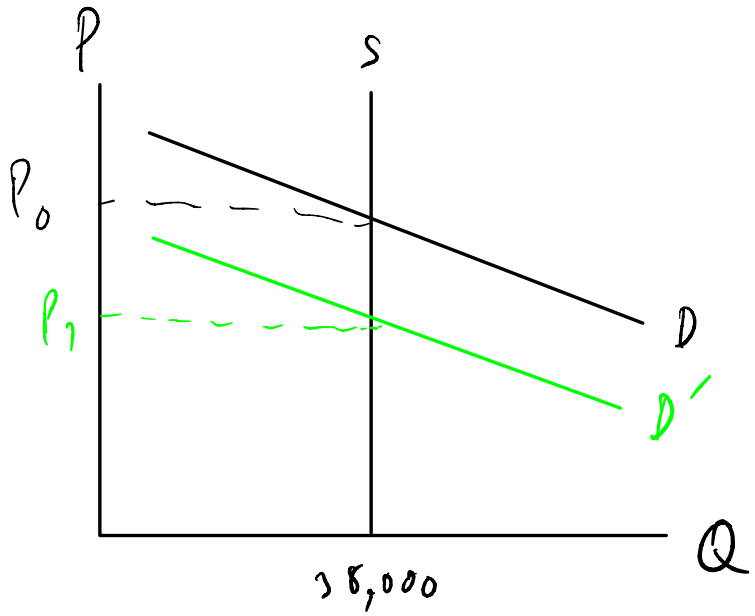
   c. If the government imposes a price floor of $90, does a shortage or surplus (or neither) develop? What are the price, quantity supplied, quantity demanded, and size of the shortage or surplus?

   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.



It is an extreme case that supply is perfectly inelastic, so the tax burden will fall on the team's owner. The team's owner cannot increase the price of ticket and the price of ticket will fall by 5 dollars.

10. a.) Supply $= Q_s = 2P$

Demand $= Q_D = 300 - P$

Equilibrium (Q_0, P_0)

$Q_s = Q_D$

$2P = 300 - P$

$3P = 300$

$P_0 = 100$

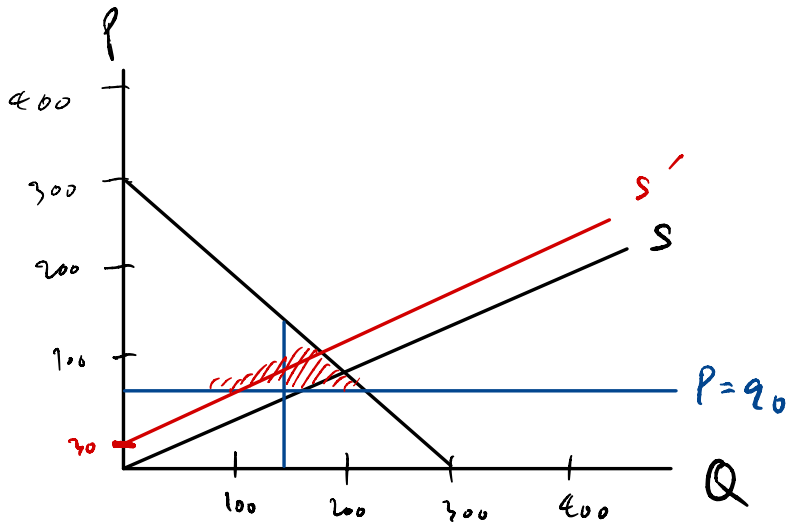
Substitute P_0 in Demand or Supply equation

$Q_s = 2P$

$Q_0 = 2(100) = 200$

∴ Equilibrium Price = 100
Equilibrium Quantity = 200

b.)



c.) At P = q_0

$Q_D > Q_S$ so there is a shortage because of excess demand.

- Market price = q_0 dollars
- Quantity supplied = $(q_0)(2)$ = 180
- Quantity demanded = 300 − q_0 = 210
- Size of shortage = $Q_D - Q_S$ = 210 − 180 = 30

d.) New Q_S = 2P − 60

The shortage develop

- Market price = q_0 dollars.
- Quantity supply = 180 − 60 = 120
- Quantity demand = 300 − q_0 = 210
- Size of shortage = 210 − 210 = 90