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?

Pawit Sawaengsat

6304640995

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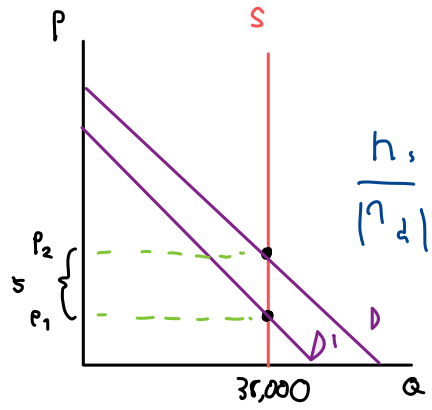

$\frac{n_s}{|n_d|} = 0$ → seller take 100% of burden

The supply curve is inelastic, because it show us that the supply for sant can't be change at any price. That mean supplier need to be responsible on tax burden, supplier musot reduce to sell the ticket

10a

$Q^S = 2P$

$Q^D = 300 - P$

↓

$Q^S = Q^D$

$2P = 300 - P$

$P = 100 \rightarrow Q_E = 200$

Ans : $P = 100\$, Q_E = 200$

10b

The Maximum price will be at 90$

- Quantity supplied 180 units
- Quantity demanded 210 units
- QD > QS → shortage develop
- shortage size = 210 - 180 = 30 units

10 C

Price minimum at 90 $

because the equilibrium price is equal to 100 $, 90 will be under the equilibrium point. So at 90$ is not effective so the mechanism will continuedly. But in the end both quantity and price will be at 200 units and 100 $.

= Price = 100 $ Both would develop

$Q_D, Q_S = 200$ units

10d

$P = 100$ $

$Q_D = 300 - P = 300 - 100 = 200$

$Q_S = 2P - 60 = 200 - 60 = 140$ } 60 units

it is shortage 60 units

equilibrium price, $2p - 60 = 300 - p \rightarrow p = 120$$

equilibrium quantity = $2p = 2(120) = 240$

$P_E = 120$$, $Q_E = 240$ units , shortage size = 60 units