

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:

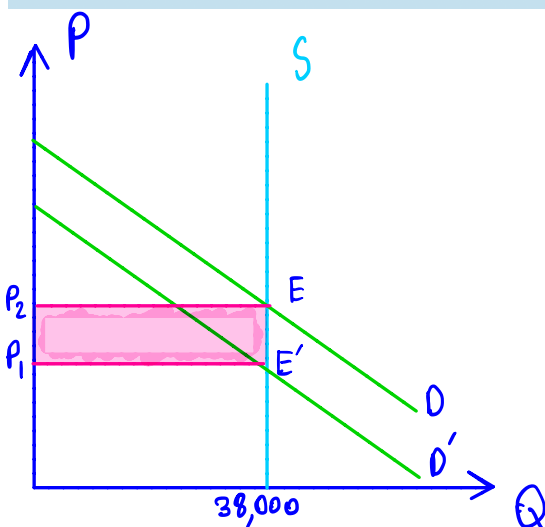
$$Q^S = 2P$$

$$Q^D = 300 - P$$

- 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:

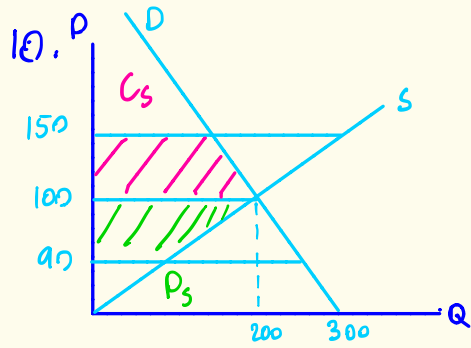
$$Q^S = 2(P - 30).$$

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



$$\frac{\eta_s}{|\eta_d|} = \frac{\text{burden on buyer}}{\text{burden on seller}} = 0 \quad \left. \vphantom{\frac{\eta_s}{|\eta_d|}} \right\} \text{seller take 100\% of burden}$$

From the graph, the supply is absolute inelastic. The change of price wouldn't effect supply of seat. The supplier should reduce the price to sell the ticket.



a) $Q_s = 2P \Rightarrow \text{Equili} = Q_s = Q_d$

$$Q_d = 300 - P$$

$$2P = 300 - P$$

$$3P = 300$$

$$P = 100$$

$P = 100, Q_E = 200$ *

b) $P = 90$

- $Q_d = 300 - 90 = 210$
- $Q_s = 2(90) = 180$
- $210 > 180, Q_d > Q_s \Rightarrow \text{shortage develop}$
- Size of shortage = $210 - 180 = 30$

c) ไม่เข้าใจ โจทย์อะครับ มันคล้ายข้อ b มาก

$$D) \text{ shortage size } \Rightarrow Q_0 = 300 - 100 = 200 \text{ units}$$

$$Q_s = 2(100) - 60 = 140 \text{ units}$$

$$= 60 \text{ units}$$

$$E_p = 2p - 60 = 300 - p$$

$$p = \$120$$

$$E_Q = 2(120) = \$240$$