HW#6 Due October 6, 2020

มีตัวเท่ากัน

seat

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?

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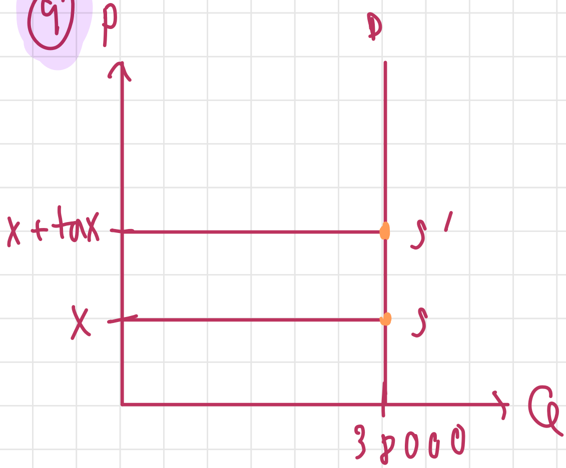


Tax burden falls on buyers because supply is more elastic than demand. It means buyers are willing to pay more due to tax and sellers don't have to anything.

10 $Q_S = 2P$

$Q_D = 300 - P$

a) find equilibrium price

from $Q_S = Q_D$

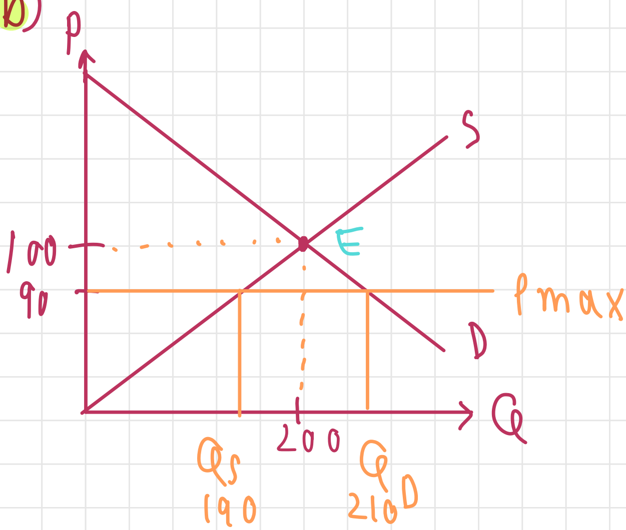
$2P = 300 - P$

$P = 100$

solve for Q

$2(100) = 200 = Q$ equilibrium

b)



price ceiling at 90$

$Q_S = 2P$

$Q_D = 300 - P$

Does a shortage or surplus ?

Ans: shortage supply contribute to excess demand.

What is the price ?

Ans: 90 $

What is the quantify supplied ?

Ans: from $Q_S = 2P$

$Q_S = 2(90)$

$Q_S = 180$ //

What is the quantity demanded?

Ans: from $Q_D = 300 - P$

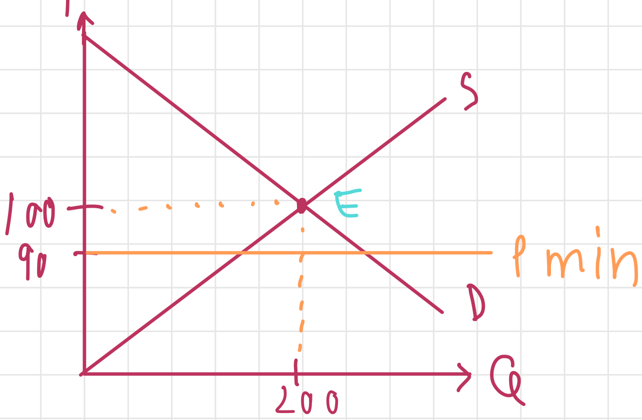
$Q_D = 300 - 90$

$Q_D = 210$ //

What is the size of shortage?

Ans: $210 - 180 = 30$ //

c)



price floor at 90$

$Q_S = 2P$

$Q_D = 300 - P$

Does a shortage or surplus?

Ans: No

What is the price?

Ans: 100 $

What is the quantify supplied?

Ans: 100

What is the quantify demanded?

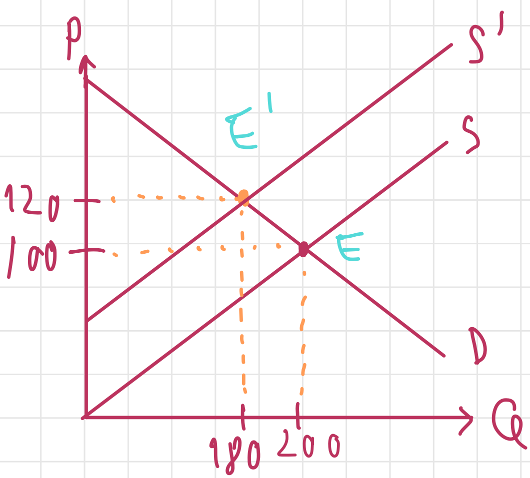
Ans: 200

What is size of shortage / surplus?

Ans: $Q_D = Q_S = 0$ //

D) tax on producer $\xrightarrow{30\$}$ new curve

$Q_S = 2(P-30)$, $Q_D = 300 - P$



find new E.Q. price

$Qs = QD$

$2P - 60 = 300 - P$

$3P = 360$

$P = 120$

find new Quantity demanded?

$Q_D = 300 - P$

$Q_D = 300 - 120$

$Q_D = 180$

Does a shortage or surplus?

Ans: excess demand.

What is the price?

Ans: 120 \$

What is the quantify supplied?

Ans: 180 \$

What is the quantify demanded?

Ans: 200 \$

What is size of shortage / surplus?

Ans: shortage → $200 - 180 = \underline{20}$