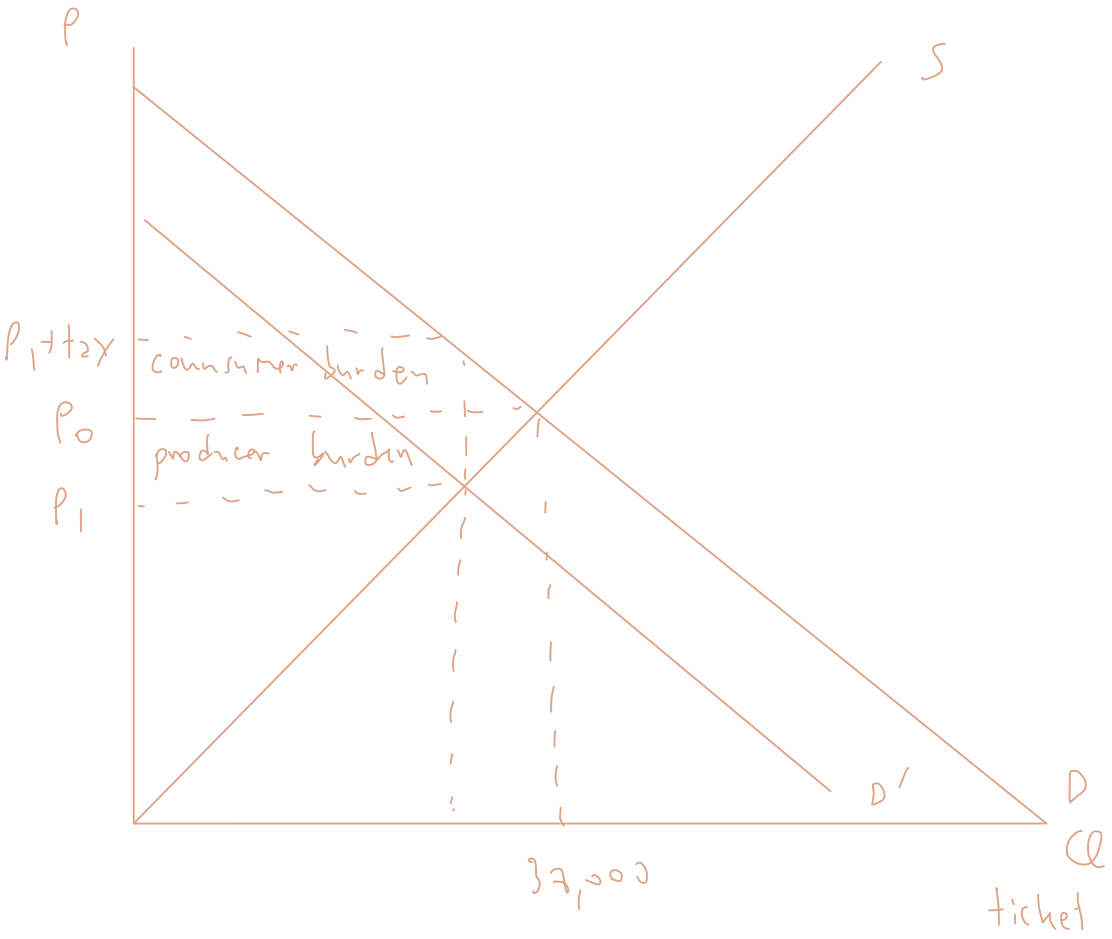
9. At Fenway Park, home of the Boston Red Sox, seating is limited to about 38,000. Hence, the number of tickets issued is fixed at that figure. Seeing a golden opportunity to raise revenue, the City of Boston levies a per ticket tax of $5 to be paid by the ticket buyer. Boston sports fans, a famously 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?



HW#6 Due October 6, 2020

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10. A market is described by the following supply and demand curves:

$$Q^S = 2P \qquad P = \frac{1}{2}Q^S$$
$$Q^D = 300 - P \qquad P = 300 - Q^D$$

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?

(10) 2)

$Q_S = Q_D = Q_0$

$2P = 300 - P$

$3P = 300$

$P = 100 \longrightarrow Q_0 = 2P$

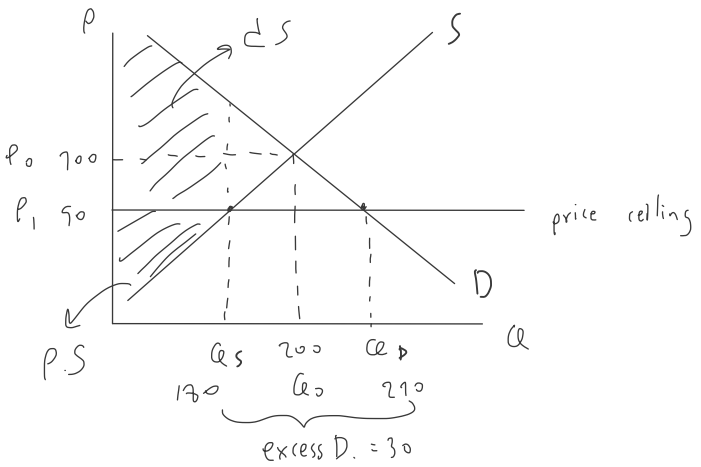
$= 2(100)$

$= 200$

$\therefore (Q_0, P_0) = (200, 100)$

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?

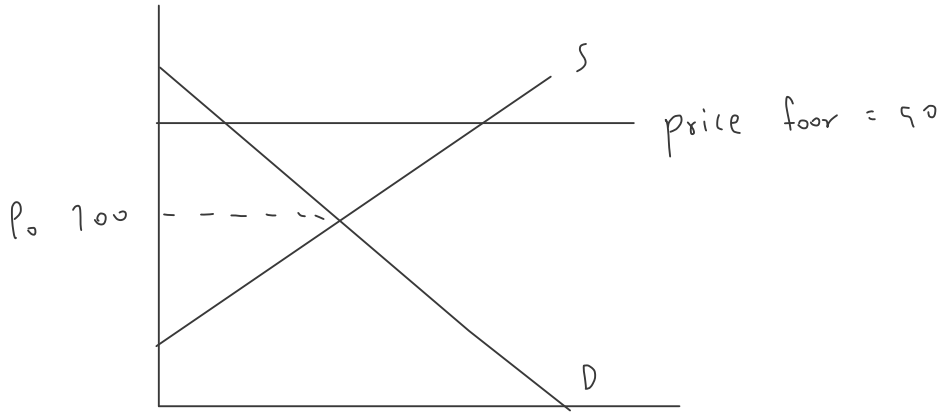


$P = 90$;

$P = \frac{1}{2} Q_S \rightarrow Q_S = 180$

$P = 700 - Q_D \rightarrow Q_D = 210$

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?

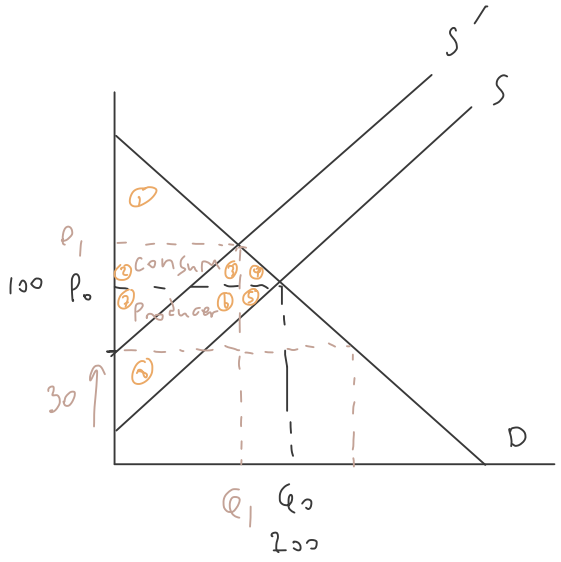


nothing change due to the fact that the minimum price that government set is higher than market price so it will not effect anything.

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?



$$Q^S = 2P - 60$$

$$2P = Q^S + 60$$

$$P = \frac{1}{2}Q^S + 30$$

In conclution, price increase from P_0 to P_1 But at new quantity demand and supply which is the new equilibrium point because At P_1 it satisfice the equlibrium condition that $Q_S = Q_D$ decrease from Q_0 to Q_1. As for C.S and P.S was changed after government added tax, as shown in the table below

In conclution, Price increase from P_0 to P_0 But

	Before	after	change
C.S	① + ② + ③ + ④	①	−(② + ③ + ④)
P.S	⑤ + ⑥ + ⑦ + ⑧	⑧	−(⑥ + ⑦ + ⑤)

⑤ → govt revenue

② + ⑦ → DWL