

Answer on Question #86181, Economics / Microeconomics

Given demand and supply as $Q_d=200-50p$,
 $Q_s=40+30p$ respectively, the equilibrium price and quantity can be gotten as follows.

1. The equilibrium point is where demand means supply

Equate the functions

$$200-50p = 40+30p$$

Therefore, $160 = 80p$

Solving for p, divide 160/80

$$P = 2.$$

Solve for the quantity by substituting p in the supply function

$$Q = 40 + 30(2) = 100.$$

The equilibrium price and quantity is 2 and 100 respectively.

2. If 5% tax is imposed on consumers and firms, the supply curve will shift upwards because the price will have to be higher for the producer to produce the number of units he/she used to. At the same time, due to the tax burden on consumers, the demand curve will shift to the left. The new equilibrium point will be lower.

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