## Answer on Question \#73425 -Economics - Macroeconomics

Suppose the demand for Frisbees is given by $Q=100-2 p$ and the supply by $Q=20+6 p$
a) what will be the equilibrium price and quantities for Frisbees?
b) suppose the government levies a tax of rs:4 per Frisbee. Now what will the equilibrium quantity the price consumers will pay \& the price firm will receive?
c) how would your answer to part a \&b change if the supply were instead $Q=70+P$

Answer.
a) Equilibrium price and quantity is calculated from equation
$100-2 \mathrm{P}=20+6 \mathrm{P}$
$80=8 \mathrm{P}$
$P=10, Q=80$
b)

Implementing of tax shifts the supply curve in $\mathrm{rs}: 4$ upper. So, if previous equation was $\mathrm{P}=(\mathrm{Q}-$ $20) / 6$, new supply equation is $\mathrm{P}=(\mathrm{Q}-20) / 6+4$, or $(\mathrm{P}-4)^{*} 6=\mathrm{Q}-20, \mathrm{Q}=6 \mathrm{P}-4$

Then,
$100-2 \mathrm{P}=6 \mathrm{P}-4$
104=8P
$\mathrm{P}=13 \quad \mathrm{Q}=74$
Equilibrium quantity is 74 , the price that consumers will pay is rs13, the price that firm will receive is $13-4=9$.
c) $100-2 \mathrm{P}=70+\mathrm{P}$
$30=3 \mathrm{P}$
$P=10, Q=80$
And, implementing of tax shifts the supply curve in rs:4 upper. So, if previous equation was $\mathrm{P}=\mathrm{Q}-70$, new supply equation is $\mathrm{P}=\mathrm{Q}-70+4=\mathrm{Q}-66$, or $\mathrm{Q}=\mathrm{P}+66$

Then,
$100-2 \mathrm{P}=\mathrm{P}+66$
$34=3 \mathrm{P}$
$\mathrm{P}=11.3 \quad \mathrm{Q}=77$
Equilibrium quantity is 77 , the price that consumers will pay is rs 11.3 , the price that firm will receive is $11.33-4=7.33$.

Answer provided by https://www.AssignmentExpert.com

