6304641365

1) 2 consumers / 1 seller

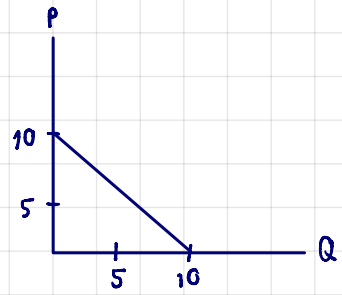
A: $Q_A = 10 - P$; $Q = P$

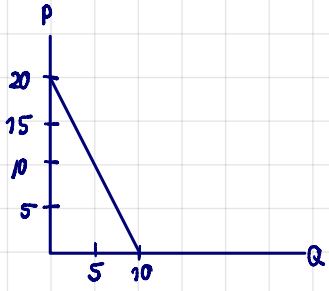
$P = 10 - Q$

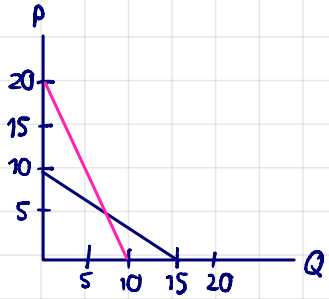
B: $Q_B = 10 - \frac{1}{2}P$

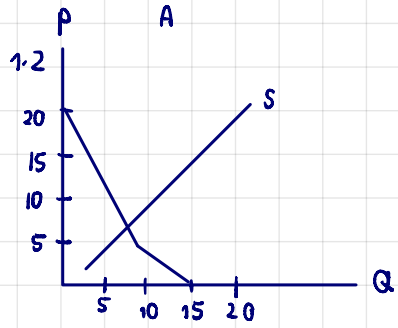
$P = 20 - 2Q$

1.1 draw interval Demand & market demand diagram









1 buyer in the market

Q^D_{mkt}

$10 - \frac{1}{2}P$; $P > 10$

$20 - \frac{3}{2}P$; $P \leq 10$

3j $Q^d = \frac{a-P}{b}$

$Q^s = \frac{P-c-t}{d}$

eqbm $P^s = P^d$

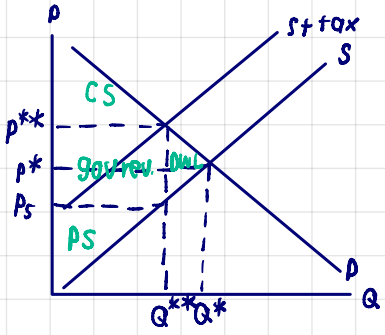
$c + dQ^s + t = a - bQ^d$

$Q(d+b) = a - c - t$

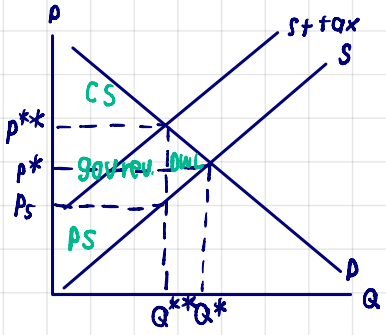
$Q^{**} = \frac{a-c-t}{d+b}$

$P^{**} = c + t + d\left[\frac{a-c-t}{d+b}\right]$

P_B =



P_B =



before tax: Consumer buy P^* (cheap)

seller can sell at high price (P^*)

After tax: consumer buy higher price at P^{**} (P_B)

producer will recieve less

extra price that consumers pay is = $(P_B - P^*) \times Q^{**}$

extra price that producer pay $(P_S - P^*) \times Q^{**}$

$\frac{\partial \text{tax rev}}{\partial T} = \left[\frac{a-c-t}{d-b}\right] \times t$

$= at - ct - t^2 + d^2t + b^{-1}t$

$0 = a - c - 2t - d - b$

$2t = a - c - d - b$

$t = \frac{a-c-d-b}{2}$

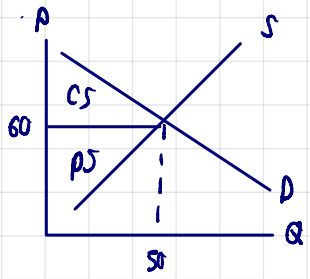
3.k eq bm : $P^S - P^d$

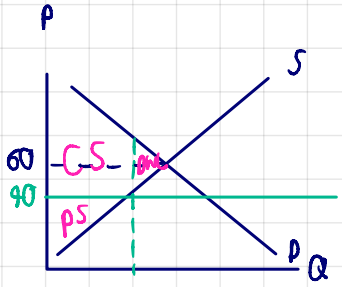
$Q^S + 10 = -2Q^d + 160$

$3Q = 150$

$Q = 50$

$P = 60$





annoucement of policy is decrease quantity of renting apartment by having a cheaper price people will demand more apartment

However the owner is not want to rent own room