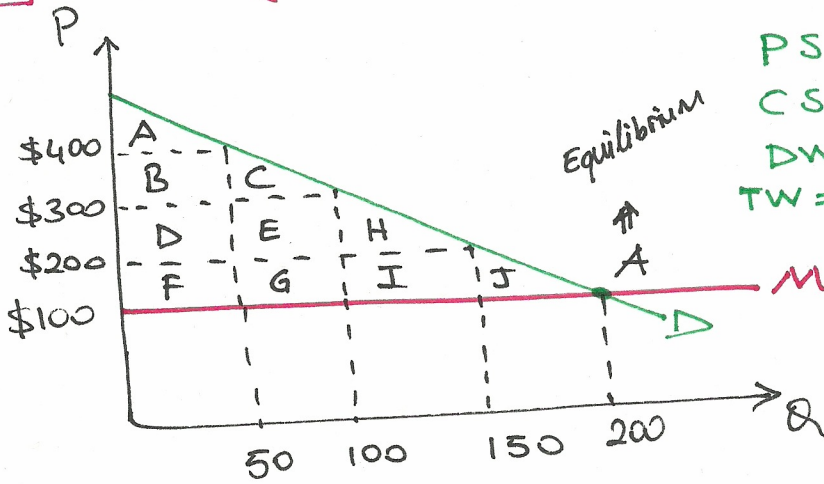# 1 Perfectly Competitive
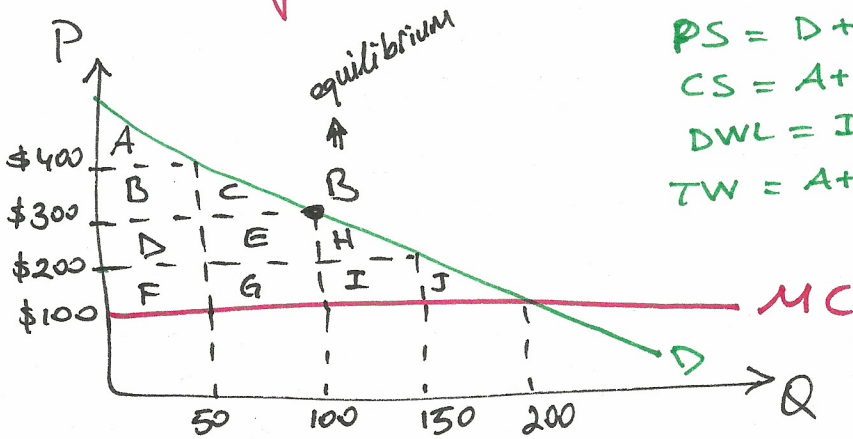

$PS = 0$

$CS = A+B+C+D+E+F+G+H+I+J$

$DWL = 0$

$TW = A+B+C+D+E+F+G+H+I+J$

↳ is supply in P.C markets.

Equilibrium Price = $100
Equilibrium Quantity = 200

2 Monopoly

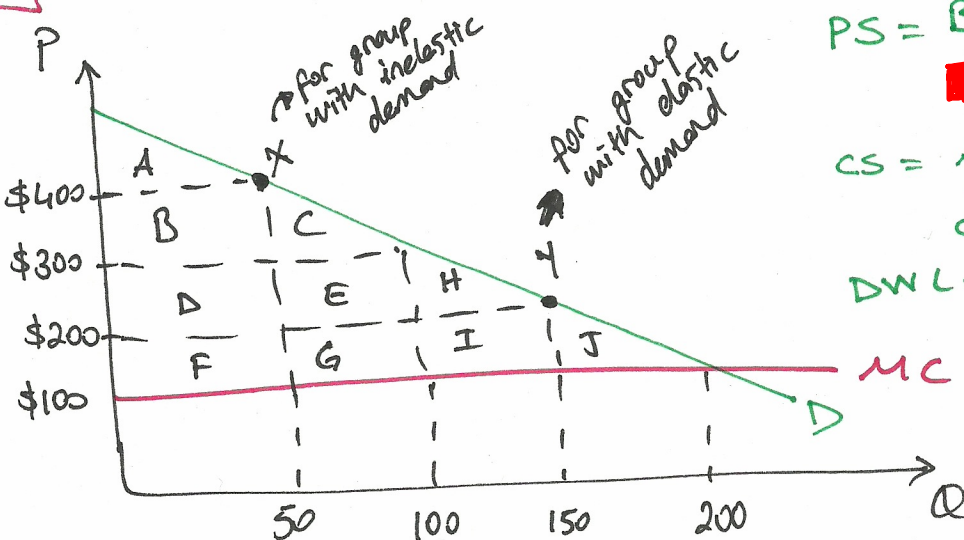$PS = D+E+F+G$ ↑ Compared to 1

$CS = A+B+C$ ↓ Compared to 1

$DWL = I+H+J$ ↑ Compared to 1

$TW = A+B+C+D+E+F+G$ ↓ Compared to 1

Equilibrium Price = $300
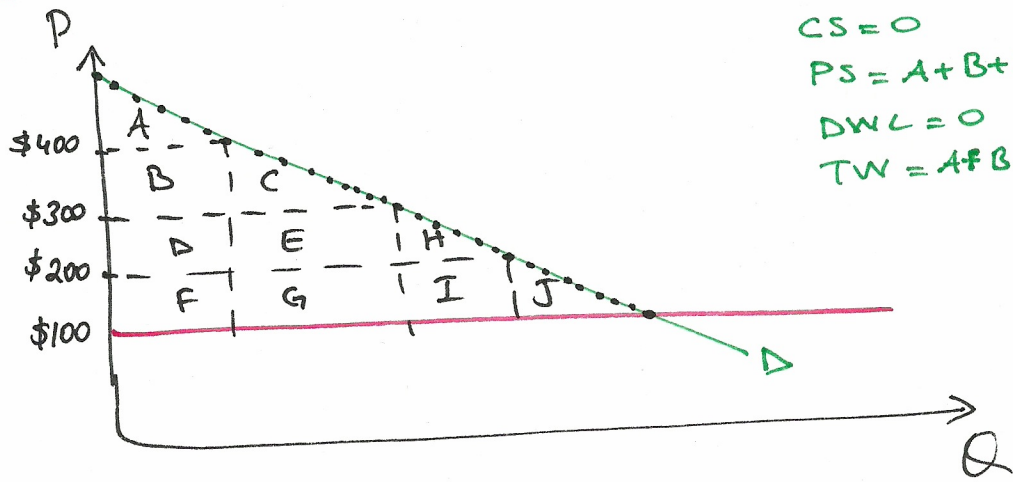Equilibrium Quantity = 100

3 Price Discrimination (Third-degree)

for group with inelastic demand

for group with elastic demand

$PS = B+D+F$ ⟹ from x
$+ G+I$ ⟹ from y ↑*

$CS = A$ ⟹ from x
$+ C+E+H$ ⟹ from y ↑*

$DWL = J$ ↓*

$TW = A+B+C+D+E+F+G+H+I$ ↑*

* compared to 2

Note that:
$B = D = E = F = G = I$

4 First-degree (Perfect) Discrimination

P

$400
$300
$200
$100

A
B | C
D | E | H
F | G | I | J

CS = 0
PS = A + B + C + D + E + F + G + H + I + J
DWL = 0
TW = A + B + C + D + E + F + G + H + I + J

D

Q