

Homework One: pg 64 #2, #5 pg 87 #1

[2] Cost exceeds willingness to Pay by the three. (a) Pareto fails both options. (b) Majority would vote no for A and yes for B, (c) Side payments would be too big to meet Pareto improvement.

[5]

Kayaking	K								
Dodos	D								
Hiking	H								
		Boris	Maggie	William					
	FIRST	H	D	K					
	SECOND	K	H	D					
	THIRD	D	K	H					
						K	D	H	
	K v D	K	D	K		2	1	-	K WINS
	D v H	H	D	D		-	2	1	D WINS
	K v H	H	H	K		1	-	2	H WINS

Page 87 #1

Demand  $Q = 50 - P$  or  $P = 50 - Q$ 

MC = 10

MEC = 15

MSC = 25

a) Competitive, ignore externality  $P = 10$   $Q = 40$ ,b) Monopoly  $Q = 20$ ,  $P = 30$ 

c) Competitive: CS = 800 PS = 0 TD = 15\*40 = 600 NET: 200  
 Monopoly CS = 200 PS = 400, TD = 300 NET: 200 + 400 - 300 = 300

**pg 110 #1**

Public good: sum demands vertically

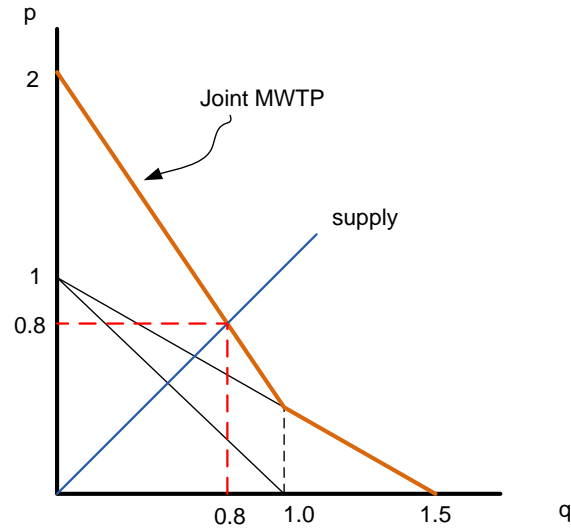
$$q_H = 1 - P \text{ and } q_M = 2 - 2P \text{ or}$$

$$p = 1 - q \text{ and } p = 1 - 1/2q$$

$$\text{Sum MWTP: } P = 2 - 1.5q$$

$$\text{MC: } P = q \text{ (supply)}$$

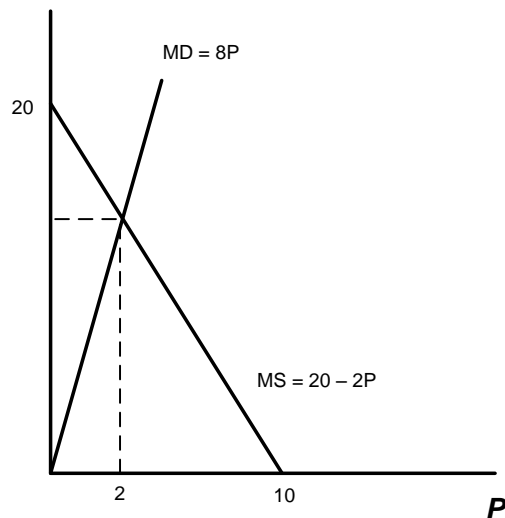
$$\text{Substitution: } P = 2 - 1.5P \Rightarrow 2.5P = 2, \Rightarrow P = 0.8 \text{ and } q = 0.8$$



#5,

(a)  $MD^T = 8P$

(b)



(c)  $P = 10, P^* = 2$

(d)  $MWTP^T = 80 - 8A$

$MC(A) = 2A$

(e)  $A^* = 8$

Q 6: If we aggregate (vertically) the Marginal Willingness to pay, the optimal amount of reduction is 5. If each region prices independent of the other, then OECD reduces 3 and the Rest reduce 1 for a total of 4

