ECON 460 Home Work 1 Answer Key (Kolstad Text)

Chapter 4 Question 2 (pg 87) Key

[graph with labeled points B, Z, E, R, Y, X, S, D, A on a utility possibility frontier; vertical axis "Brewster's U", horizontal axis "Anna's U"]
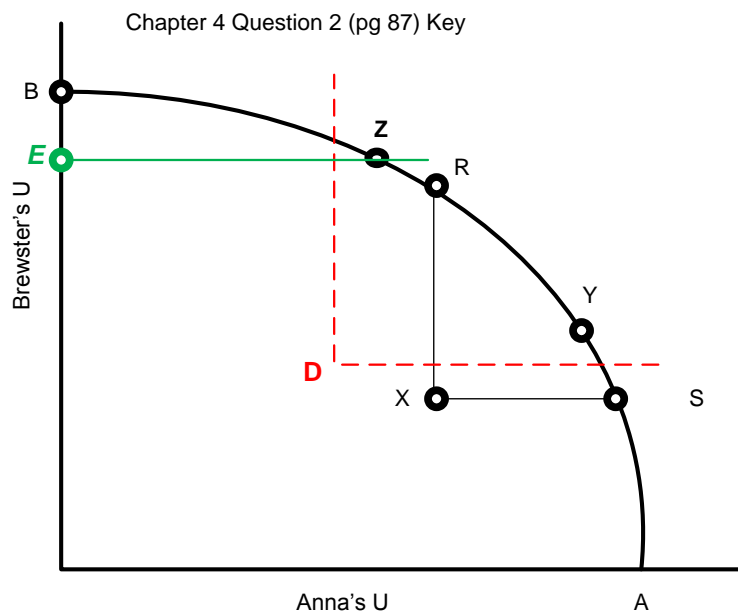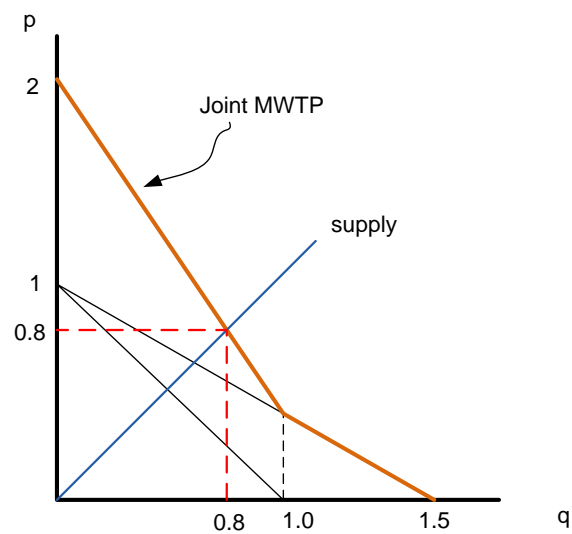
pg 110   #1
Public good: sum demands vertically
$qH = 1 - P$ and $qM = 2 - 2P$ or
$p = 1 - q$ and $p = 1 - 1/2q$
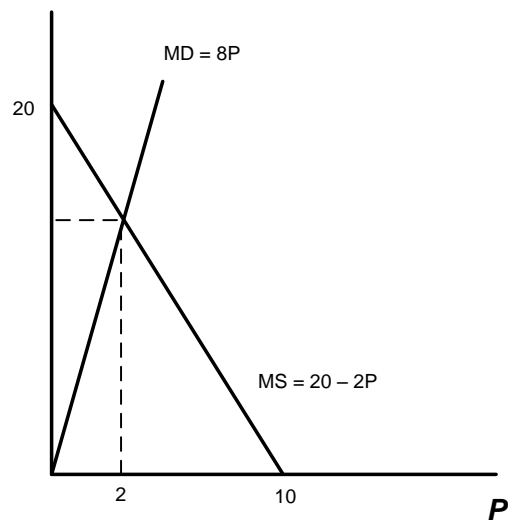Sum MWTP: $P = 2 - 1.5q$
MC: $P = q$ (supply)
Substitution: $P = 2 - 1.5P$ => $2.5P = 2$, => $P = 0.8$ and $q = 0.8$

[graph with vertical axis p (values 2, 1, 0.8), horizontal axis q (values 0.8, 1.0, 1.5); orange line labeled "Joint MWTP", blue line labeled "supply"]

Question #5,

(a) $MD^T = 8P$

(b)

(c) P = 10, P* = 2

(d) $MWTP^T = 80 - 8A$ MC(A) = 2A

(e) A* = 8