

ECON 267 Homework 2

Due in class on February 8, 2006

1. Part (a) (b) and (c) of Problem 3 on Page 109.

(Note: There is a typo in Part a. When $0 \leq P \leq 100$, $X = 250 - (3/2)P$.)

2. The following is the problem we discussed in class.

- Harry Potter volume sold in the United States and Europe
- Demand:
 - United States: $P_U = 36 - 4Q_U$
 - Europe: $P_E = 24 - 4Q_E$
- Marginal cost constant in each market
 - $MC = \$4$

We have concluded,

- (1) If the same price is charged in both markets, the aggregate demand function would be

$$P = 36 - 4Q \text{ for } Q \leq 3$$

$$P = 30 - 2Q \text{ for } Q > 3$$

The price charged in the two markets is \$17 and the aggregate quantity sold in the two markets is 6.5.

- (2) If different prices are charged in the two markets, the market outcome is $Q_U = 4$ and $P_U = \$20$ for the United States, and $Q_E = 2.5$ and $P_E = \$14$ for the Europe.

If we define the total surplus as consumer surplus plus profits, how has price discrimination affected total profits?