

## Answer on Question #59974 -Economics - Microeconomics

Justo & Company use third-degree price discrimination in selling its product. The demand equations for the two markets are as follows:

$$\text{Market 1 } P_1 = 2.46 - 0.2Q_1$$

$$\text{Market 2 } P_2 = 4.54 - 0.8Q_2$$

The marginal cost is \$1.20

a. Determine the profit maximizing price and quantity in each market.

### Solution

Profit maximization or cost minimization is achieved when marginal revenue equals marginal cost and the market price ( $MR = MC = P$ ).

So, if  $MC = P$ , then on the market1

$$2,46 - 0,2Q_1 = 1,2$$

$$1,26 = 0,2Q_1$$

$$Q_1 = 6,3$$

$$P_1 = 1,2$$

On the market2

$$4,54 - 0,8Q_2 = 1,2$$

$$3,34 = 0,8Q_2$$

$$Q_2 = 4,175$$

$$P_2 = 1,2$$

### Answer

$$Q_1=6,3; P_1=1,2$$

$$Q_2=4,175; P_2=1,2$$