Answer on Question #59975 -Economics - Microeconomics

Justo & Company use third-degree price discrimination in selling its product. The demand equations for the two markets are as follows:
Market 1 P1 = 2.46 - 0.2Q1
Market 2 P2 = 4.54 - 0.8Q2

The marginal cost is $1.20
a. Determine the profit maximizing price and quantity in each market.

Solution

To determine the profit maximizing price and quantity in each market we have to solve the equation MC=P.
So, on the market1 $\mathrm{P1} = 1{,}2;$

$$2{,}46 - 0{,}2\mathrm{Q1} = 1{,}2$$
$$1{,}26 = 0{,}2\mathrm{Q1}$$
$$\mathrm{Q1} = 6{,}3$$

On the market2 $\mathrm{P2} = 1{,}2$

$$4{,}54 - 0{,}8Q2 = 1{,}2$$
$$3{,}34 = 0{,}8\mathrm{Q2}$$
$$\mathrm{Q2} = 4{,}175$$

Answer

Q1=6,3; P1=1,2

Q2=4,175; P2=1,2