

Answer on Question #64349 - Economics – Microeconomics

a) Question: Write an algebraic expression for the market demand function.

Solution:

$$\left\{ \begin{array}{l} Q_D=0, \text{ where } p>5. \\ Q_D= 50*(15-3p)=750-150p, \text{ where } p \leq 5; \\ Q_D= 100*(20-5p)+50*(15-3p)=2750-650p, \text{ where } p \leq 4; \end{array} \right.$$

Answer:

$$\left\{ \begin{array}{l} Q_D=0, \text{ where } p>5. \\ Q_D= 50*(15-3p)=750-150p, \text{ where } p \leq 5; \\ Q_D= 100*(20-5p)+50*(15-3p)=2750-650p, \text{ where } p \leq 4; \end{array} \right.$$

b) Question: If the price is SR 3, now many gallons of petrol per week are bought by (i) each car owner and (ii) each motorcycle owner?

Solution: If the price is SR 3, then each car owner are bought  $Q=20-5p=20-(5*3)=5$  gallons of petrol per week, each motorcycle owner are bought  $Q=15-3p=15-(3*3)=6$  gallons of petrol per week.

Answer: each car owner are bought 5 gallons of petrol per week, each motorcycle owner are bought 6 gallons of petrol per week.