Answer on Question \#64255-Economics - Microeconomics
a) 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 $Q=20-5 p=20-$ $5 * 3=5$ gallons of petrol per week, each motorcycle owner are bought $Q=15-3 p=15-3 * 3=6$ gallons of petrol per week.
b) Question: Write an algebraic expression for the market demand function.

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

$$
\left\{\begin{array}{l}
Q_{D}=2750-650 p, \text { where } p \leq 4 ; \\
Q_{D}=750-150 p, \text { where } p \leq 5 ; \\
Q_{D}=0, \text { where } p>5
\end{array}\right.
$$

