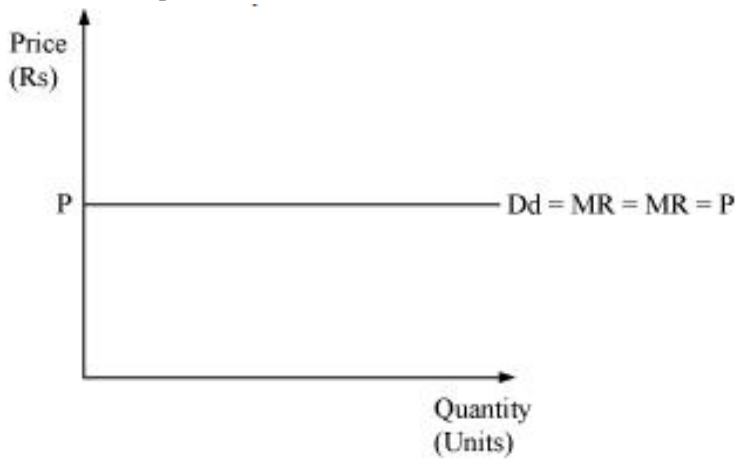
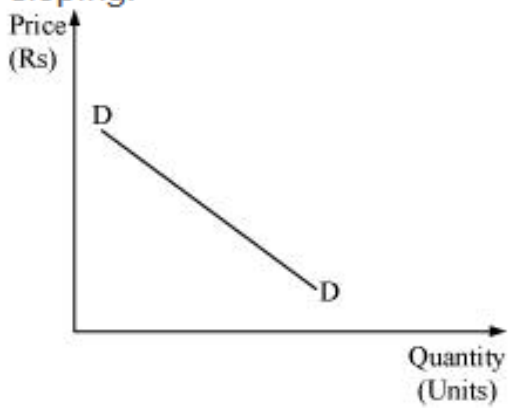
**Q1. What would be the shape of the demand curve so that the total revenue curve is**
(a) a positively sloped straight line passing through the origin?
(b) a horizontal line?
Ans:(a)**If the total revenue curve is a positively sloped straight line passing through the origin, then the slope of the demand curve will be a horizontal line parallel to the x-axis.**




**(b)**If the total revenue curve is a horizontal line, then the demand curve will be downward sloping.




Q2. From the schedule provided below calculate the total revenue, demand curve and the price elasticity of demand:

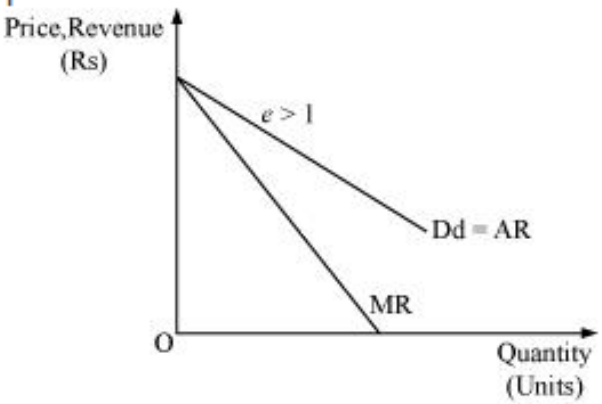
| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Quantity | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| Marginal Revenue | 10 | 6 | 2 | 2 | 2 | 0 | 0 | 0 | -5 |

**Ans:**

| Quantity | MR | TR | AR | $Ed = \frac{\Delta Q}{\Delta P} \times \frac{P}{Q}$ |
|---|---|---|---|---|
| 1 | 10 | 10 | $\frac{10}{1} = 10$ | – |
| 2 | 6 | $10 + 6 = 16$ | $\frac{16}{2} = 8$ | $\frac{1}{2} \times \frac{10}{1} = 5$ |
| 3 | 2 | $16 + 2 = 18$ | $\frac{18}{3} = 6$ | $\frac{1}{2} \times \frac{8}{2} = 2$ |
| 4 | 2 | $18 + 2 = 20$ | $\frac{20}{4} = 5$ | $\frac{1}{1} \times \frac{6}{3} = 2$ |
| 5 | 2 | $20 + 2 = 22$ | $\frac{22}{5} = 4.5$ | $\frac{1}{0.5} \times \frac{5}{4} = 2.5$ |
| 6 | 0 | $22 + 0 = 22$ | $\frac{22}{6} = 3.6$ | $\frac{1}{0.9} \times \frac{4.5}{5} = 1$ |
| 7 | 0 | $22 + 0 = 22$ | $\frac{22}{7} = 3.1$ | $\frac{1}{0.5} \times \frac{3.6}{6} = 1.2$ |
| 8 | 0 | $22 + 0 = 22$ | $\frac{22}{8} = 2.7$ | $\frac{1}{0.4} \times \frac{3.1}{7} = 1.1$ |
| 9 | -5 | $22 + (-5) = 17$ | $\frac{17}{9} = 1.9$ | $\frac{1}{0.8} \times \frac{2.7}{9} = 0.38$ |

Q3. What is the value of the MR when the demand curve is elastic?

**Ans:** When demand curve is elastic $(e_d > 1)$, then according to the relationship MR $= P\left(1 - \frac{1}{e_d}\right)$, the fraction $\frac{1}{e_d}$ will be less than 1. Hence, MR will be positive when $P\left(1 - \frac{1}{e_d}\right)$ is positive.

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