CHAPTER – 16   SPEED, DISTANCE AND TIME

ACTIVITY 2

FORMULA :

a. To convert Km/hr in m/sec we multiply by $\frac{5}{18}$

b. To convert m/sec in Km/hr we multiply by $\frac{18}{5}$

Q1.Express in m/sec

a. 60 km/hr

$$60 \text{ x } \frac{5}{18} = \frac{300}{18} = 16\frac{2}{3} \text{ m/sec}$$

b . 72 km/hr

$$72 \text{ x } \frac{5}{18} = \frac{360}{18} = 20 \text{ m/sec}$$

c. 198 km/hr

$$198 \text{ x } \frac{5}{18} = \frac{990}{18} = 55 \text{ m/sec}$$

d. 45 km/hr

$$45 \text{ x } \frac{5}{18} = \frac{225}{18} = 12\frac{1}{2} \text{ m/sec}$$

e. 36 km/hr

$$36 \text{ x } \frac{5}{18} = \frac{180}{18} = 10 \text{ m/sec}$$

Q2. Convert into km/hr

  a. 20 m/sec

$$20 \times \frac{18}{5} = \frac{360}{5} = 72 \text{ km/hr}$$

  b. 85 m/sec

$$85 \times \frac{18}{5} = \frac{1530}{5} = 306 \text{ km/hr}$$

  c. 120 m/sec

$$120 \times \frac{18}{5} = \frac{2160}{5} = 432 \text{ km/hr}$$

  d. 45 m/sec

$$45 \times \frac{18}{5} = \frac{810}{5} = 162 \text{ km/hr}$$

e. 25 m/sec

$$25 \times \frac{18}{5} = \frac{450}{5} = 90 \text{ km/hr}$$

Sol. 3 Distance = 370 km

    Time = 5 hours

   Speed = <u>Distance</u> = 370 ÷ 5 = 74 Km/hr

         Time

In m/sec = 74 $\times \frac{5}{18} = \frac{370}{18} = 20.5$ m/sec