

Answer on Question #62164 – Math – Algebra

Question

if a bus is travelling at a speed of 66m/h....The bus has to go to Kolkata which is 720km far what will be the time taken....?BUT GIVE THE ANSWER IN Second.....

Solution

The relationship of speed, time and distance is given by

$$Time = \frac{Distance}{Speed}$$

If 66m/h means 66 miles per hour, then

$$\begin{aligned} t &= \frac{720 \text{ km}}{66 \frac{m}{h}} = \frac{120 \text{ km} \cdot h}{11 \text{ m}} = \\ &= \frac{120 \text{ km} \cdot 3600 \text{ sec}}{11 \cdot 1.61 \text{ km}} \approx 24403 \text{ sec} \end{aligned}$$

Note that 1 hour is equal to 3600 seconds; 1 mile is equal to 1.61 kilometer.

There is a less realistic case if 66m/h means 66 meters per hour, then

$$\begin{aligned} t &= \frac{720 \text{ km}}{66 \frac{m}{h}} = \frac{120 \text{ km} \cdot h}{11 \text{ m}} = \\ &= \frac{120}{11} \cdot \frac{1000m \cdot 3600 \text{ sec}}{m} \approx 39272727 \text{ sec} \end{aligned}$$

Answer: 24403 seconds.