LONG QUESTION ANSWERS

Question

The distance between two stations is 240km. A train takes 4 hours to cover this distance. Calculate the speed of the train.

Solution

Distance = 240Km
Time taken = 4h
Speed = Distance/Time
Speed = 240/4
Speed = 60Km/h

Question

The odometer of a car reads 87653km at 11:30 AM and 88613 km at 7:30 PM. Calculate the speed of car in km/min and km/hr during this time.

Solution

D = (88613-88653) km time = 8 hours
Speed in km = distance/time=960/480=2km/min
Speed = 960/8
Speed = 120km/hr

Question

Calculate the distance between two stations if a person takes 15 minutes to cover it with a speed of 2m/s.

Solution

Speed = 2m/s
Time = 15 minutes
Distance = speed*time=15*60
Distance = 900sec

Question

What would be the speed of a car if it is covering a distance of 36000m in 2 hours? Determine its speed in km/h and m/s.

Solution

Distance = 36000m
Time= 2 hours = 7200sec
Distance in kilometres per hour = distance In km /time in hour = 36km/2 hours = 18 km/hr
Speed in m/s = distance in m/time in sec
36000/7200 = 5m/s

Question

A simple pendulum takes 63 seconds to complete 30 oscillations. Calculate its time period.

Solution

Time period = total time taken/number of oscillations
Time period = 63/30
Time period (t) = 2.1seconds