1. A passenger elevator travels from the first floor to the 60th floor, a distance of 210 m, in 35 sec. What is the elevator's speed?

\[ S = \frac{d}{t} = \frac{210 \text{ m}}{35 \text{ sec}} = 6 \text{ m/s} \]

2. A motorcycle is moving at a constant speed of 40 km/hr. How long does it take the motorcycle to travel a distance of 10 km?

\[ S = \frac{d}{t} \quad \Rightarrow \quad (t) S = \frac{d}{x} \quad \Rightarrow \quad \frac{tS}{S} = \frac{d}{S} \]

So \[ t = \frac{d}{S} = \frac{10 \text{ km}}{40 \text{ km/hr}} = 0.25 \text{ hr} \quad \text{(or 15 min)} \]

3. How far does a car travel in 0.75 hr, if it is moving at a constant speed of 88 km/hr?

\[ S = \frac{d}{t} \quad \Rightarrow \quad (t) S = \frac{d}{x} \]

So \[ tS = d = 0.75 \text{ hr} \times (88 \text{ km/hr}) = 66 \text{ km} \]

4. A long-distance runner is running at a constant speed of 5 m/s. How long does it take the runner to travel 1 km?

From #2 above \[ t = \frac{d}{S} = \frac{1 \text{ km}}{5 \text{ m/s}} \]

These units need to be the same:

\[ 1 \text{ km} = 1000 \text{ m} \]

So \[ \frac{1000 \text{ m}}{5 \text{ m/s}} = 200 \text{ sec} \]