

Science meets Dharma - Test *Speed – Force 2*

Name:..... Date:.....

- 1) If the average speed of a man walking at steady pace is 6km/h. Express this **speed in m/s**.
- 2) Lobsang hears thunder 10 seconds after he sees lightning. If the speed of sound is 340m/s, calculate the distance of the lightning from Lobsang.

- 3) Complete this table:

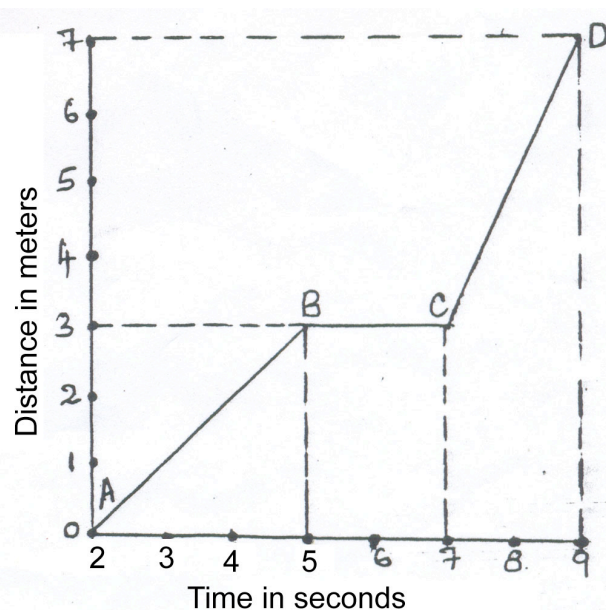
	s	min	h min	h
a)	s	min	40h 30min	h
b)	4800 s	min		h
c)	s	720 min		h

- 4) A train travels at 60km/h for 45min, 30km/h for the next 20min and then 70km/h for the next 50min.

- a) What is the **average speed** of the train in km/h?
- b) Draw a **distance-time-graph** of the motion of the train

- 5) The graph given shows the position of a body at different times, calculate the **speed** of the body as it moves from

- a) A to B
- b) B to C
- c) C to D



- 6) A toy train runs on a circle of diameter 0.6m. It takes 5 seconds to make two full circles.

What is its **speed** in m/s ?

- 7) What is **inertia**? In which **unit** do we measure it?

- 8) We have two forces: One of **4N** and one of **6N**.

a) What resultant force do we get, when the two forces act in the same direction? What if they act in opposite directions?

b) Add the forces by drawing, when there is an angle of 90° between them. What is the resultant now? (take a length of 1cm to represent a force of 1N)