

## Exercises - distance, speed and acceleration

1. Use the equation for speed to complete the following table

Distance (m)	Time (s)	Speed (m/s)
12	6	
	0.02	35
300		20

2. Change the number 3 459 875 in scientific notation

3. A subway train traveling at 175 km/h takes 25 minutes to go between the Royal York and the Dufferin Stations.

What is the distance between these stations.

4. A cart attached to a 5 Hz ticker tape timer produces these dots when pushed gently on a smooth table.



a) Plot a speed time graph using the tape and calculate the slope of the line.

b) What type of motion is displayed by the tape? Why?

c) If the cart was allowed to stop on its own (even after the tape ran out) how far did it go (approximately) after 12 s?

d) What was the average speed of the cart during the 12 s?

e) What does the slope of the line indicate?

5. Give an example of uniform motion.

6. Give an example of non-uniform motion.