

Name _____ Class _____ Date _____

S1 A peregrine falcon flies at 50 m/s for 7 s. How far does it fly?

1 The boxes on the right show two formulae linking speed, time and distance. Which one do you need to use to answer the question above? _____

A $speed = \frac{distance}{time}$

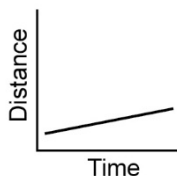
2 Fill in the numbers below and then work out the answer.

B $distance = speed \times time$

_____ = _____ × _____
 = _____ m

S2 Zahir starts a race fast, then gets a stitch and has to stop. When he starts running again he goes more slowly than before. Sketch a distance/time graph to show Zahir's race if he runs at a constant speed in each section of the race.

3 The four graphs below are all drawn with the same scales. They show different speeds. Write the speed under each graph, choosing numbers from the box on the right.



- 0 m/s
- 2 m/s
- 4 m/s
- 6 m/s

speed = _____ speed = _____ speed = _____ speed = _____

A sketch graph is a graph with no numbers on it (like the ones in question 3). A sketch distance/time graph can still give information about speed by showing different gradients to represent faster or slower speeds.

4 Draw a sketch graph using the axes on the right to show Zahir's race from question S2 above.



5 An athlete runs 100 m in 20 s. Calculate their speed.

speed = _____ m/s

- I can...**
- recall formulae relating distance, speed and time
 - use formulae relating distance, speed and time
 - recall typical speeds for walking, running, cycling and travelling by car
 - interpret distance/time graphs (including recognising what the steepness of the line tells you)
 - represent distance/time graphs
 - determine speed from the gradient of a distance/time graph.