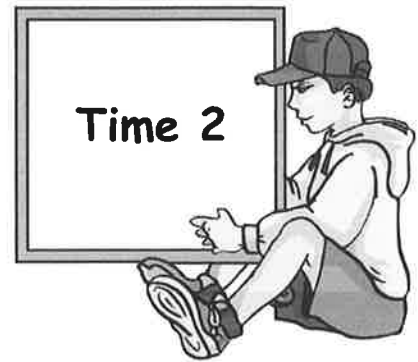


# CHAPTER 9

## Exercise 1



Teacher to decide

1. Calculate the distance travelled by a :-
  - a van, going at 40 mph for 5 hours
  - a train, travelling at 130 mph for 7 hours
  - a plane, doing 370 mph for 6 hours
  - a balloon, floating at 3 mph for 12 hours
  - a bus, moving at 65 mph for 4 hours
  - a rally car, doing 80 mph for 3 hours.

2. A plane left Portugal at 1555 and arrived in Glasgow at 1855.  
The plane flew at an average speed of 450 km/hr.



How long did the flight take and how many kilometres did the plane cover ?

3. A ferry left Gourock at 1.30 pm and sailed at a steady speed of 16 mph along the River Clyde.



How far was the ferry from Gourock at 4.30 pm ?

## Exercise 2

1. Calculate the time taken for each of these journeys :-
  - a walking, 9 km at 3 km/hr
  - a running, 28 km at 7 km/hr
  - a flying, 3000 km at 500 km/hr
  - a driving, 600 miles at 50 mph
  - a skating, at 5 km/hr for 15 km
  - a crawling, 26 metres at 2 metres/second.



2. When will these vehicles arrive ?

- a Train, leaves 10.30 am. Travels 550 miles at an average speed of 110 mph.
- b Bike, leaves 1.45 pm. Travels 54 miles at an average speed of 9 mph.

3. A large jet left London's Gatwick Airport at 2230 on a Friday.  
Its destination was Cuba, 7500 kilometres away.



If it travelled at a steady 750 km/hr :-

- a How long did the journey take ?
- b At what time and on what day did the plane reach Cuba ?

## Exercise 3

1. Work out these average speeds :-

- |   |  |
|---|--|
| a A liner travels 54 km in 3 hours      | b A cyclist covers 56 km in 4 hours    |
| c A runner does 400 metres in 4 minutes | d A spider covers 4 metres in 1 minute |
| e A girl hops 90 metres in 2 minutes    | f A bee covers 28 metres in 4 seconds  |
| g A bike travels 4 miles in 8 minutes   | h A jet flies 240 metres in 8 seconds. |

2.



A plane left Glasgow at 11.50 am and flew 2000 miles to Gran Canaria, arriving at 3.50 pm.

- How long did the journey take ?
- What was the plane's average speed ?

3. An old steam train picks up passengers and leaves Inverness at 9.45 am.

It travels the 252 km to Edinburgh, arriving at 1.45 pm.

- How long did the journey take ?
- What was the average speed of the train ?



## Exercise 4

1. An air ambulance lifted off from a hospital at 0742 and arrived at the scene of the accident at 1042.

If the helicopter flew for 417 miles, what was its average speed ?



2.



An oil tanker travelled through 30 miles of shallow water at a slow speed of 5 mph.

How long did it take the tanker to undertake this part of its journey ?

3. A communications satellite orbits a planet at an average speed of 9 720 mph, taking 4 hours to complete its orbit.

Calculate the length of the orbit.



4.



A caterpillar moves at the slow speed of 8 centimetres per minute.

At this speed, how long does it take the caterpillar to cross a lawn 1.6 metres wide ?

## Revision Exercise

1. Due to a fire bell going off, the conference, due to end at 1545, did not finish until 1710.

How long did it over-run ?



2.



China is 7 hours ahead of us.

The Thomas family flew there to visit the Great Wall, leaving London Heathrow at 8.30 pm on a Friday.

If the flight to China took 11 hours 25 minutes, on what day and at what time (China time) did they arrive there ?

3. A coach travelled 325 miles in 5 hours.

What was its average speed ?



4.



Jess left her aunt's home in Glasgow and headed along the country roads, driving at a steady speed of 48 km/hr to her own house in Nairn, a distance of 288 km.

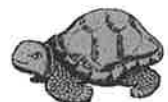
How long did it take her ?

5. A train left Stirling bound for Cardiff.  
The journey took 4 hours, averaging a speed of 89 mph.

How far is it by rail from Stirling to Cardiff ?



6. At full speed, a tortoise took 8 minutes to cross a cabbage patch, 4 metres wide.  
At what speed did he move, in centimetres per minute ?



7.



A ladybird can cover 70 metres in half an hour.

Calculate the average speed of the ladybird, in metres per hour.

8. It took a worm 250 minutes, slithering at 6 cm/min to squirm across a piece of ground.

How far had it travelled, in metres ?



9. A marathon runner out training, set off at 2120 and ran for 15 miles through the countryside at an average speed of 10 mph, until he arrived back home.

- a How long did his training run last, in minutes ?  
b At what time did he arrive back home ?

