

Speed, Distance and Time

For Pearson Edexcel GCSE Mathematics (1MA1) • Foundation tier

Name _____

Total marks: **29**

Answer **all** questions in the spaces provided. Show your working: marks are given for correct method.

- 1** A ferry sails at an average speed of 24 km/h.
The crossing takes 45 minutes.
How far does the ferry sail?

..... km
(2)

(Total for Question 1 is 2 marks)

- 2** Change a speed of 54 kilometres per hour into metres per second.

..... m/s
(2)

(Total for Question 2 is 2 marks)

- 3** A canal boat travels 9 km along a canal.
It sets off at 10 50
It arrives at 12 20

Work out the average speed of the canal boat.
Give your answer in kilometres per hour.

..... km/h
(2)

(Total for Question 3 is 2 marks)

- 4** A high-speed train travels 351 km in 1 hour 18 minutes.
Work out the average speed of the train.
Give your answer in kilometres per hour.

..... km/h
(3)

(Total for Question 4 is 3 marks)

- 5** Ines cycles to work.
On Route A she cycles 12 km in 40 minutes.

(a) Work out Ines's average speed on Route A.

..... kilometres per hour
(2)

- (b) Route B is 15 km long.
On Route B, Ines can cycle at an average speed of 20 km/h.
Ines says,
 "Route B is longer, but it is quicker than Route A."
Is Ines correct?
You must show how you get your answer.

(3)

(Total for Question 5 is 5 marks)

6 Zara rode her bike 40.8 km in 1 hour 56 minutes.

- (a) Work out an estimate for her average speed.
Give your answer in kilometres per hour.

..... km/h
(3)

- (b) Is your answer to part (a) an underestimate or an overestimate?
Give a reason for your answer.

.....
.....
(1)

(Total for Question 6 is 4 marks)

7 Ali's journey to work takes 1 hour in total.
He walks 2 km to the station at an average speed of 5 km/h.
He then catches a train straight away and travels 45 km by train to work.

Work out the average speed of the train.
Give your answer in kilometres per hour.

..... km/h
(3)

(Total for Question 7 is 3 marks)

- 8** Priti is driving to a concert hall 75 miles from her home.
She wants to arrive at the concert hall by 19 30
She thinks she can drive at an average speed of 50 miles per hour.

(a) Work out the latest time Priti can leave home.

.....
(3)

- (b) On the day, Priti leaves home at 17 50 and arrives at the concert hall at 19 25
Was her average speed more than or less than 50 miles per hour?
Give a reason for your answer.

.....
.....
(1)

(Total for Question 8 is 4 marks)

- 9** Dev goes on a bike ride.
For the first 12 km of the ride, his average speed is 16 km/h.
For the last 30 minutes of the ride, his average speed is 20 km/h.
Work out Dev's average speed for the whole ride.

..... km/h
(4)

(Total for Question 9 is 4 marks)