

Speed, Distance and Time

For AQA GCSE Mathematics (8300) • Foundation tier

Name _____

Total marks: **29**

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

- 1** Kenji walks at a constant speed of 5 km/h for 1 hour 24 minutes.
How far does he walk?

[2 marks]

Answer _____ km

- 2** How long does it take to travel 75 km at 60 km/h?
Give your answer in hours and minutes.

[2 marks]

Answer _____ hours _____ minutes

- 3** A tram leaves the first stop at 10:52 am.
It reaches the last stop at 11:07 am.
The tram line is 5 miles long.
Work out the average speed of the tram in miles per hour.

[3 marks]

Answer _____ mph

4 $\text{Time} = \frac{\text{distance}}{\text{speed}}$

A cyclist travels twice as far at half the speed.

What happens to the time taken?

Circle your answer.

[1 mark]

no change

x2

x4

÷4

- 5 A cheetah can run at 30 metres per second.
A car on a motorway travels at 70 miles per hour.
Use 1 mile = 1.6 km
Which is faster, the cheetah or the car?
You must show your working.

[4 marks]

Answer _____

- 6 A runner runs 400 metres in 60 seconds.
Work out her average speed in kilometres per hour.

[3 marks]

Answer _____ km/h

- 7** A delivery drone flies 18 km in 24 minutes.
At the same average speed, how long will it take to fly 60 km?
Give your answer in hours and minutes.

[3 marks]

Answer _____ hours _____ minutes

- 8** Maya rides in a 120 km cycle race.
She finishes the race in 4 hours.
For the first 1 hour 30 minutes her average speed is 24 km/h.

Maya says,

“For the rest of the race, my average speed was more than 30 km/h.”

Is Maya correct?

You must show your working.

[3 marks]

- 9** Hana is driving 132 miles to an airport.
She leaves home at 11:05 am.
She must arrive at the airport by 1:50 pm.

(a) Work out the lowest average speed at which she can drive to arrive on time.

[3 marks]

Answer _____ mph

- (b) Hana decides to stop for a break on the way.
She still leaves at 11:05 am and arrives at 1:50 pm.
Does she need to drive at a higher or lower average speed than your answer to part (a)?
Give a reason for your answer.

[1 mark]

- 10** Sofia drives from her home to the coast.
First she drives for 45 minutes on country roads at an average speed of 40 mph.
Then she drives 105 miles on the motorway at an average speed of 70 mph.

Work out her average speed for the whole journey.

[4 marks]

Answer _____ mph