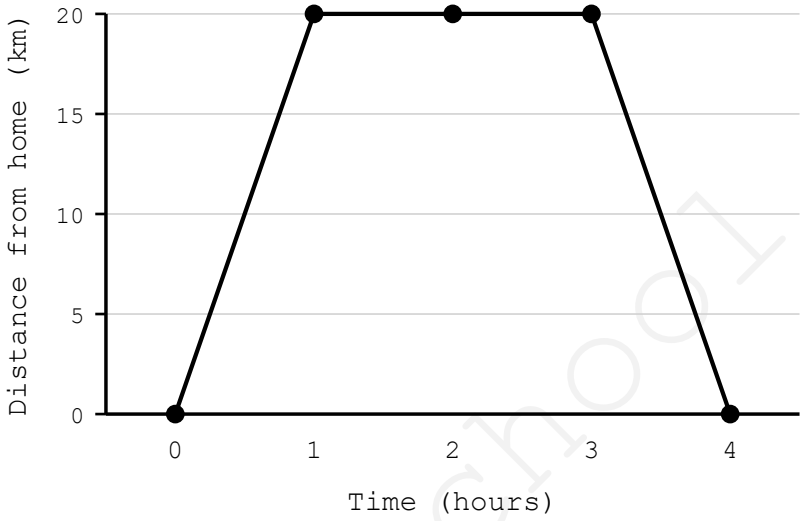
Speed, Distance & Time: Hard Practice Paper 8

Q1. The graph shows a journey to a friend's house and back. How long did the visit last?



A. 20 hours *B.* 1 hour *C.* 3 hours *D.* 4 hours *E.* 2 hours

Q2. A train 200 m long travels at 25 m/s. It takes 40 seconds from the front entering a tunnel to the back leaving it. How long is the tunnel?

A. 1,000 m *B.* 800 m *C.* 1,200 m *D.* 600 m *E.* 500 m

Q3. A driver covers 30 km at 30 km/h, then 60 km at 60 km/h, then 90 km at 45 km/h. What is the average speed for the whole journey?

A. 60 km/h *B.* 44 km/h *C.* 50 km/h *D.* 40 km/h *E.* 45 km/h

myfreeschool

Q4. The table shows four cyclists. Which one was the slowest?

Cyclist	Distance	Time
Ali	45 km	3 hours
Bea	42 km	2 hours
Cal	60 km	4 hours
Dee	36 km	2.5 hours

A. Bea

B. Ali

C. Dee

D. Cal

E. Ali and Cal were equally slow

Q5. A runner sets off at 6 km/h. Twenty minutes later a cyclist follows along the same road at 18 km/h. How far from the start does the cyclist catch up?

A. 6 km *B.* 2 km *C.* 4 km *D.* 3 km *E.* 1.5 km

Q6. A car drives out at 40 km/h and returns along the same road at 60 km/h. Which statement about the average speed for the whole trip must be true?

A. It is exactly 50 km/h

B. It is less than 50 km/h

C. It is more than 50 km/h

D. It is exactly 48 km/h only if the distance is 48 km

E. It cannot be worked out without the distance

Q7. A speed limit is 70 miles per hour. Taking 1 mile as 1.6 km, what is this in kilometres per hour?

A. 70 km/h *B.* 110 km/h *C.* 44 km/h *D.* 126 km/h *E.* 112 km/h

myfreeschool

Q8. A marathon runner keeps a steady pace of 5 minutes for each kilometre over 42 km. How long does the race take?

A. 3 hours 30 minutes

B. 3 hours 20 minutes

C. 4 hours 10 minutes

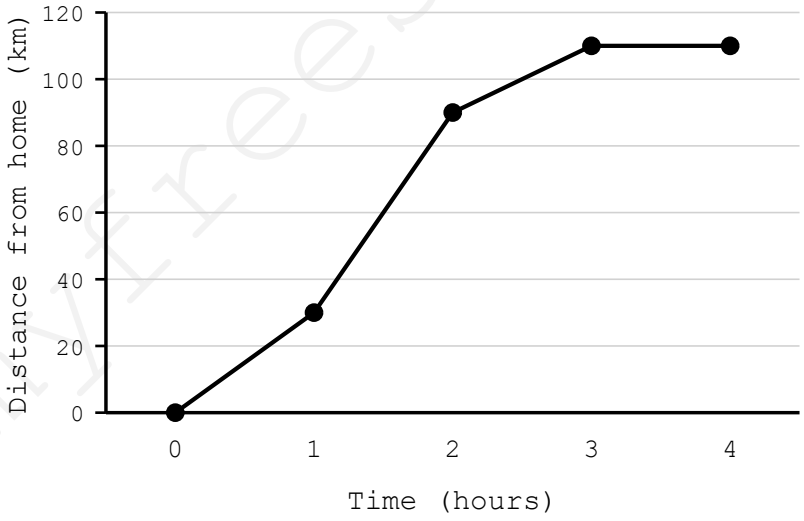
D. 2 hours 50 minutes

E. 3 hours 45 minutes

Q9. A driver averages 90 km/h for 2 hours. Her average speed for the whole 3 hour journey turns out to be 80 km/h. What was her average speed in the third hour?

A. 70 km/h *B.* 60 km/h *C.* 50 km/h *D.* 80 km/h *E.* 40 km/h

Q10. The graph shows a car's distance from home. Between which times was it travelling fastest?



A. Between 2 and 3 hours

B. Between 0 and 1 hour

C. Between 1 and 2 hours

D. Between 3 and 4 hours

E. It was the same speed throughout

myfreeschool

Q11. A ferry leaves a harbour at 08:00 travelling at 24 km/h. A speedboat leaves the same harbour at 09:00 on the same route at 40 km/h. How far from the harbour does the speedboat catch up?

A. 24 km *B.* 40 km *C.* 36 km *D.* 60 km *E.* 72 km

Q12. A journey of 300 km is driven at an average of 60 km/h. If the first 100 km took 2 hours 30 minutes, what was the average speed for the rest?

A. 80 km/h *B.* 75 km/h *C.* 70 km/h *D.* 90 km/h *E.* 60 km/h

Q13. At 20 m/s a car's thinking distance is 14 m and its braking distance is 40 m. If the speed doubles, the thinking distance doubles and the braking distance becomes four times as long. What is the total stopping distance at 40 m/s?

A. 216 m *B.* 108 m *C.* 188 m *D.* 160 m *E.* 94 m

Q14. A train leaves at 13:20 and must cover 210 km to arrive by 16:32. It travels the first 90 km at 60 km/h and is then held at a signal for 12 minutes. What average speed is needed for the last 120 km?

A. 80 km/h *B.* 75 km/h *C.* 90 km/h *D.* 70 km/h *E.* 60 km/h

Q15. A walker and a cyclist set off from the same place at the same time in opposite directions, at 5 km/h and 19 km/h. After how long are they 36 km apart?

A. 45 minutes

B. 2 hours

C. 1 hour

D. 1 hour 30 minutes

E. 3 hours

myfreeschool