

2. Omar travelled from Nairobi to Mombasa by train.
The journey took 13 hours 15 minutes.
The average speed was 40 km/h.

May 09 34

Work out the distance from Nairobi to Mombasa.

..... km

Q2

(Total 3 marks)

5. Bridget flew from the UK to Dubai.
Her flight from the UK to Dubai covered a distance of 5456 km.
The flight time was 7 hours 45 minutes.

Nov 06 44

Leave blank

Work out the average speed of the flight.

..... km/h

Q5

(Total 3 marks)

4. A train travels 165 km.
Its average speed for the journey is 60 km/h.
Work out the time that this journey takes.
Give your answer in hours and minutes.

Nov 08 44

Leave blank

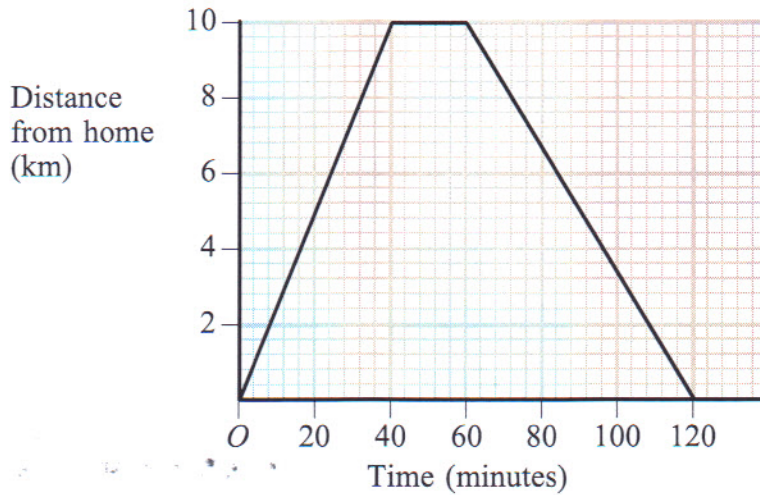
..... hours minutes

Q4

(Total 3 marks)

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4. Jodi went on a trip by cycle from his home.
The diagram shows his distance/time graph.



- (a) At what times was Jodi 6 km from home?

..... minutes

..... minutes

(2)

- (b) Where was Jodi after 120 minutes?

.....

(1)

- (c) Between what times was Jodi moving fastest?

..... minutes, minutes

(1)

- (d) Calculate Jodi's speed during the first 20 minutes of his trip.
Give your answer in kilometres per hour.

..... km/h

(2)

- (e) At what time had Jodi cycled 14 km?

..... minutes

(1)

(Total 7 marks)

Q4



May 07 3H

7. A tunnel is 38.5 km long.

(a) A train travels the 38.5 km in 21 minutes.

Work out the average speed of the train.
Give your answer in km/h.

..... km/h
(3)

(b) To make the tunnel, a cylindrical hole 38.5 km long was drilled.
The radius of the cylindrical hole was 4.19 m.

Work out the volume of earth, in m^3 , which was removed to make the hole.
Give your answer correct to 3 significant figures.

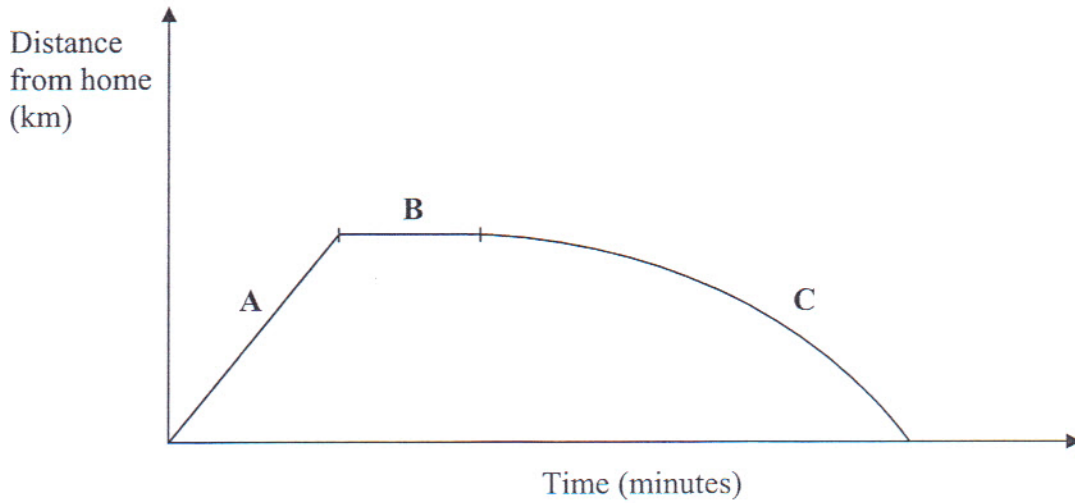
..... m^3
(3)

(Total 6 marks)

Q7

NOV 08 44

8. John goes on a trip.
Here is the travel graph for his trip.



The travel graph has three parts, A, B and C.

Here are four statements.

- John is not moving.
- John is travelling at a steady speed.
- John's speed is increasing.
- John's speed is decreasing.

Choose the statement from the box that best describes

- (i) part A,
- (ii) part B,
- (iii) part C,

(Total 3 marks)

Q8

10.

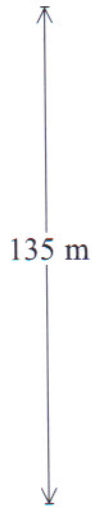
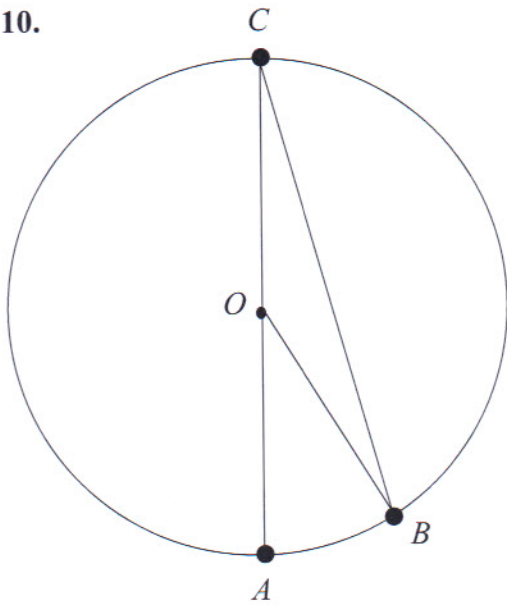


Diagram
NOT
accurately
drawn



May 06 3H

The diagram represents part of the London Eye.
 A , B and C are points on a circle, centre O .
 A , B and C represent three capsules.
 The capsules at A and B are next to each other.
 A is at the bottom of the circle and C is at the top.

The London Eye has 32 equally spaced capsules on the circle.

(a) Show that angle $AOB = 11.25^\circ$.

(1)

(b) Find the size of the angle between BC and the horizontal.

.....
(3)



May 06 3H
Q10 cont

The capsules move in a circle of diameter 135 m.

- (c) Calculate the distance moved by a capsule in making a complete revolution.
Give your answer correct to 3 significant figures.

..... m
(2)

The capsules move at an average speed of 0.26 m/s.

- (d) Calculate the time taken for a capsule to make a complete revolution.
Give your answer in minutes, correct to the nearest minute.

..... min
(3)

(Total 9 marks)

Q10