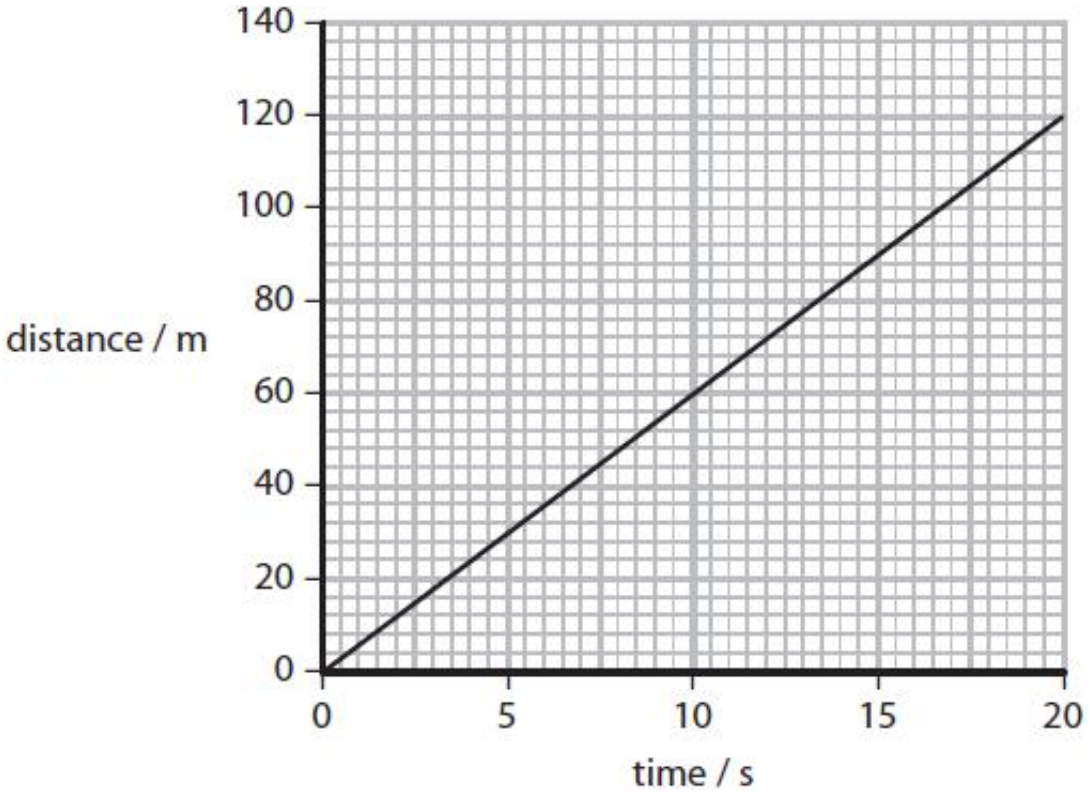
Displacement-Time Graphs

Q1.

The graph shows the distance/time graph for a boat.



Use the graph to find the speed of the boat.

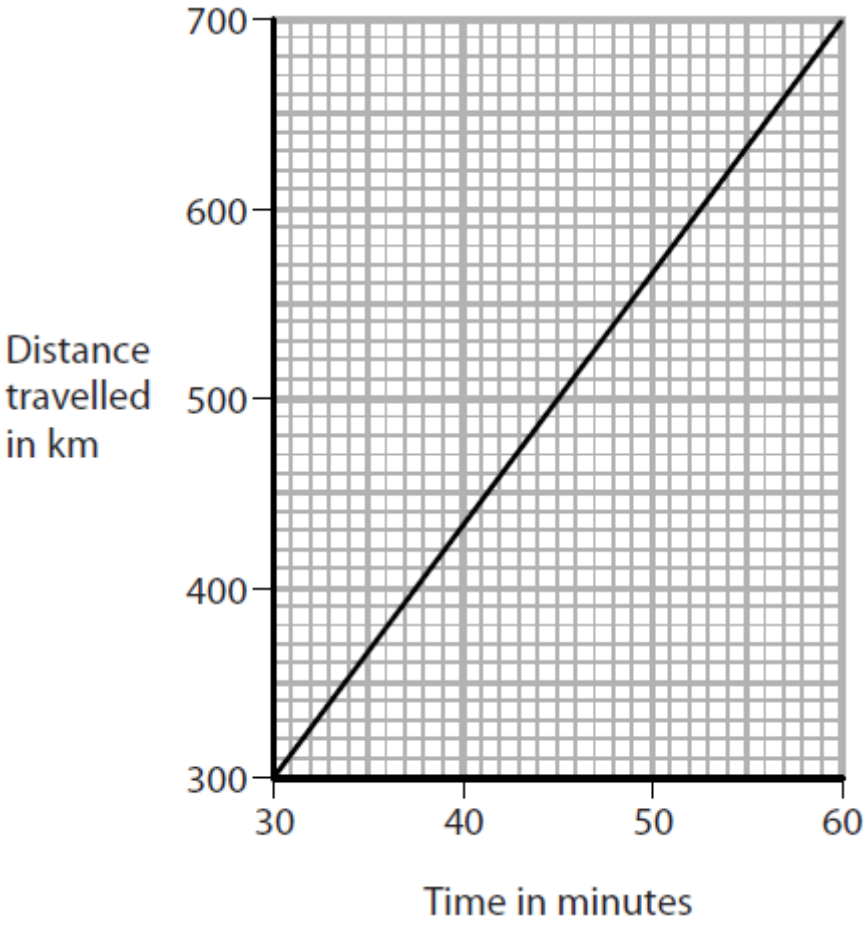
(2)

speed = ... m/s

(Total for question = 2 marks)

Q2.

The graph shows how the distance travelled by an aeroplane changes during part of its journey.



(a) (i) State the formula linking average speed, distance moved and time taken.

(1)

(ii) Calculate the average speed of the aeroplane during this part of its journey.
Give a suitable unit.

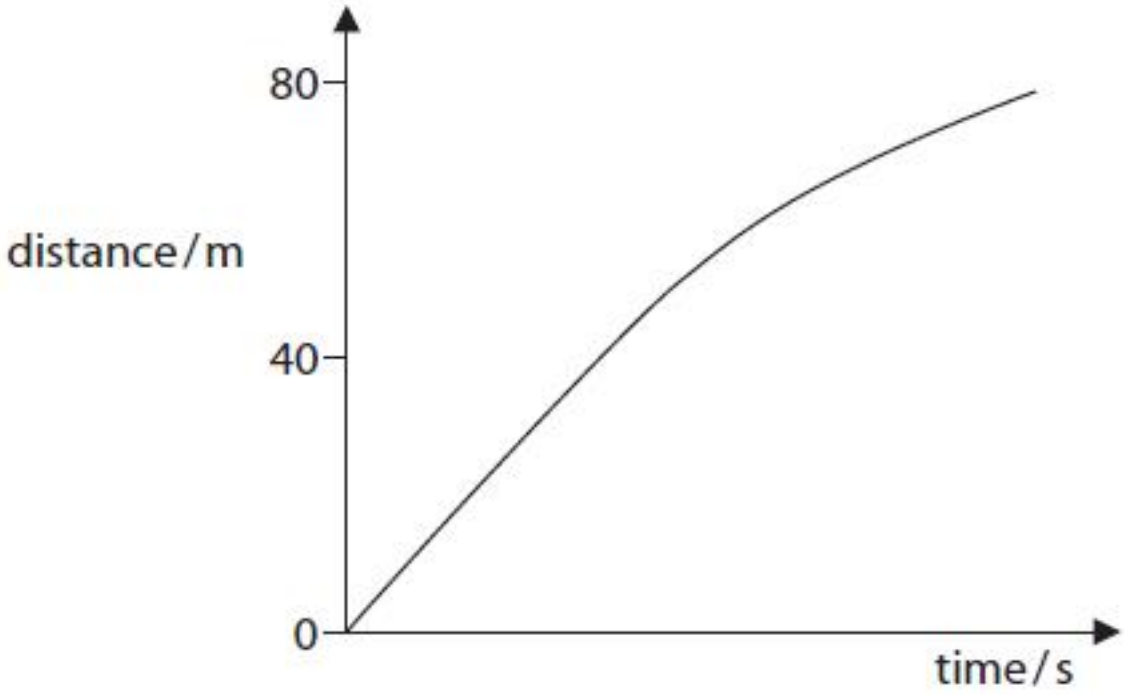
(4)

average speed = ... unit .....

(Total for question = 5 mark)

Q3.

The distance-time graph for a car is shown below.



Describe what the graph shows about the speed of the car as it travels the 80 m.

(2)

.....

.....

.....

.....

.....

Q4.

Two people, L and M, have a 100 m race.

L starts running before M.

Figure 11 shows a distance/time graph of the race.

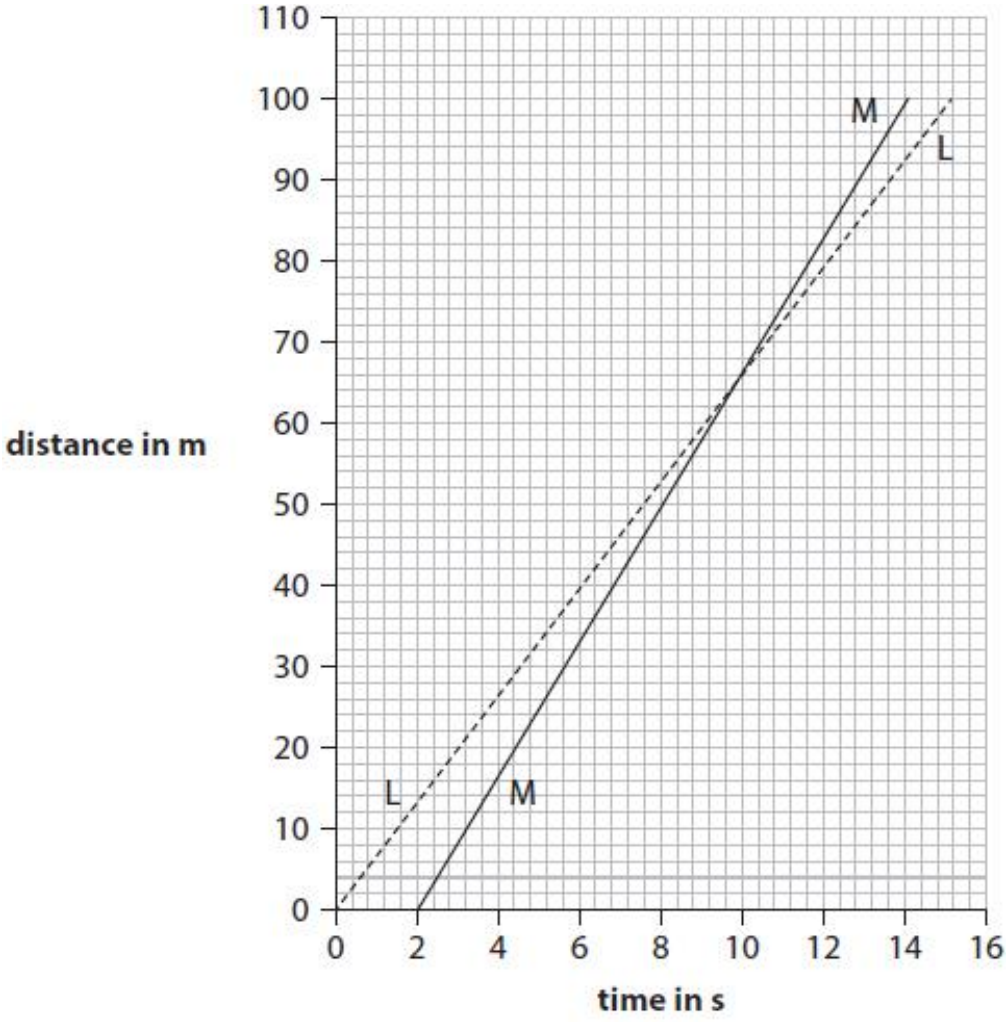


Figure 11

(i) State the **distance** that L has run when M overtakes.

(1)

distance = ... m

(ii) Calculate the velocity of L when running the 100 m race.

(2)

velocity = ... m/s

(Total for question = 3 marks)

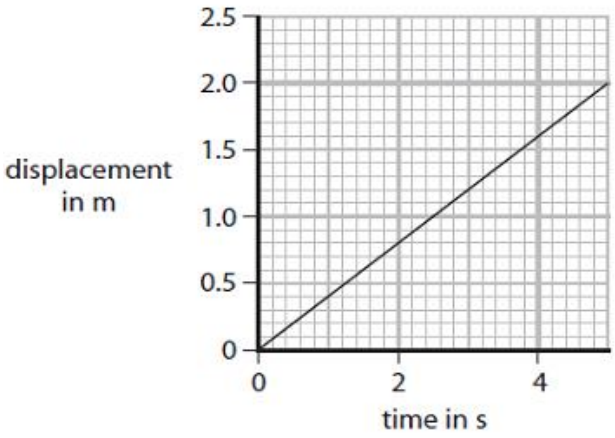
Q5.

Answer the question with a cross in the box you think is correct ☒. If you change your mind about an answer, put a line through the box ☒ and then mark your new answer with a cross ☒.

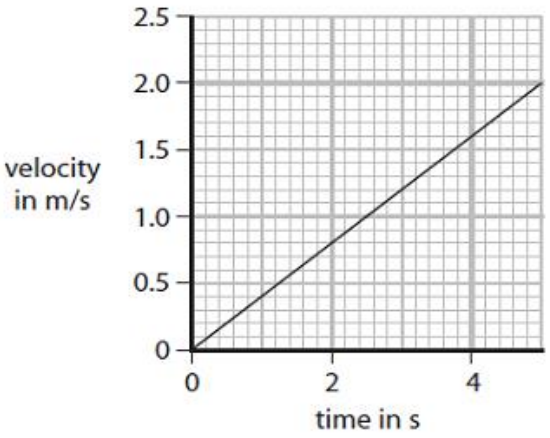
Which of these graphs represents an object moving with a constant velocity of 2 m/s?

(1)

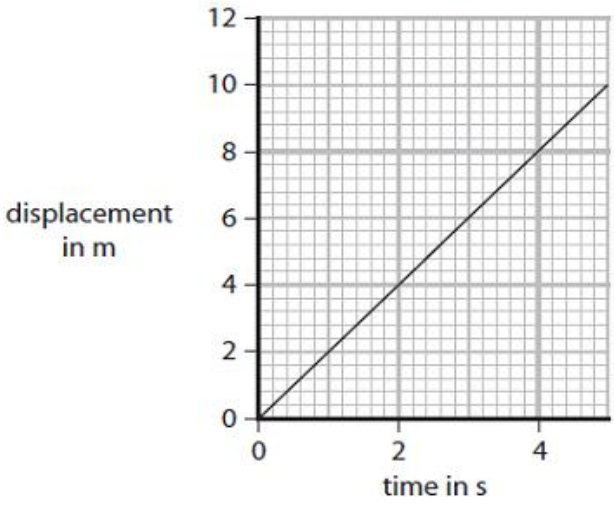
☒ **A**



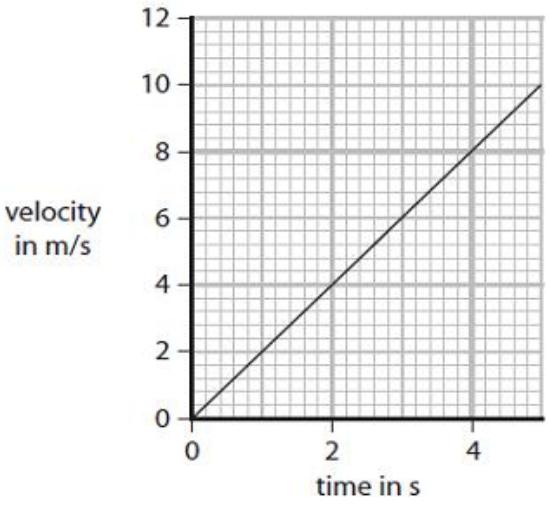
☒ **B**



☒ **C**



☒ **D**



(Total for question = 1 mark)

Q6.

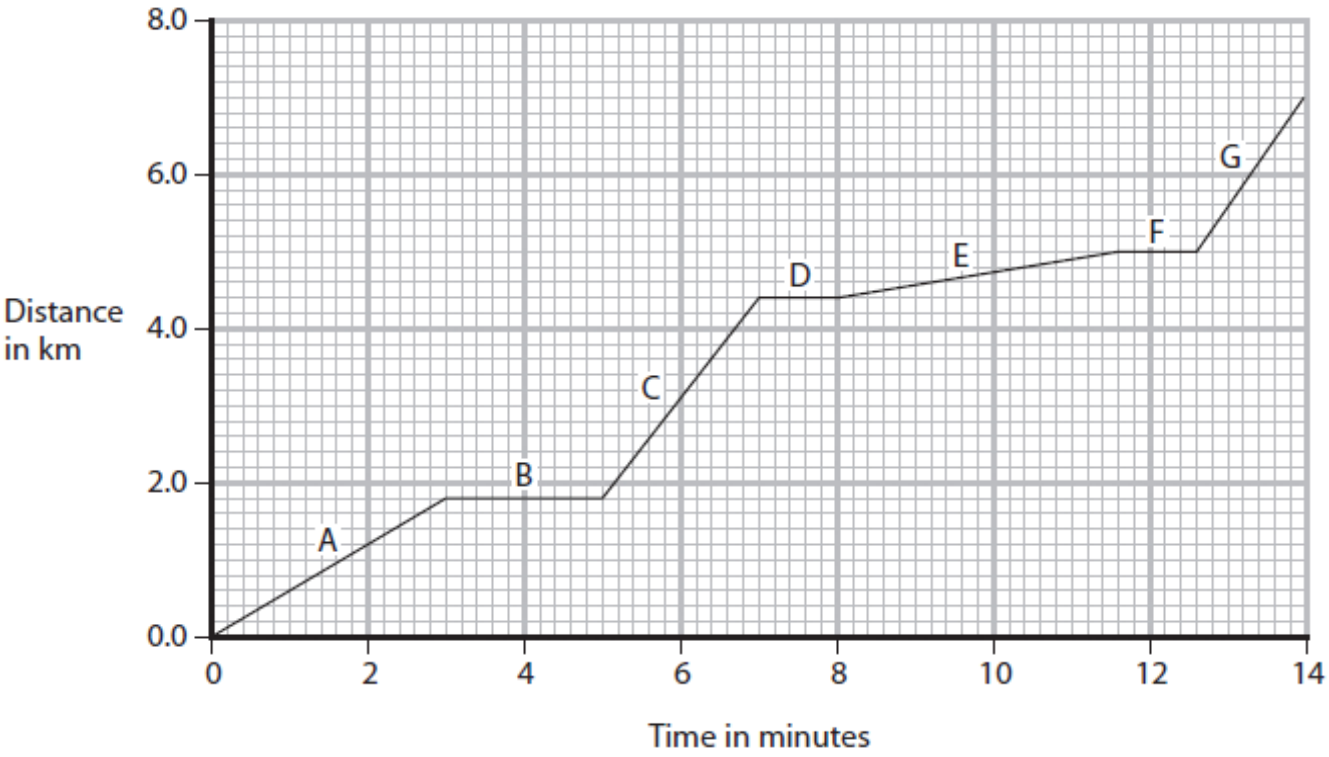
A bus transports passengers.



© Mikbiz/Shutterstock

The bus stops at certain points in its journey to let passengers get on or off the bus.

The distance-time graph shows part of the bus journey, with sections labelled A to G.



(i) Give the letters of the sections where the bus is stationary.

(1)

.....

(ii) Calculate the speed of the bus during section C of the journey.
Give your answer in m / s.

(4)

speed = ... m / s

(iii) Explain what the graph shows about the speed of the bus in section E compared with the speed of the bus in section A.

(2)

.....

.....

.....

.....

(Total for question = 7 mark)