GCSE Maths · OCR

Real Life and Distance Time Graphs

Exam Booklet

7 questions · 20 marks

Name

Date

Scan to check your answers

Opens this exam booklet online, with the worked solutions and instant marking of your working.

mathsgenie.co.uk

Name: _____

GCSE (1 – 9)

Real Life Graphs

Instructions

• Use **black** ink or ball-point pen.
• Answer all questions.
• Answer the questions in the spaces provided
– *there may be more space than you need.*
• Diagrams are **NOT** accurately drawn, unless otherwise indicated.
• You must **show all your working out.**

Information

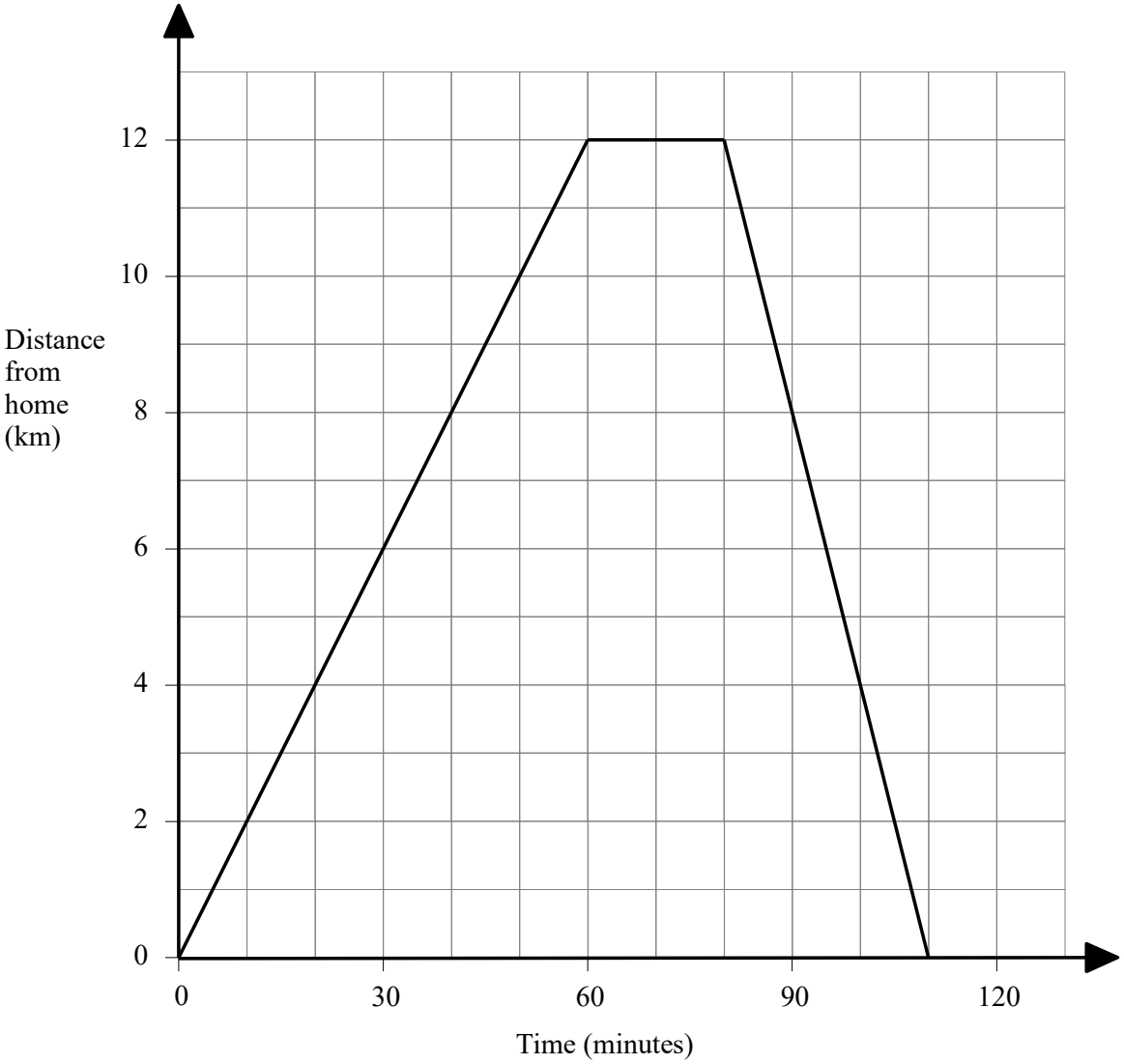
• The marks for each question are shown in brackets
– *use this as a guide as to how much time to spend on each question.*

Advice

• Read each question carefully before you start to answer it.
• Keep an eye on the time.
• Try to answer every question.
• Check your answers if you have time at the end

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1 Rebecca went on a bike ride.
This graph shows Rebecca's distance from home on her bike ride.



(a) How far had Rebecca travelled after 30 minutes?

….....….km
(1)

(b) After 60 minutes, Rebecca stopped for a rest.
For how many minutes did she rest?

….....….minutes
(1)

(c) How far did Rebecca travel in total?

….....….km
(1)

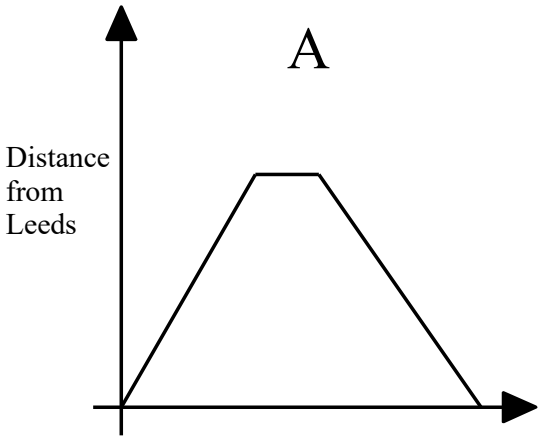
(Total for question 1 is 3 marks)

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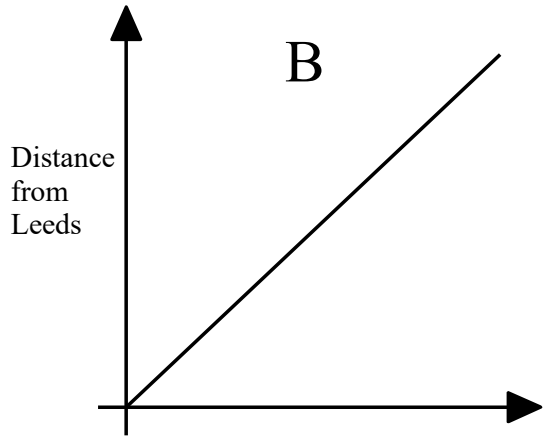
2 Jess drove from Leeds to Liverpool.
She stopped at a service station for 30 minutes on the way.

Which of these distance time graphs could represent Jess's journey?

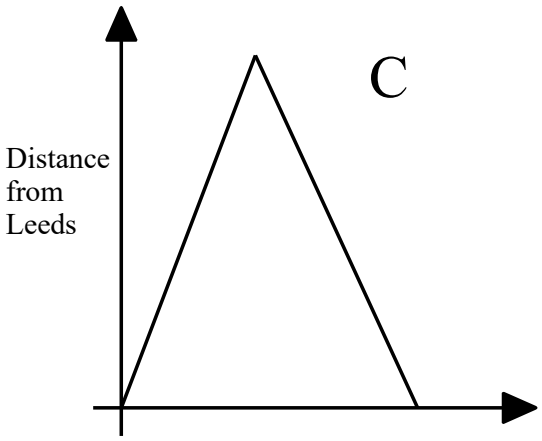
A



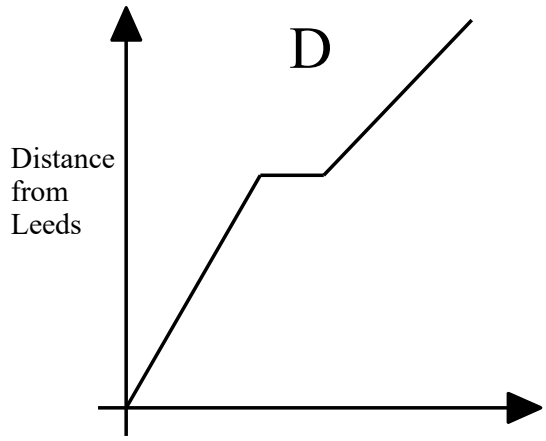
B



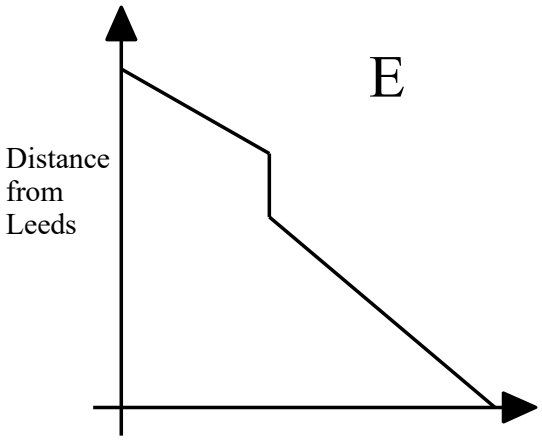
C



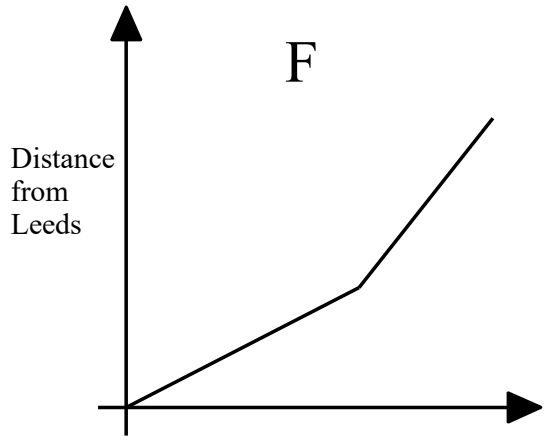
D



E



F



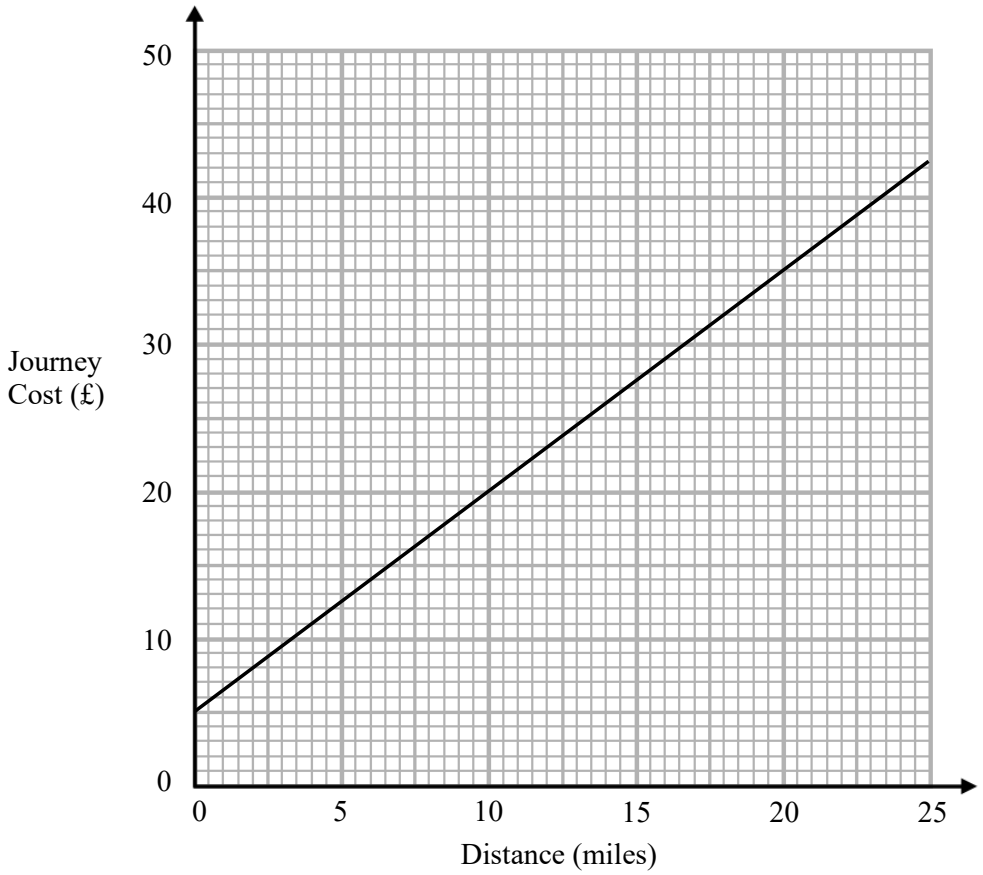
…….

(Total for question 2 is 1 mark)

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3 Bill is a taxi driver.

You can use this graph to find the cost of a taxi for different distances.



For each journey there is a fixed charge plus a charge for the distance.

(a) How much is the fixed charge?

£…..…

(1)

Bill makes two journeys.
The distance of one journey is 10 miles further than the other journey.

(b) Work out the difference between the two journey costs.

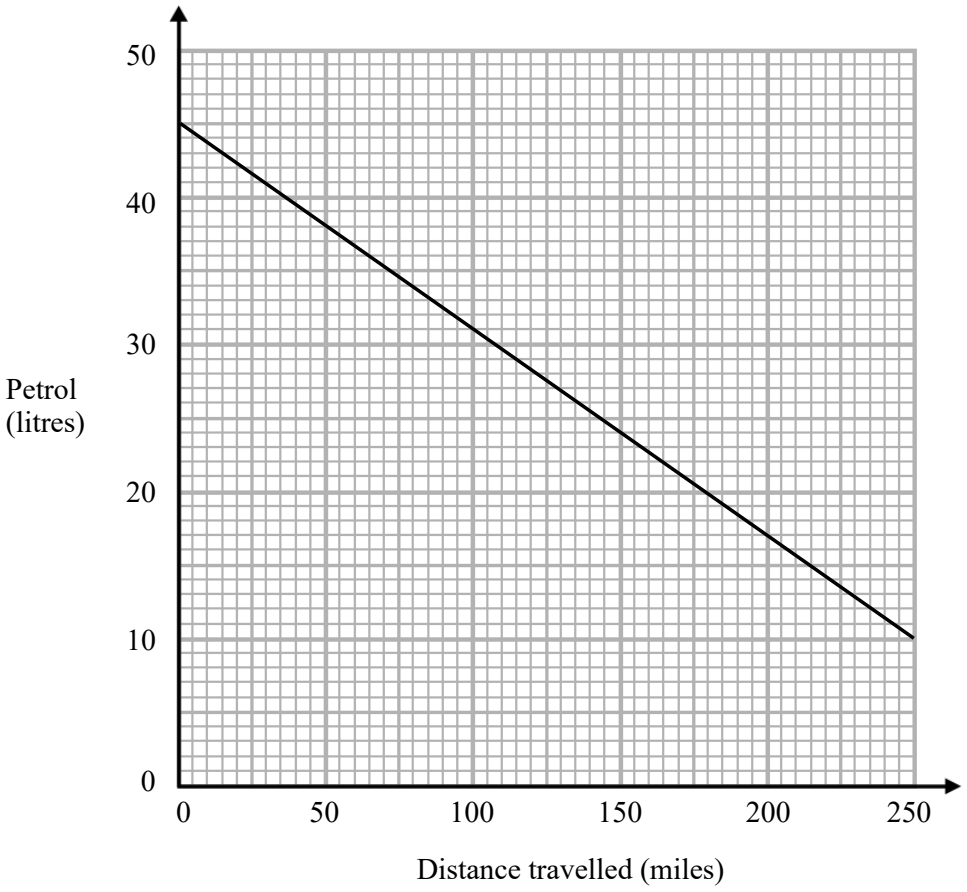
£…..…

(2)

(Total for question 3 is 3 marks)

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4 John draws a graph to show the amount of petrol his car used on a 250 mile journey.



(a) How much petrol was in John's car at the start of his journey?

….....…litres
(1)

(b) How many more miles can John's car travel before it runs out of petrol?

….....….miles
(1)

(c) What assumption have you made to calculate your answer to (b)?

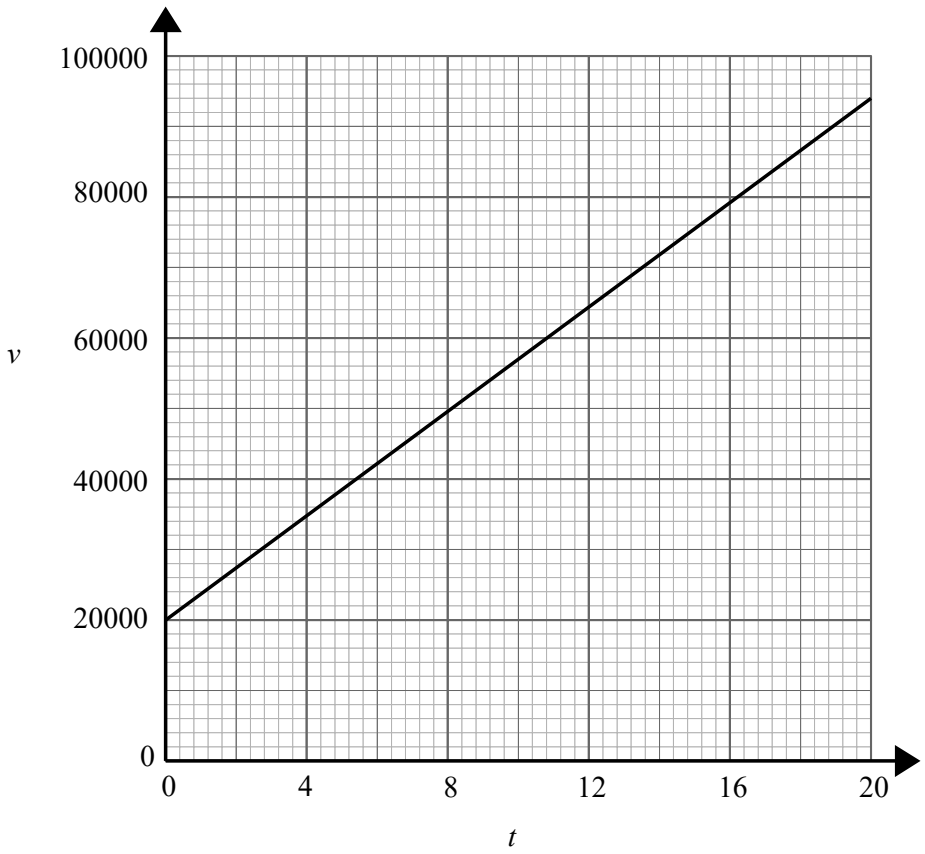
….....….....….....….....….....….....….....…

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

(Total for question 4 is 3 marks)

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5 Bernie is filling up a swimming pool.
The graph shows the volume v of water in the swimming pool at time t hours.



Work out the rate of that the water is flowing into the pool.

Give your answer in litres per hour.

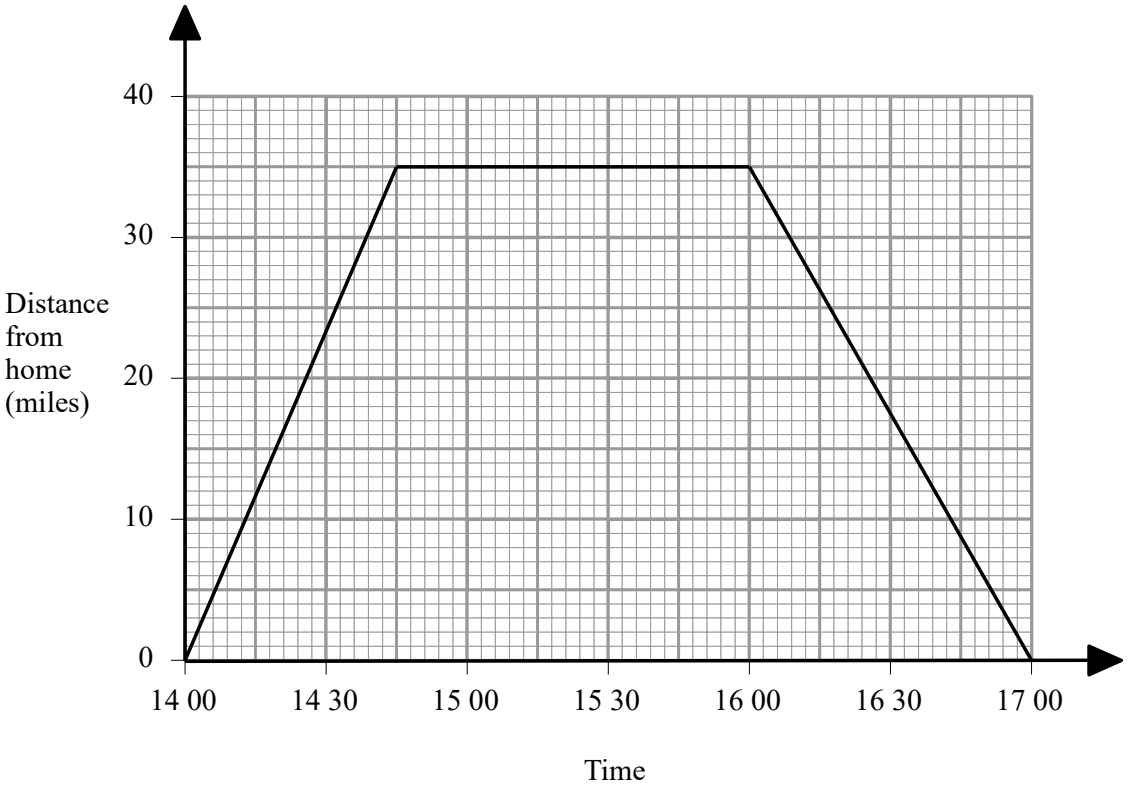
…..…… l/hr
(2)

(Total for question 5 is 2 marks)

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6 Emily drove to the beach. She stayed at the beach and then she drove back home.

Here is Emily's travel graph.



(a) For how many minutes did Emily stay at the beach?

….....…minutes
(1)

(b) What was Emily's average speed on her **journey to the beach**?

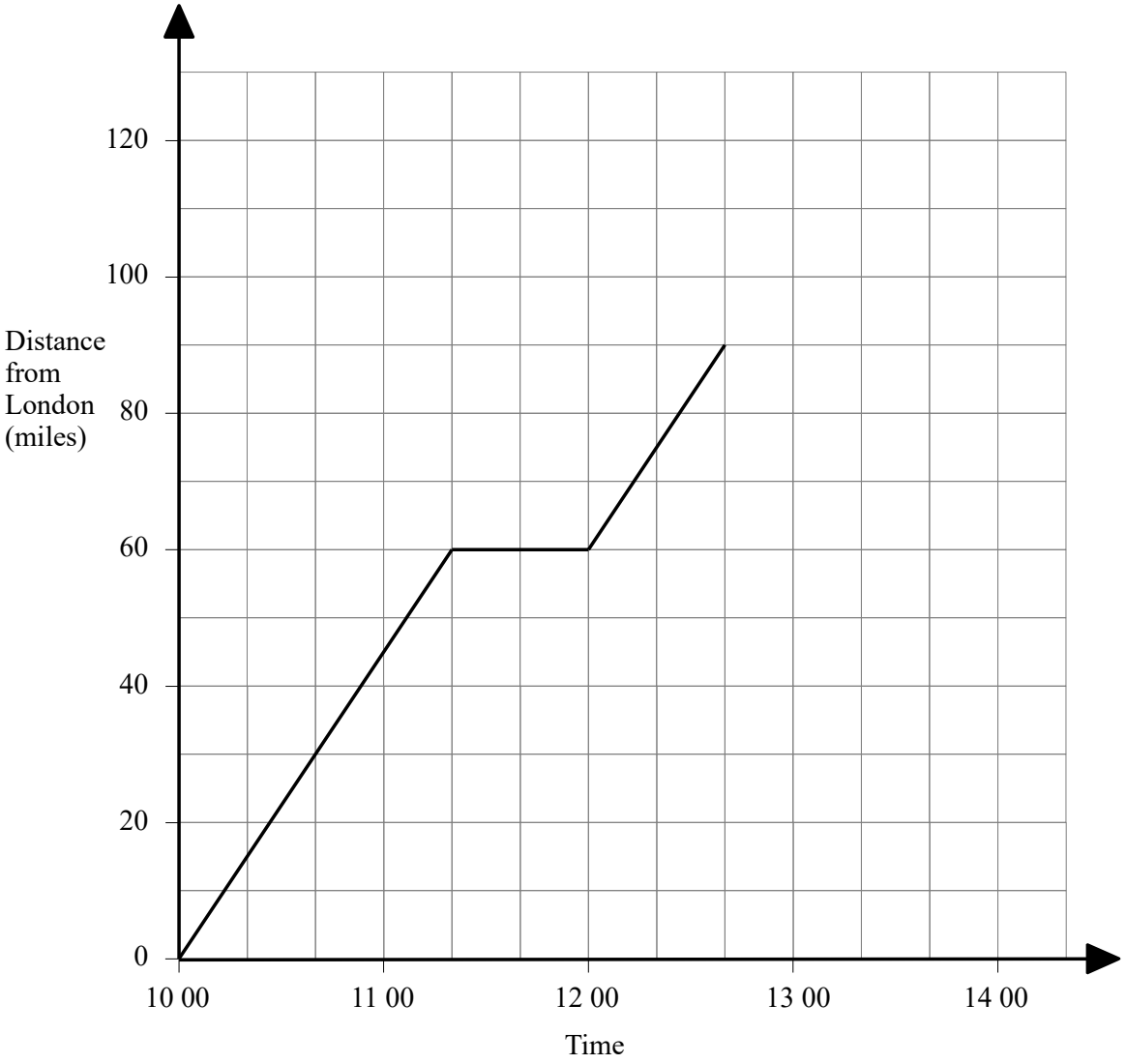
….....…miles/hour
(2)

(Total for question 6 is 3 marks)

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7 Dawn drove from London to Birmingham. She made one stop at a service station.

Here is part of Dawn's travel graph.



(a) For how many minutes did Dawn stop at the service station?

….....……minutes
(1)

(b) What was Dawn's average speed between London and the service station?

….....……miles/hour
(2)

(c) Birmingham is 120 miles from London.
Dawn arrived in Birmingham at 14 00.

Complete the graph.

(2)

(Total for question 7 is 5 marks)

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