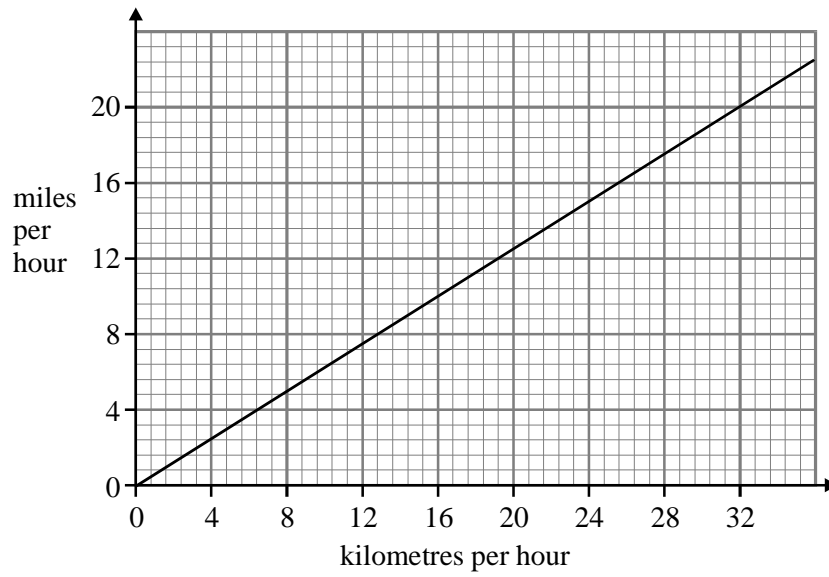


1. A conversion graph is shown.



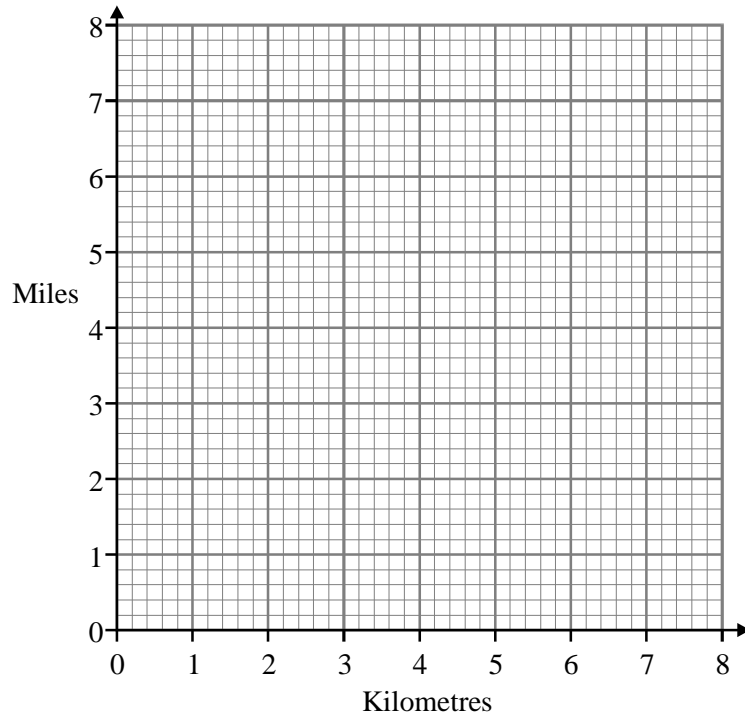
Use the graph to convert 96 kilometres per hour into miles per hour.

.....

Answer miles per hour
 (Total 3 marks)

2. Sue knows that 8 kilometres is the same as 5 miles.

(a) Plot this information on the grid to produce a conversion graph.



(2)

(b) Use your graph to convert 4.6 miles into kilometres.

.....

Answer km

(2)

(c) Sue has to travel 40 km.
How many miles is this?

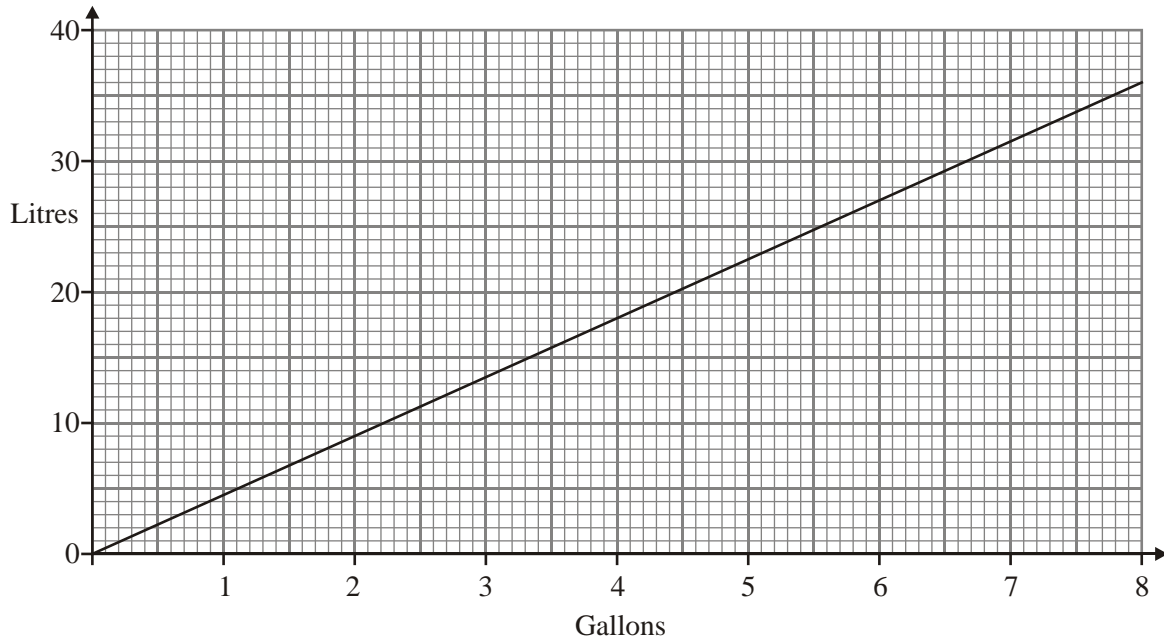
.....

Answer miles

(2)

(Total 6 marks)

3. This is a conversion graph for gallons and litres.



(a) Use the graph to convert

(i) 4 gallons to litres,

Answer litres

(ii) 30 litres to gallons.

Answer gallons

(2)

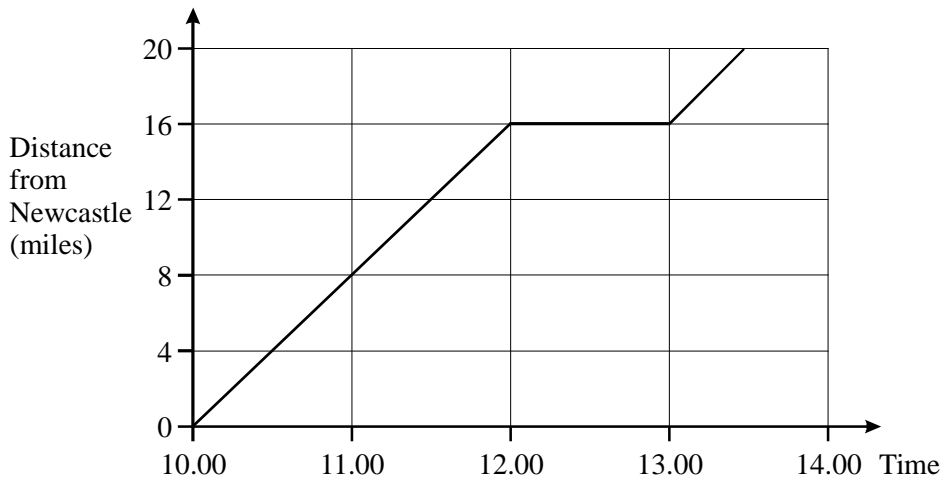
(b) 50 gallons is approximately 225 litres.
Explain how you can use the graph to show this.

.....

(1)

(Total 3 marks)

4. Wayne cycles from Newcastle to Ashington, a distance of 20 miles. The diagram shows the distance-time graph of his journey.



- (a) How far from Newcastle is Wayne at 11.00?

Answer miles

(1)

- (b) Describe what is happening between 12.00 and 13.00

.....

(1)

- (c) How far does Wayne travel in the first 2 hours of his journey?

Answer miles

(1)

- (d) What is Wayne's average speed over the first 2 hours of his journey?

.....

Answer mph

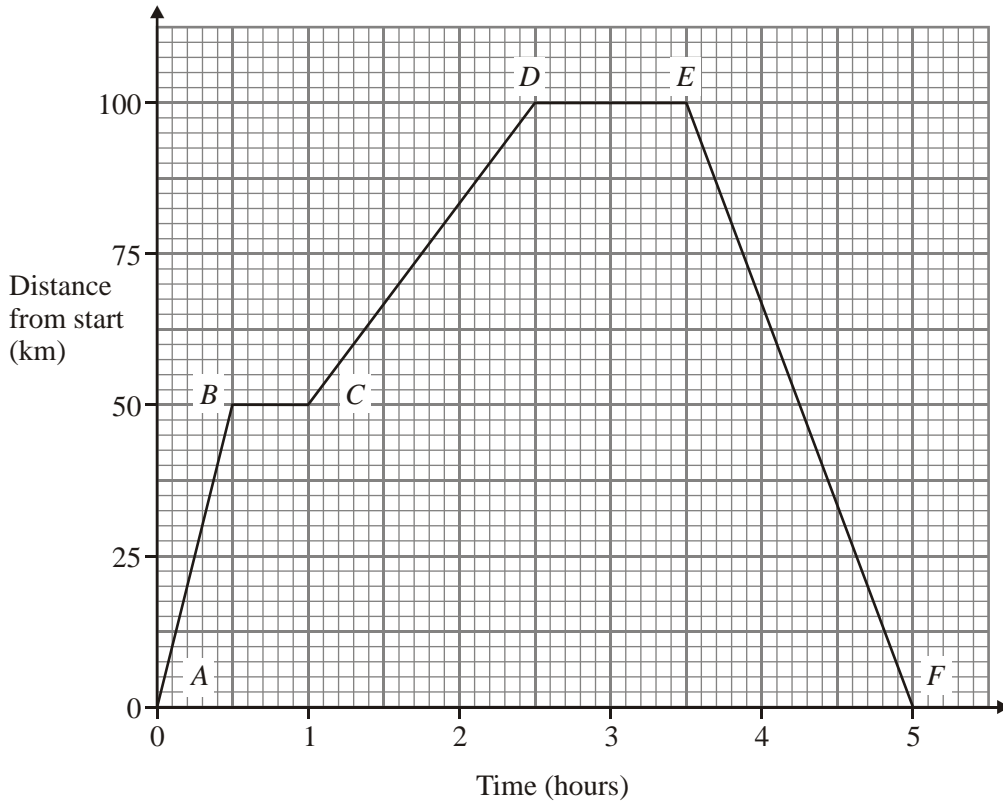
(2)

- (e) Darren travels from Ashington to Newcastle by bus. He leaves Ashington at 10.00 and arrives in Newcastle at 11.00. On the diagram draw a possible distance-time graph of Darren's journey.

(1)

(Total 6 marks)

5. The graph shows a train journey.



(a) What is happening from *B* to *C*?

.....

(1)

(b) Which part of the journey is faster, from *A* to *B* or from *C* to *D*?
 Explain your answer.

.....

(1)

(c) How far did the train travel altogether?

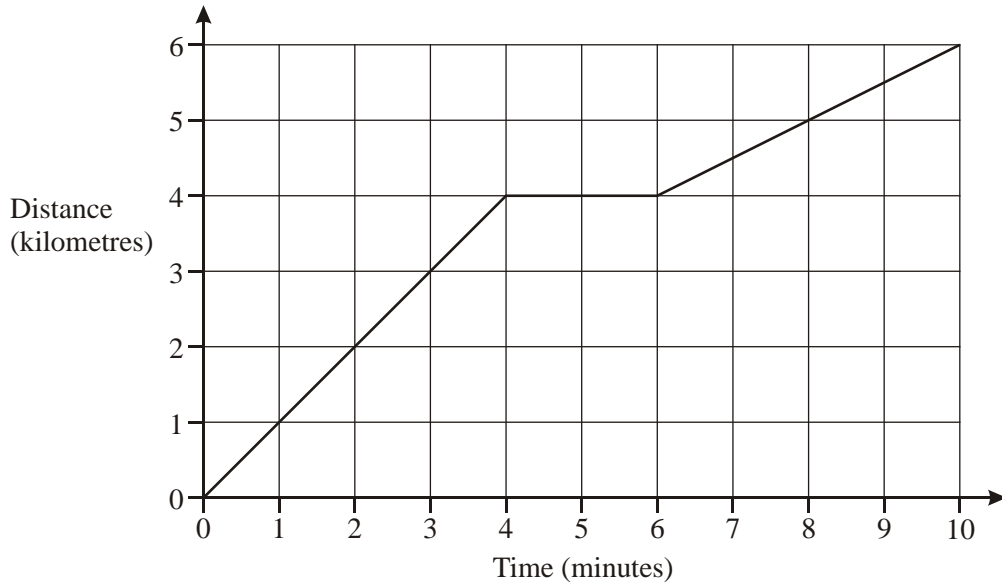
.....

Answer km

(2)

(Total 4 marks)

6. The distance-time graph shows the journey of a train between two stations. The stations are 6 kilometres apart.



- (a) During the journey the train stopped at a signal. For how long was the train stopped?

.....

Answer minutes

(1)

- (b) What was the average speed of the train for the **whole** journey? Give your answer in kilometres per hour.

.....

.....

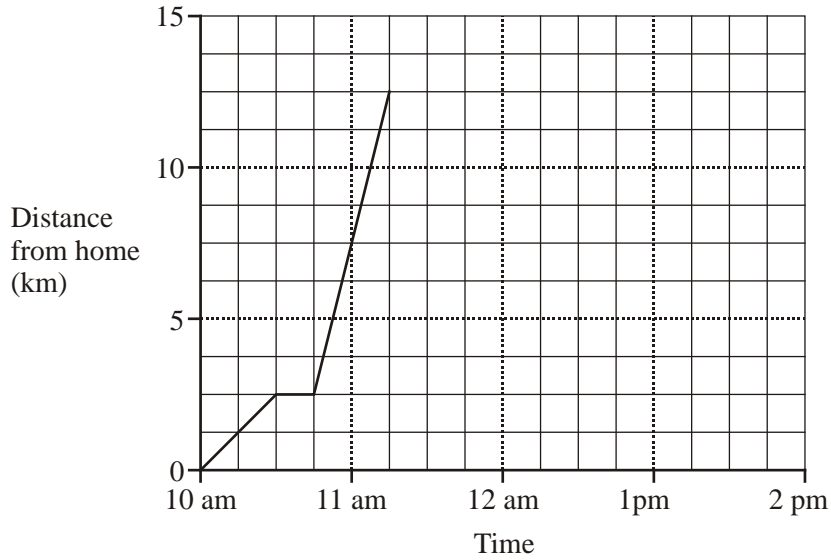
.....

Answer kilometres per hour

(2)

(Total 3 marks)

7. Mr Smith leaves the home at 10 am to go to the shopping mall.
 He walks to the station where he catches a train.
 He gets off the train at the mall.
 The travel graph shows his journey.



After shopping Mr Smith goes home by taxi.
 The taxi leaves the mall at 1 pm and arrives at his home at 1.45 pm.

- (a) Complete the travel graph.

(2)

- (b) Calculate the average speed of the taxi.

.....

.....

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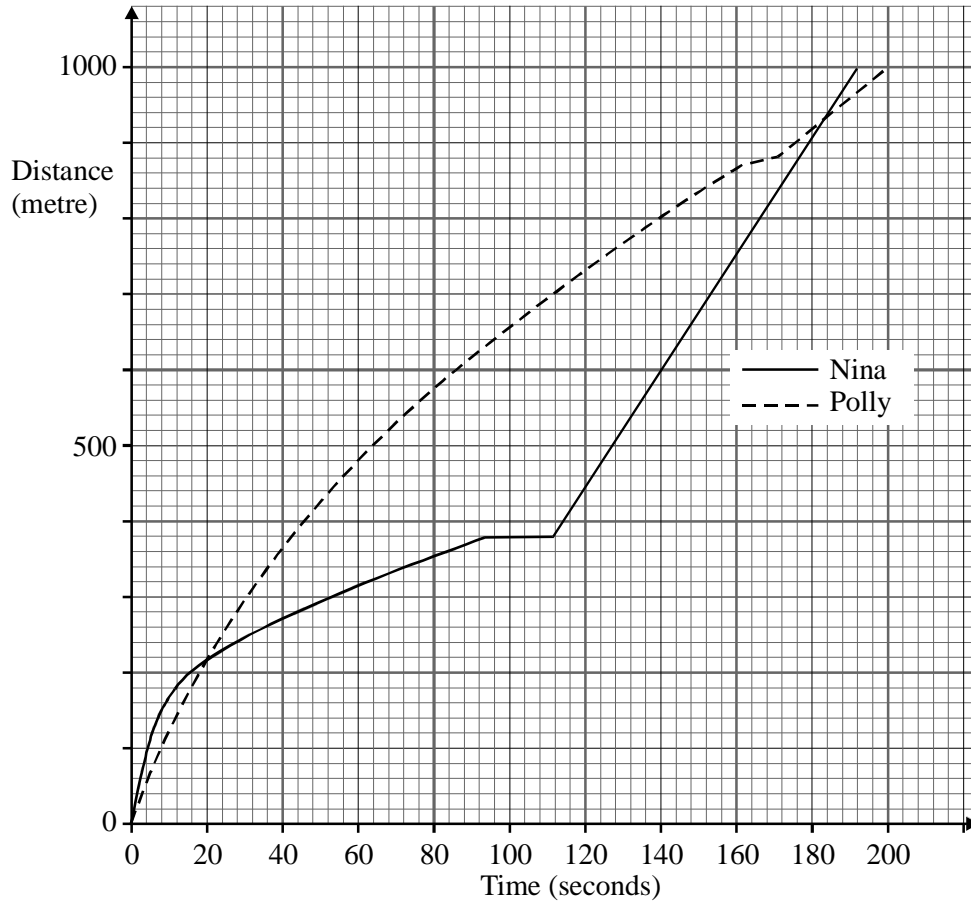
.....

Answerkm per hour

(2)

(Total 4 marks)

8. The graph illustrates a 1000 metre race between Nina and Polly.



(a) Who was in the lead 10 seconds after the start of the race ?

Answer

(1)

(b) Describe what happened 20 seconds after the start of the race.

.....

(1)

(c) Describe what happened to Nina 90 seconds after the start of the race.

.....

(1)

(d) Who won the race?

Answer

(1)

(Total 4 marks)