Travel Graphs

Name:	Class:	Date:

Mark	/ 14	%

1) Julia drove from her home in Derby to London. She went shopping and then drove back home.

Find

a) the distance from Derby to London.

b) the time she spent shopping in London.

c) the average speed on her journey home.

Leave answers to nearest whole number where necessary.

[1]

2) Hazel went on a cycle ride. The travel graph shows Hazel's distance from home on this cycle ride.

Find

a) how far Hazel cycled after 10 minutes?

b) how long she took a rest?

c) how far she cycled in total on her ride?

Leave answers to nearest whole number where necessary.

[1]

3) The travel graph below shows Cody's journey from his home to his school and back.

Find

a) the distance to his school.

b) the speed for the first 20 minutes of his journey.

c) the speed on his journey home.

Leave answers to nearest whole number where necessary.

[1]

4) The distance-time graph below shows the journey a business man made from London to Liverpool via Leicester and the direct return journey back to London.

Find

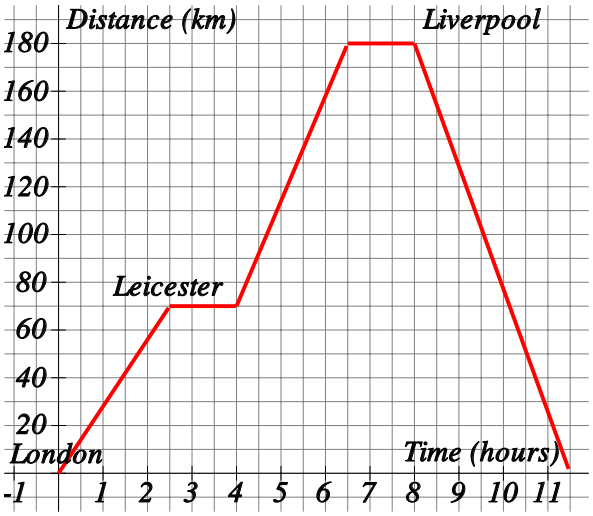
a) the distance to Leicester.

b) the time he spent in Leicester.

c) the speed he travelled from Leicester to Liverpool.

d) his average speed over the whole journey.

Leave answers to nearest whole number where necessary.



[1]

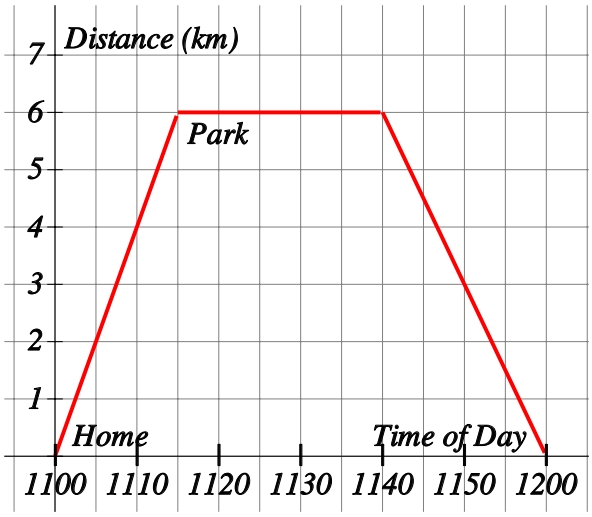
5) Finn cycled from his home to the park where he took a rest. He then cycled back home. Below is a distance-time graph for Finn"s complete journey.

Find

a) the time he arrived at the park.

b) the distance to the park.

c) how long he rested at the park.



[1]

6) Here is a travel graph of Reece's journey from his house to the library and back to his house.

a) How far is Reece from his house at 1130?

b) At what time did Reece arrive at the library?

c) How long did Reece spend at the library?

d) At what time did Reece arrive back at his house?

Leave answers to nearest whole number where necessary.

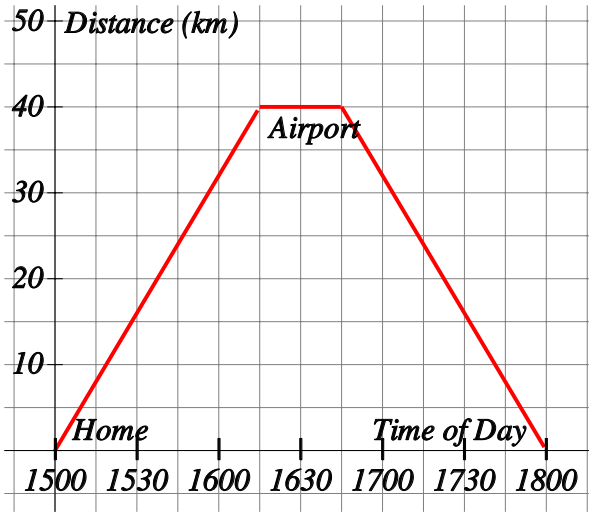
[1]

7) Beatrice drove from her home to the airport to collect her parents. She then drove home. Here is the distance-time graph for Beatrice"s complete journey.

a) What is the distance to the airport?

b) For how many minutes did Beatrice wait at the airport?

c) Work out Beatrice's average speed for the journey home in km/h.



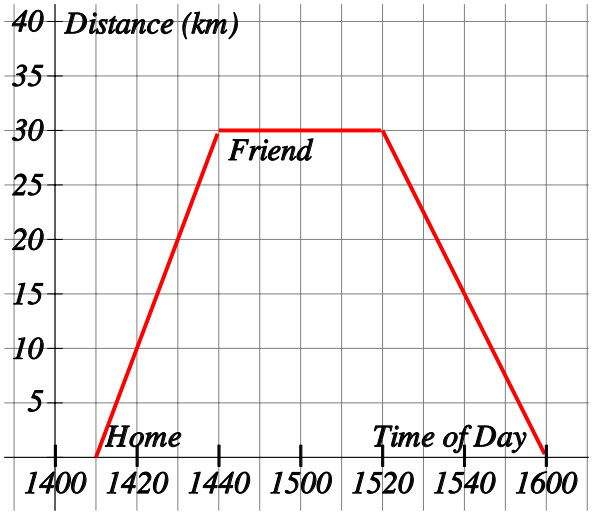
[1]

8) Kieran travelled 30 km from his home to his friend's house. Kieran then spent some time at his friend's house before returning home. Here is the travel graph for Kieran's journey.

a) What time did Kieran leave his home?

b) For how many minutes did Kieran spend at his friend's house?

c) Work out Kieran's average speed for the journey home in km/h.



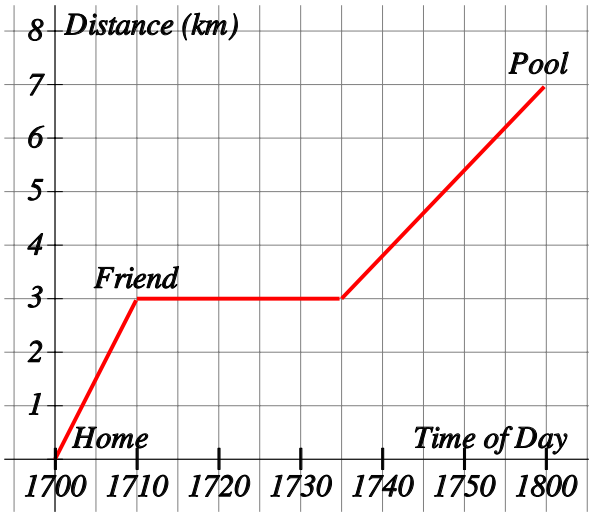
[1]

9) Jackson left home and cycled to the swimming pool. On the way to the swimming pool he stopped to talk to a friend. Here is the distance-time graph for his complete journey.

a) For how many minutes did James stop and talk to his friend?

b) What is the distance from Jackson' home to the swimming pool?

c) What is the average speed of the second part of his journey?



[1]

10) Here is a travel graph of Alice's journey from her house to the library and back to her house.

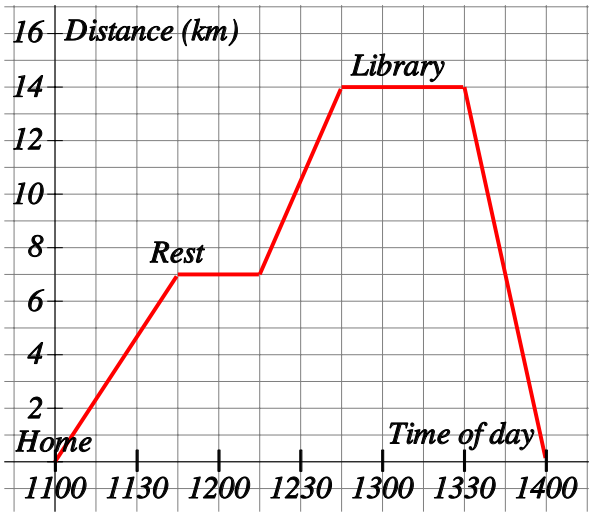
a) How far is Alice from her house at 1145?

b) Find Alice's speed between her rest and the library?

c) Work out the total distance of Alice's journey?

d) Calculate the average speed of her journey?

Round your answers to 1 decimal place where necessary.



[1]

11) The speed-time graph below shows a non-stop service of the ReallySlow train travelling from Bangkok to Chiang Mai.

Find

a) the time to accelerate to a constant speed?

b) the constant speed of the train?

c) the acceleration of the train at the start of the journey?

Leave answers to nearest whole number where necessary.

[1]

12) The speed-time graph below shows a non-stop service of the VerySlow train travelling from Bangkok to Chiang Mai.

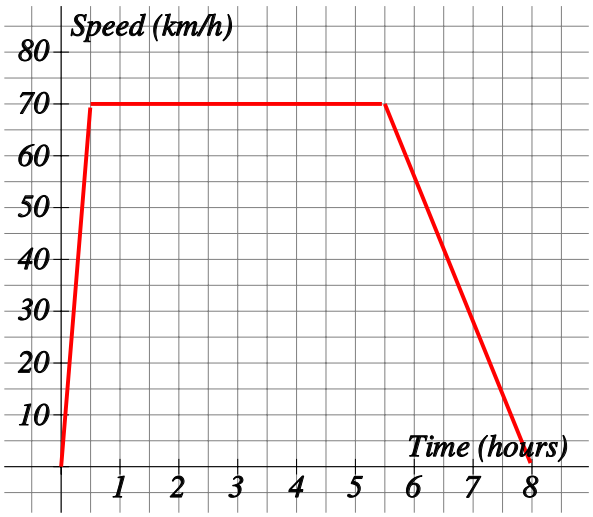
Find

a) the acceleration of the train at the start of the journey?

b) the deceleration of the train at the end of the journey?

c) the total distance travelled by the train?

Leave answers to nearest whole number where necessary.



[1]

13) The speed-time graph below shows the journey of a train between stations.

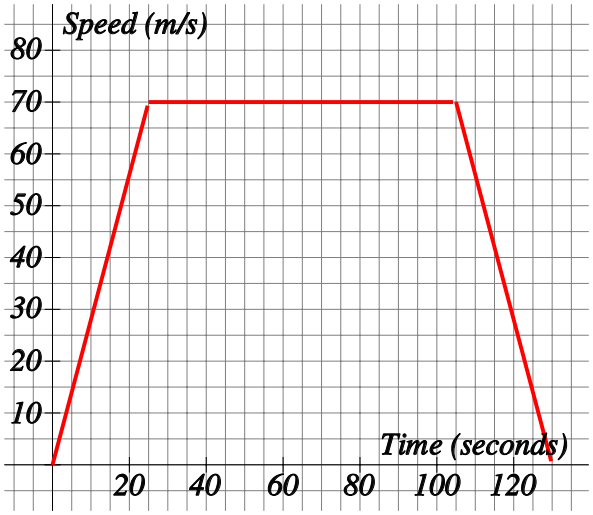
Find

a) the time to accelerate to a constant speed?

b) the constant speed of the train?

c) the acceleration of the train at the start of the journey?

Round your answers to 1 decimal place where necessary.



[1]

14) The speed-time graph below shows the journey of a train between stations.

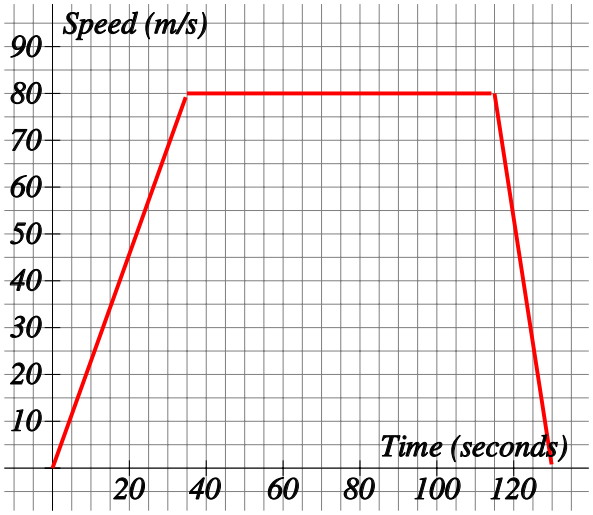
Find

a) the acceleration of the train at the start of the journey?

b) the deceleration of the train at the end of the journey?

c) the total distance travelled by the train in kilometers?

Round your answers to 1 decimal place where necessary.



[1]

Solutions for the assessment Travel Graphs

1) a) 70 km b) 5.5 hours c) 35 km/h

2) a) 7 km b) 25 mins c) 26 km

3) a) 12 km b) 36 km/h c) 24 km/h

4) a) 70 km b) 1.5 hrs
c) 44 km/h d) 31 km/h

5) a) 1115 hours b) 6 km c) 25 mins

6) a) 10 km b) 1300 hours
c) 30 mins d) 1400 hours

7) a) 40 km b) 30 mins c) 32 km/h

8) a) 1410 hours b) 40 mins c) 45 km/h

9) a) 25 mins b) 7 km c) 10 km/h

10) a) 7 km b) 14 km/h
c) 28 km d) 16 km/h

11) a) 1.5 hours b) 90 km/h c) 60 km/h^2

12) a) 140 km/h^2 b) 28 km/h^2 c) 455 km

13) a) 25 secs b) 70 m/s c) 2.8 m/s^2

14) a) 2.3 m/s^2 b) 5.3 m/s^2 c) 8.4 km