



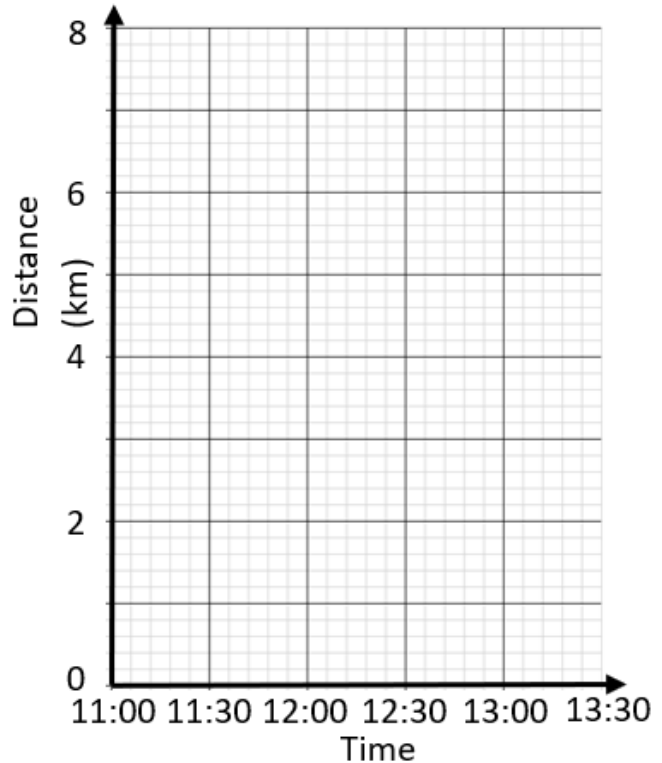
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Distance-Time Graphs

Question 1

Katie travels to her aunties house from her home. She sets off at 11am. She walks to the park which is 4km from her home. This takes her 1 hour. She stays at the park for 30 minutes. She then continues from the park to her aunties house. She walks at an average speed of 4 km/hr and arrives at her aunties house at 13:30.

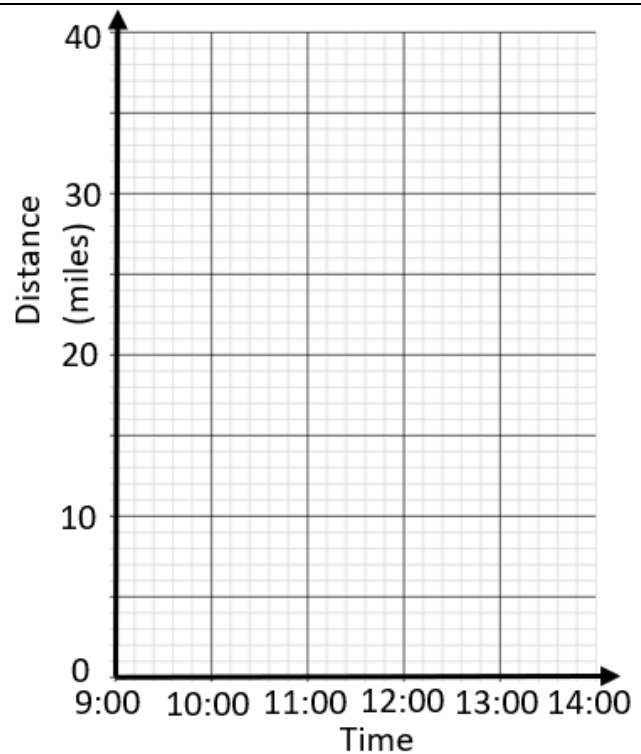
a. Complete the distance-time graph.



Question 2

Derek is travelling to a meeting. It is snowing. He sets off at 9:00am and travels at a constant speed of 20 miles per hour. He spends 2 hours at the meetings. It has stopped snowing after the meeting. He travels home at an average speed of 30 mph.

a. Complete the distance-time graph





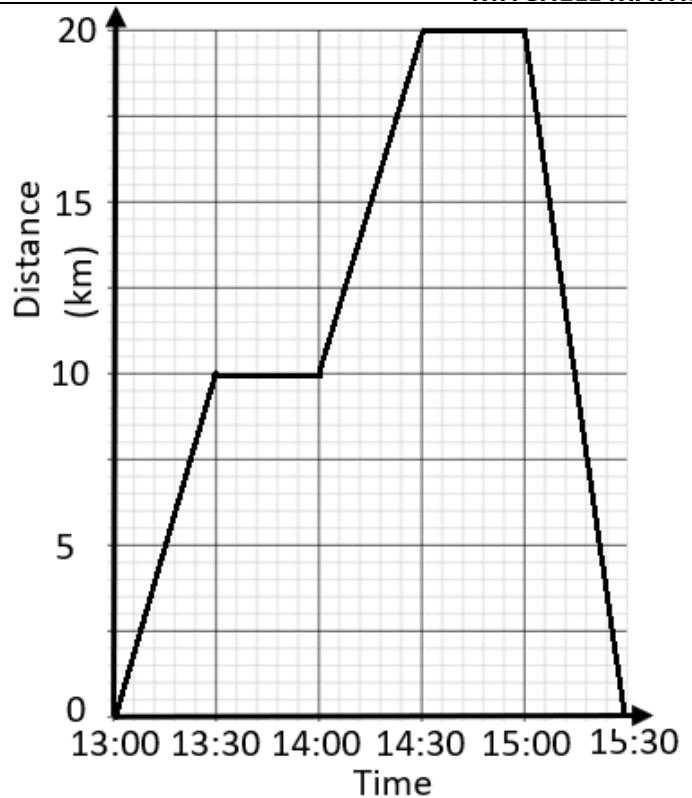
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Question 3

The graph shows the distance-time graph of a safari tour.

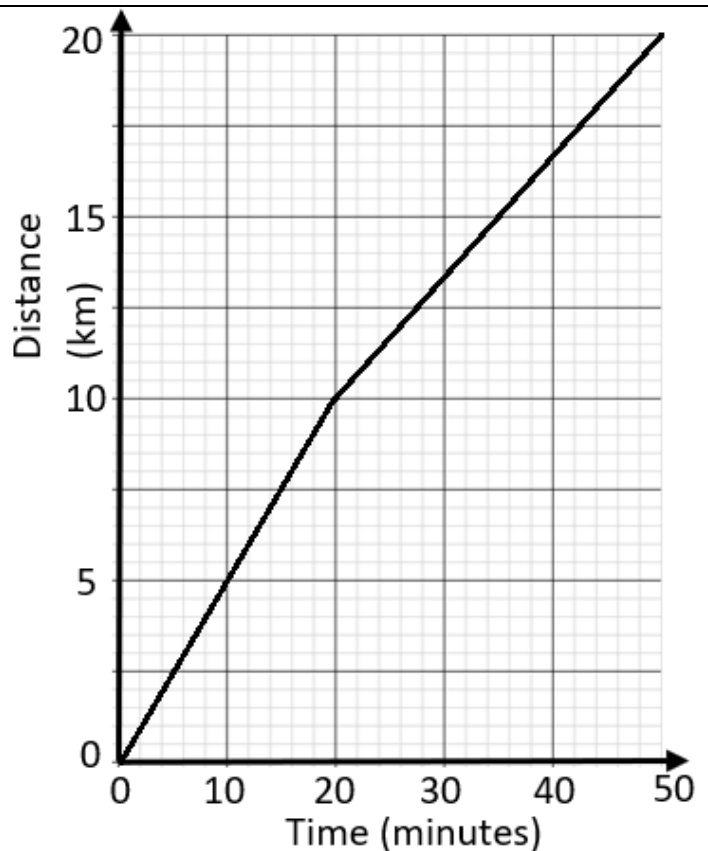
- a. Between what times was the safari stationary?
- b. What was the average speed of the safari after 15:00?



Question 4

The distance-time graph shows the speed of the cyclist over a 20km race. He travels at a constant speed for the first 10km and then slows down over the second 10km.

- a. Calculate the average speed of the cyclist over the whole race.
- b. Calculate the difference in the speed of the cyclist over the first half and second half of the race.





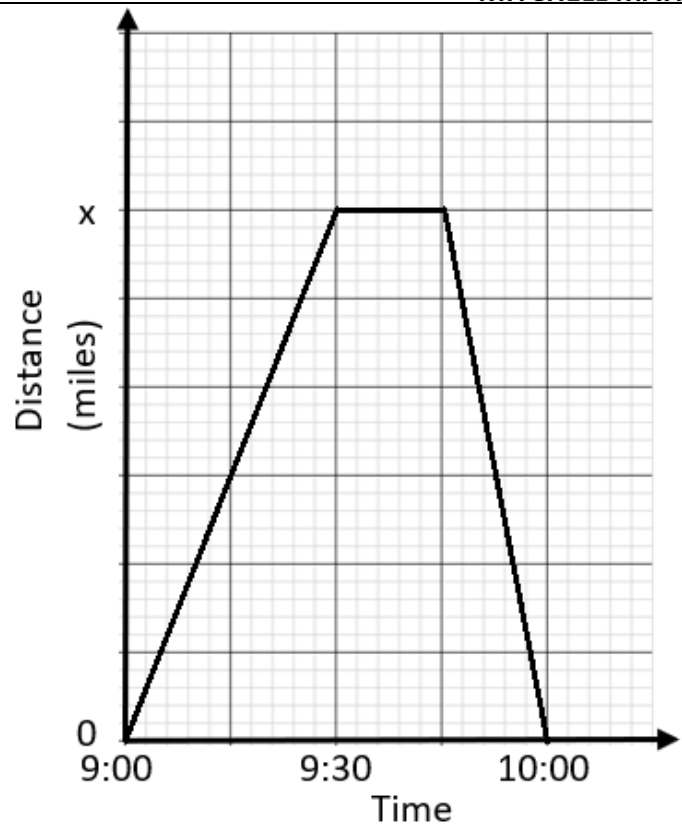
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Question 5

Samantha needs to change a tyre on her car so she drives to the nearest garage. Once the tyre is change she travels home at 60mph.

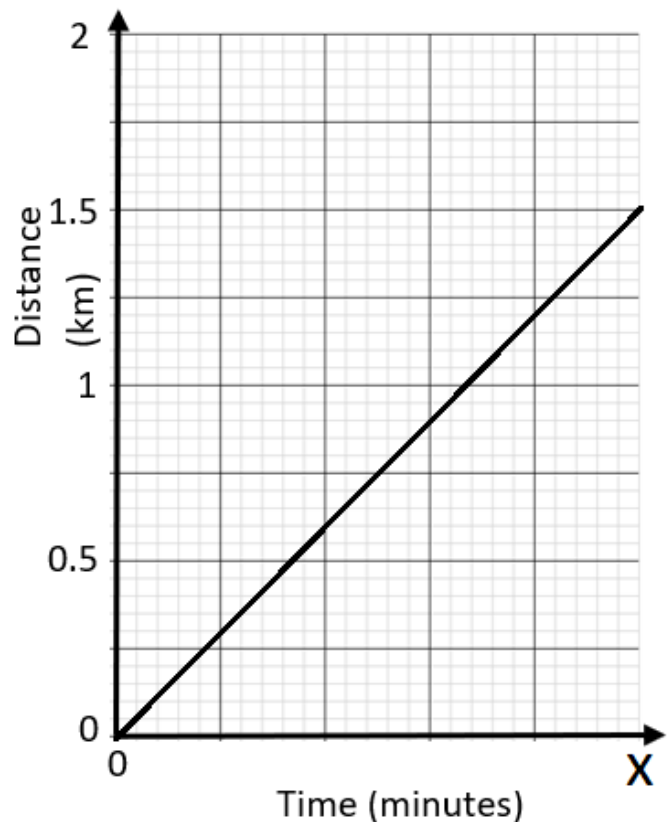
- a. How long did Samantha spend at the garage getting her tyre changed?
- b. Calculate the value of x .
- c. Calculate her speed on the way to the garage.



Question 6

The distance-time graph shows a person running 1.5km. The person runs at a rate of 18 km/hr.

- a. Find the value of x .
- b. If the runner continues at the same pace calculate the time it would take them to complete 6km.





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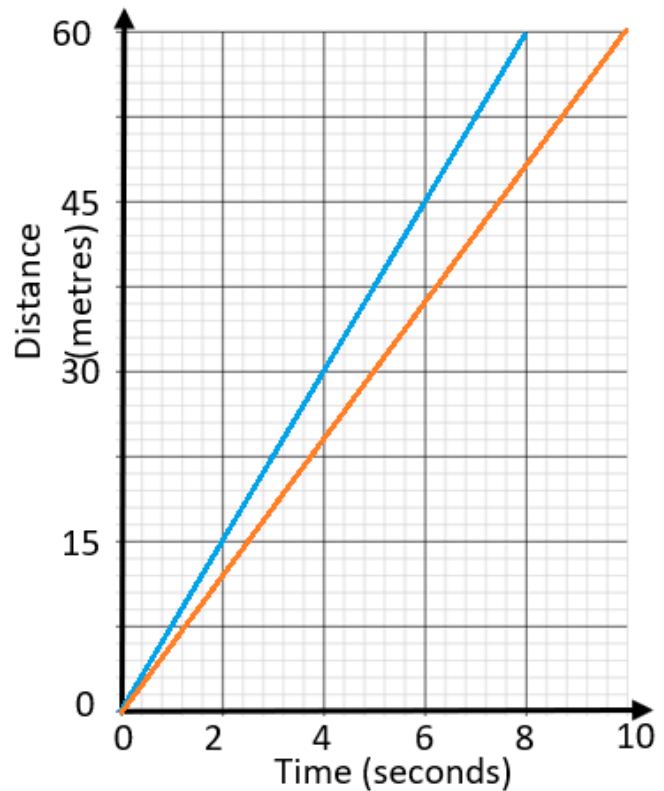
Question 7

The distance-time graph shows the time it takes two runner to sprint 60m. George is shown in blue and William is shown in orange.

- a. Which of the sprinters finished first?

- b. What was the difference in time between the two sprinters?

- c. What average speed did George sprint at?



Question 8

The graph shows a test a company carried out on a solar powered vehicle.

- a. Describe the motion of the vehicle during the test.

- b. Calculate the maximum speed the vehicle reached during the test.

- c. Calculate the difference between the maximum and minimum speed.

