

CREATE TRAVEL GRAPHS

Graphs are pictures that tell a story. Use your understanding of graphs to complete these tasks. Use the widget [Graphing a hilly journey](#) provided by HOTmaths (www.hotmaths.com.au/FreeActivities) to help you link journeys and graphs.

TASK 1 Create a graph from data

Tina leaves home and drives for two hours to her destination, 180 kilometres away. She stops for two hours then drives 20 kilometres further on for half an hour. Tina then drives back towards home for one hour, covering 100 kilometres.

Step 1: Summarise the facts

Use the story to create points for your graph.

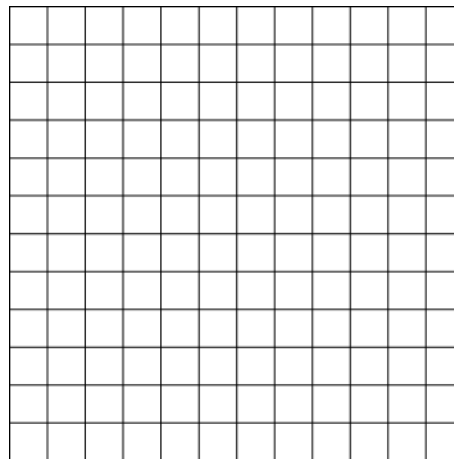
- At the beginning Tina is at home: time = 0, distance =
- After 2 hours, 180 km away: time = , distance = 180
- Stops for 2 hours: time = 4 and distance is still .
- Drives *on* 20 km in half an hour: time = and distance is
- Drives *back towards home* for 1 hour covering 100 km: time = and distance =

Step 2: Choose scales for the axes

Farthest distance from home = _____ kilometres

Number of hours for the journey = _____ hours

Make a scale on each axis that will allow you to show the time and maximum distance.



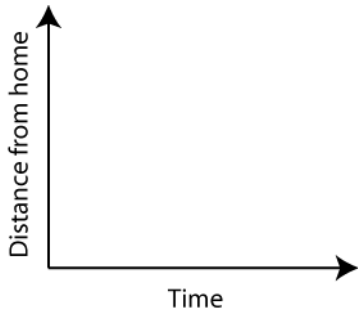
TASK 2 Complete the graph

- Label the axes and create a title for the whole graph.
- Plot your points, using the information in step 1.
- Create your graph by joining the points.
- Check that your graph tells the correct story.

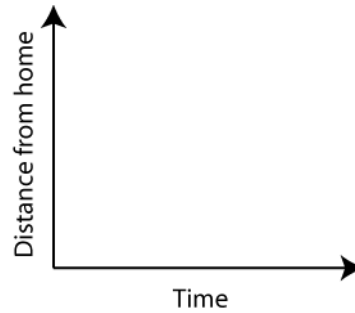
TASK 3 Sketch a possible answer

Sketch a quick travel graph that fits each description given below. Do not put a scale on either axis. There are many possible graphs for each description.

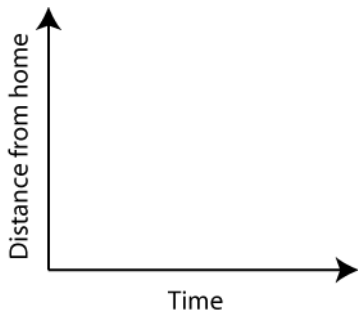
1 Drive away from home then back home.



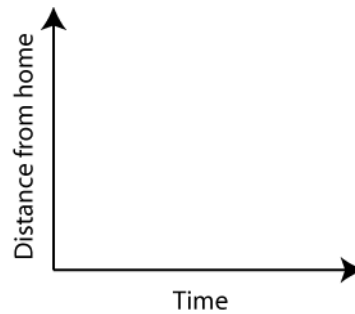
2 Drive towards home then away from home.



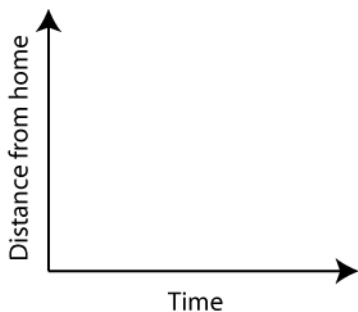
3 Drive away from home then get out and walk halfway back home.



4 Move away from home, rest for a while then keep moving away from home.



5 Start at a friend's place, go home, sleep then go on a long journey.



6 Walk from home to the train station. Wait a short time for the train. Catch the train to the airport. Wait for 2 hours at the airport then fly to a city not far from your city.

