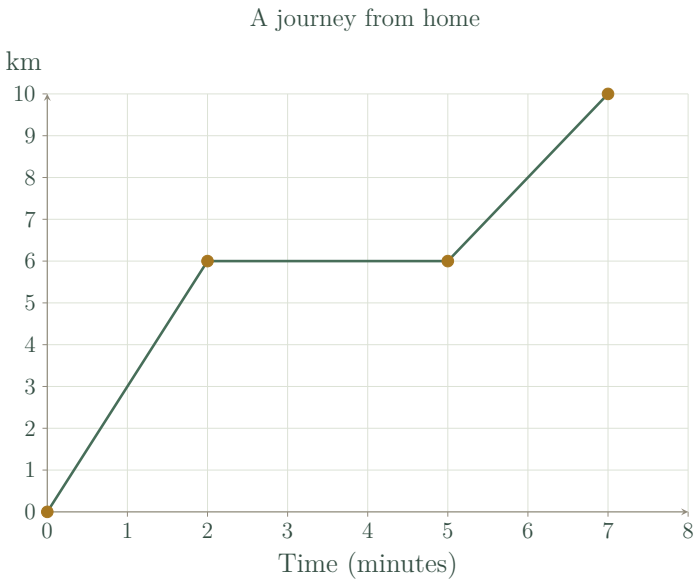
Interpreting authentic graphs and changes between variables

6 questions | 13 marks

Equivalent correct methods earn the corresponding marks.

1. Using the journey log, give the distance from home at minute 7. [2 marks]



Journey log supplied for this example

Time (min)	Distance from home (km)
0	0
2	6
5	6
7	10

Read $(7, 10)$.

Answer: 10 km.

2. How much farther from home is the traveller at minute 7 than at minute 5? [2 marks]

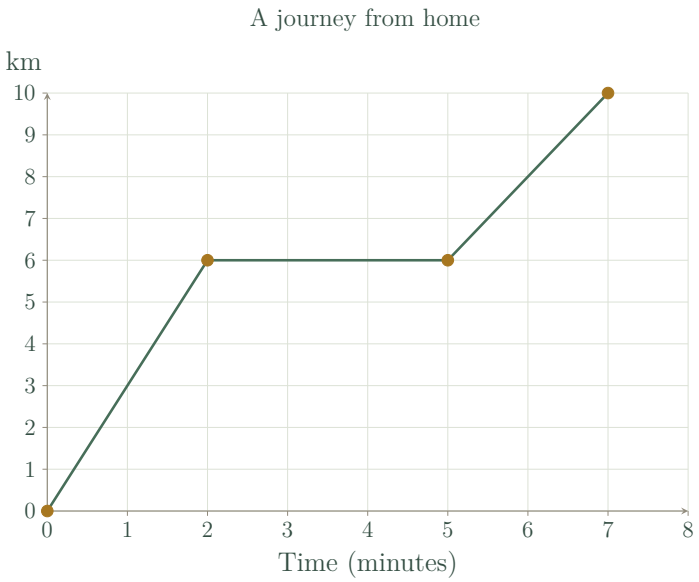
Journey log supplied for this example

Time (min)	Distance from home (km)
0	0
2	6
5	6
7	10

$10 - 6 = 4$.

Answer: 4 km.

3. For how long is the supplied journey graph flat? [2 marks]



It is flat from minute 2 to minute 5.

$5 - 2 = 3$.

Answer: 3 minutes.

4. A graph has time in hours horizontally and distance in kilometres vertically. Explain $(2, 90)$. [2 marks]

Use the horizontal label for the first coordinate.

Answer: After 2 hours the recorded/modelled distance is 90 km.

5. Use the cooling readings to find the total temperature fall in six minutes. [2 marks]

Supplied cooling readings

Time (min)	Temperature (°C)
0	80
2	65
4	55
6	50

$80 - 50 = 30$.

Answer: 30°C.

6. Plant height was recorded for four weeks. Why may continuing the same line to week 30 be unreliable? [3 marks]

The prediction assumes the same growth continues far beyond the observations.

Answer: Later growth may have a different rate, and the four-week data do not establish long-term behaviour.