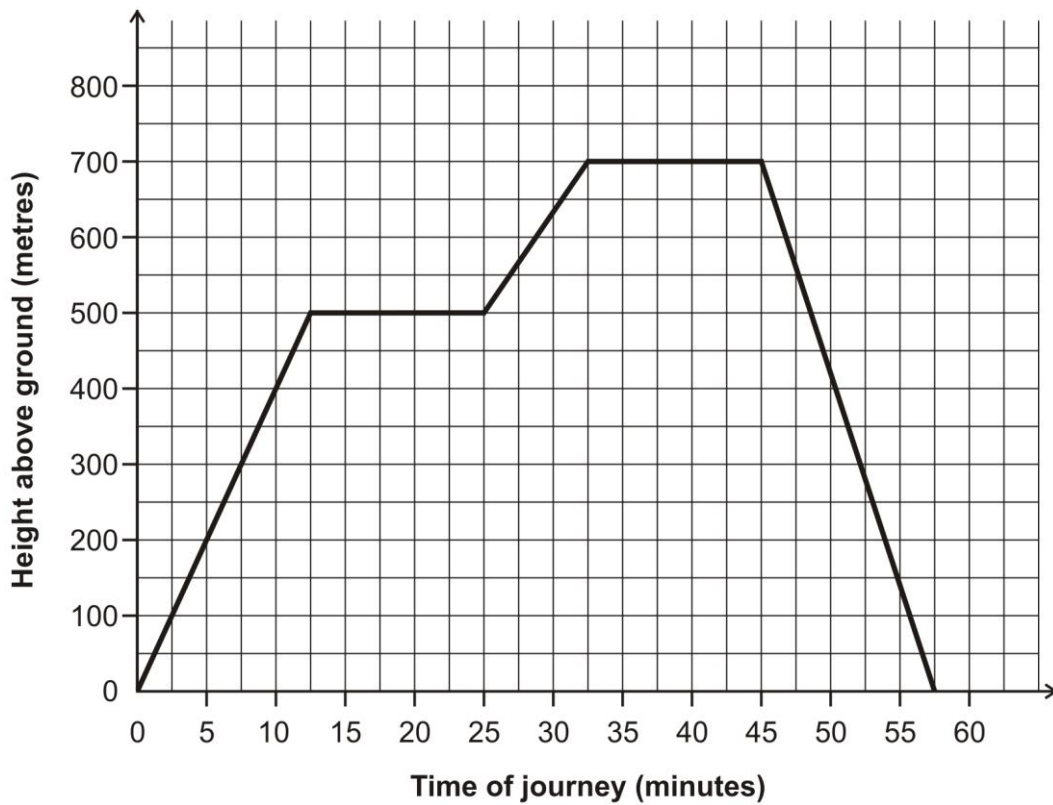


Q1.

The graph shows the journey of a hot-air balloon.



- (a) At what **height** above the ground was the balloon after **10 minutes**?

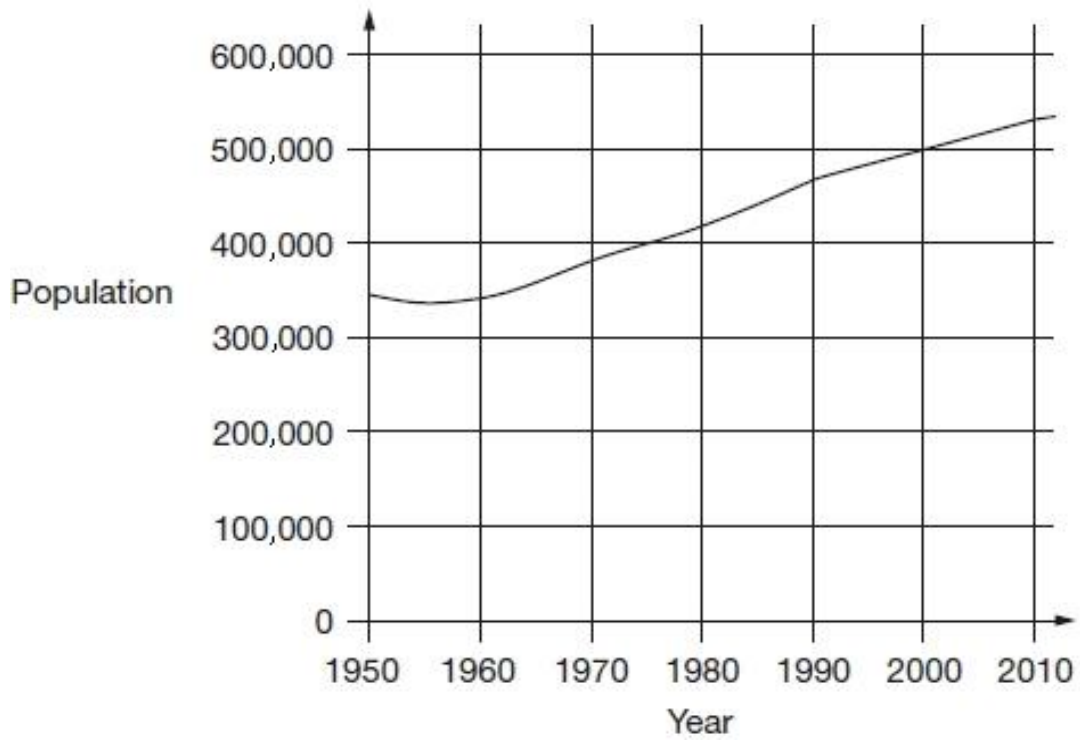
1 mark

- (b) After how many **minutes** of the journey did the balloon begin to go down?

1 mark

Q2.

This chart shows the population of Cornwall from 1950 to 2010.



Look at the chart.

In which year did the population first reach 400,000?

1 mark

How much did the population increase from 1950 to 2000?

1 mark

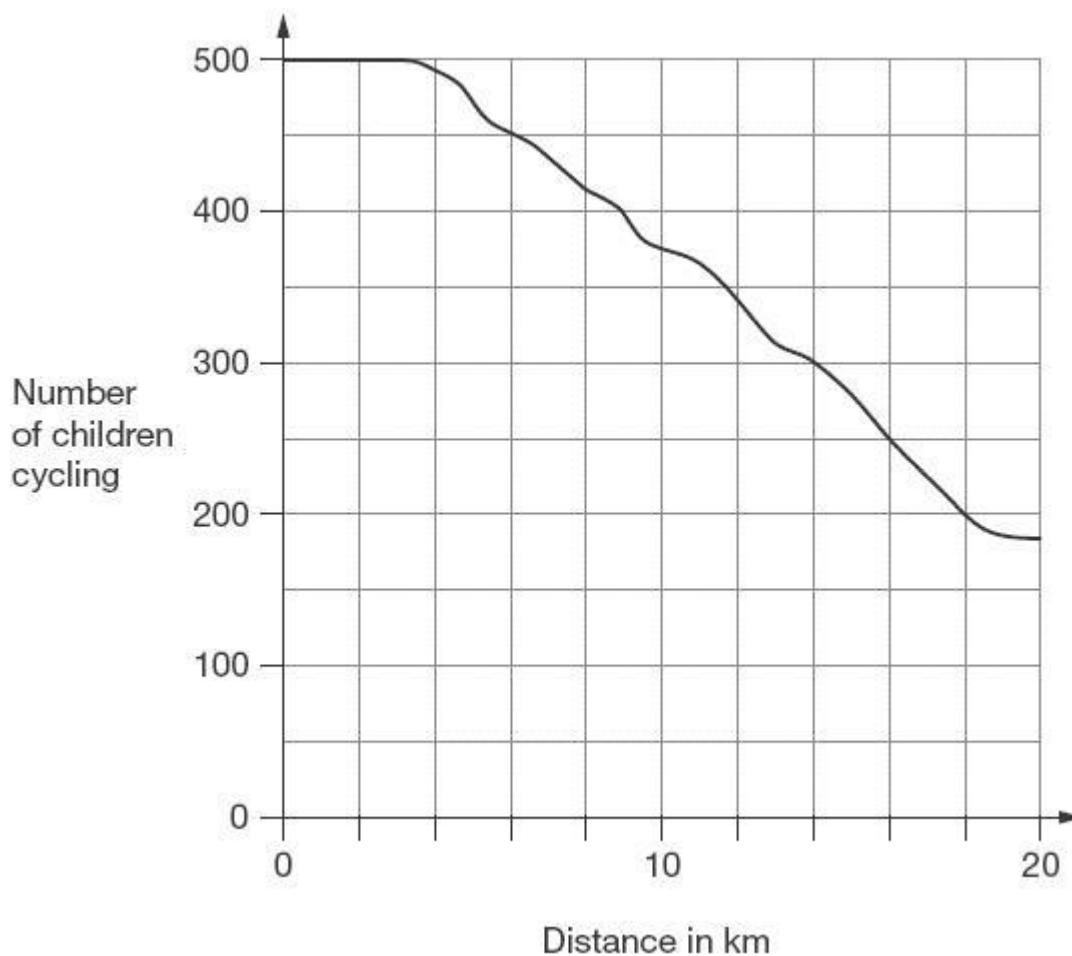
What was the population of Cornwall in 2010?

1 mark

Q3.

500 children started a 20 kilometre sponsored cycle ride.

This graph shows how far they cycled.



At what distance were exactly half of the children still cycling?

1 mark

Estimate how many children completed the 20 kilometre cycle ride.

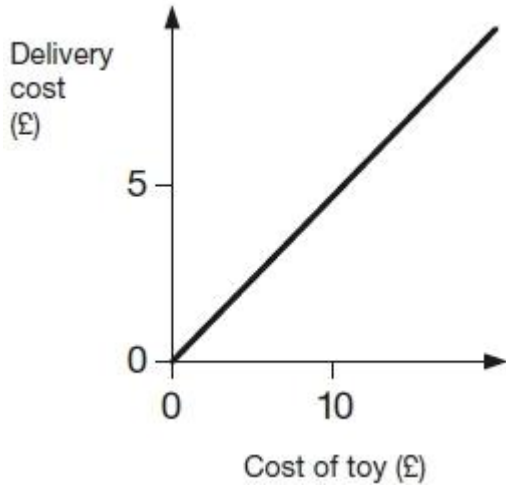
1 mark

Q4.

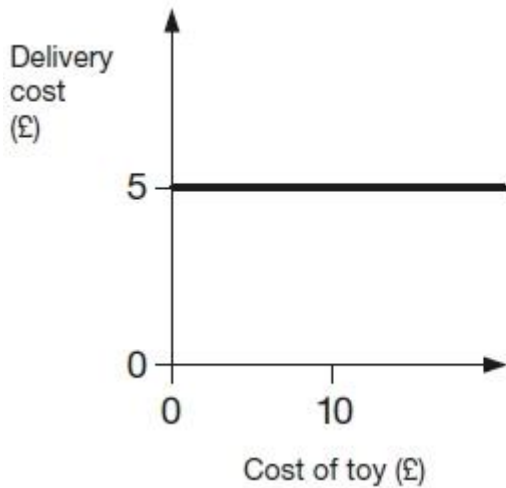
Two companies sell toys online. They charge to deliver.

Describe the delivery cost of the second company.

The first company is done for you.



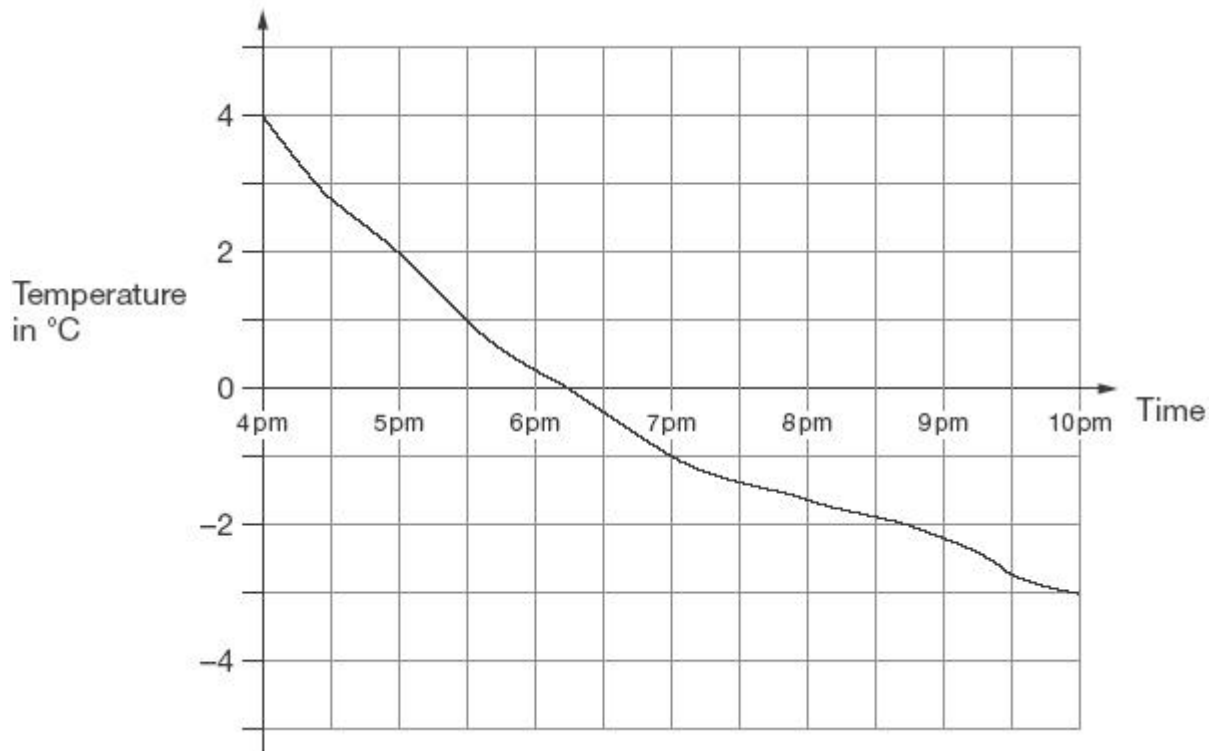
The more a toy costs, the more
the delivery costs.



1 mark

Q5.

This graph shows the outside temperature from 4pm to 10pm on a day in winter.



At what time was the temperature -2°C ?

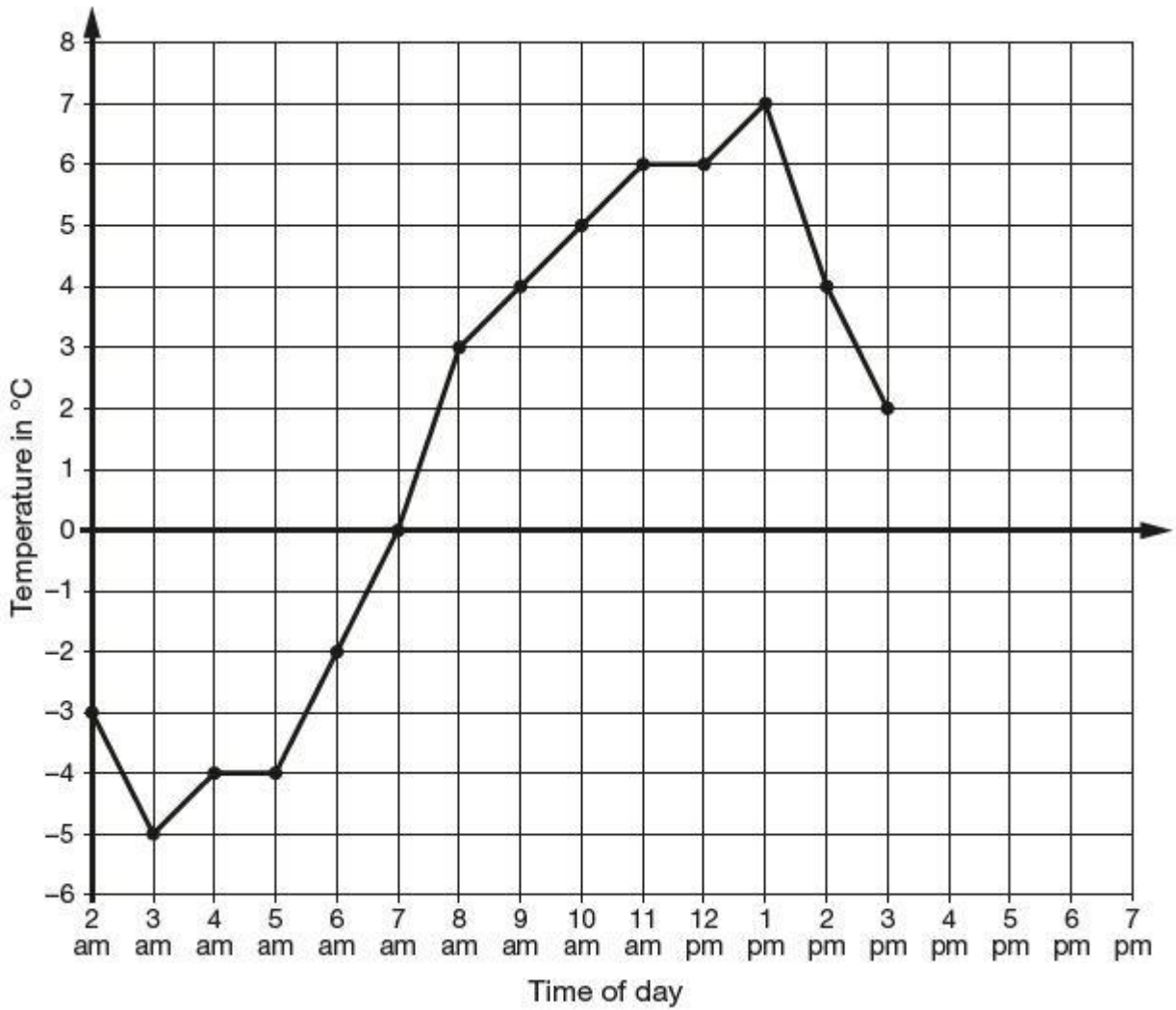
1 mark

How many degrees did the temperature drop from 5pm to 7pm?

1 mark

Q6.

This graph shows the temperature in °C from 2 am to 3 pm on a cold day.



How many degrees **warmer** was it at 3 pm than at 3 am?

1 mark

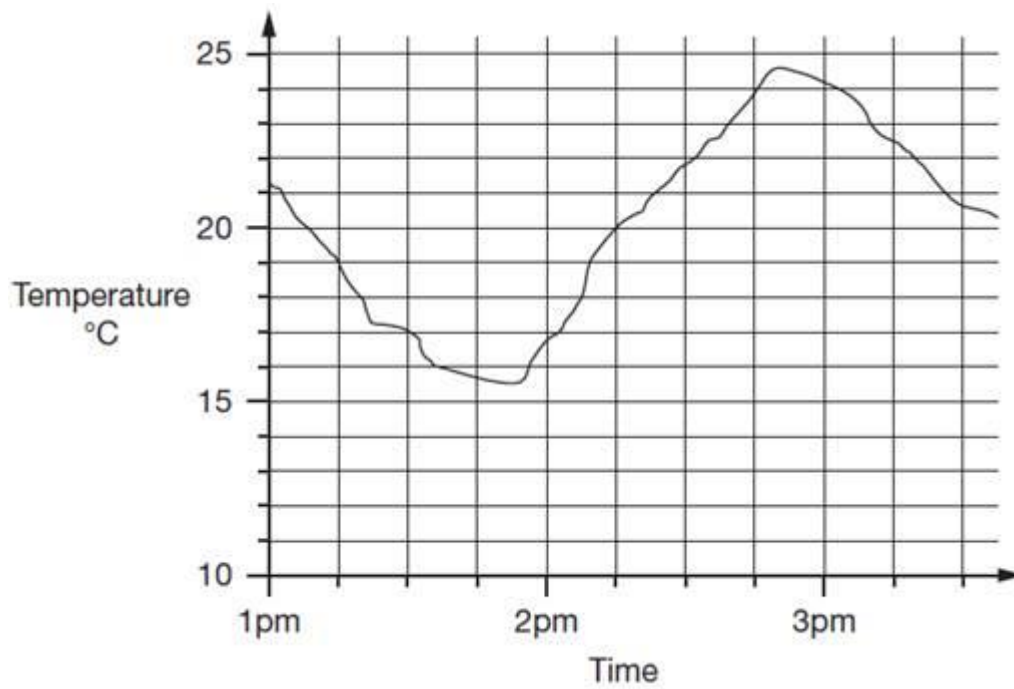
At 6 pm the temperature was 4 degrees lower than at 3 pm.

What was the temperature at 6 pm?

1 mark

Q7.

This graph shows how the temperature changed in Liam's room one afternoon.



Estimate the temperature at 3:15pm.

 °C

1 mark

Estimate the time when the temperature was highest.

 pm

1 mark

How much did the temperature change from 2pm to 2:30pm? Give your answer to the nearest degree.

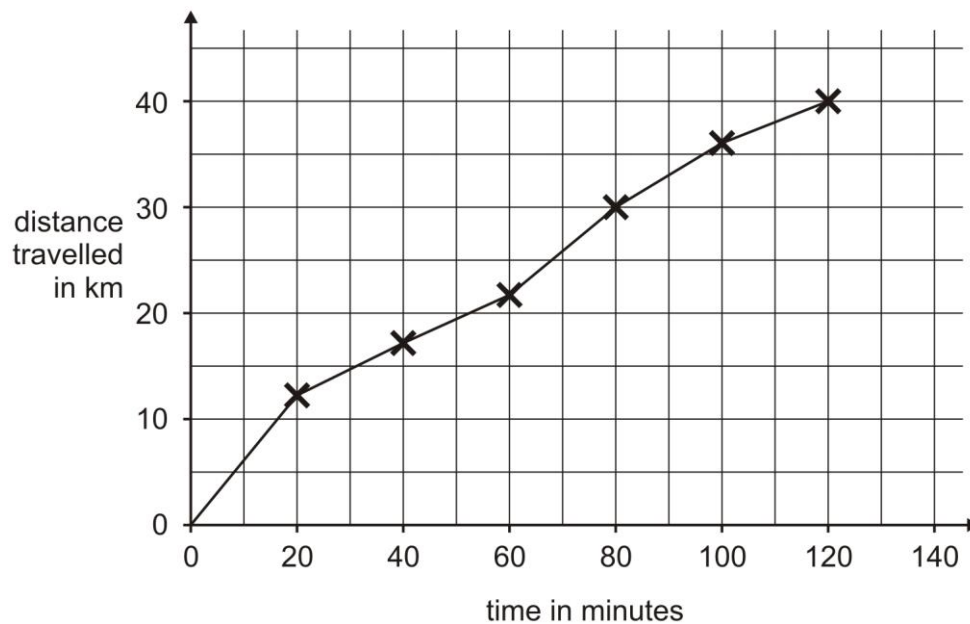
 degrees

1 mark

Q8.

Carol went on a **40-kilometre** cycle ride.

This is a graph of how far she had gone at different times.



How many minutes did Carol take to travel the **last 10 kilometres** of the ride?

minutes

1 mark

Use the graph to estimate the distance travelled in the **first 20 minutes** of the ride.

km

1 mark

Carol says,

'I travelled further in the first hour than in the second hour'.

Explain how the graph shows this.

1 mark

Mark schemes

Q1.

- (a) 400 *Accept any value between 380 and 420 inclusive.* 1
- (b) 45 *Accept any value between 43 and 47 inclusive.* 1

[2]

Q2.

- (a) 1974 **OR** 1975 **OR** 1976 1
- (b) A whole number answer in the range 130 000 to 180 000 **inclusive**. 1
- (c) A whole number answer in the range 510 000 to 550 000 **exclusive**.
Do not accept 510 000 OR 550 000 1

[3]

Q3.

- (a) 16 1
- (b) A whole number in the range 180 to 190 inclusive 1

[2]

Q4.

Gives a correct description that indicates the delivery cost is constant, eg:

- The delivery cost is always £5
 - The cost is always £5 no matter how much the toy costs
 - Delivery stays the same as the cost of toy increases
 - Accept minimally acceptable explanation, eg:*
 - *It is £5*
 - Accept omission of the actual delivery cost, eg:*
 - *It always costs the same*
 - *The cost is the same*
 - *The cost of the toy does not affect the delivery cost*
 - ! Condone correct response with the pound sign omitted, eg:*
 - *It is always 5*
 - ! Condone explanations which refer to toys costing up to £20*
- Do not accept incomplete or ambiguous explanation, eg:**

- They are equal amounts

[1]

Q5.

- (a) Answer in the range of 8:40pm to 8:50pm inclusive

The answer is a specific time

1

- (b) 3

Do not accept -3

1

Q6.

- (a) 7

1

Do not accept -7 or 7-

- (b) -2

1

Do not accept 2-

[2]

Q7.

- (a) Accept answers in the range 22.2 to 22.8 exclusive.

Do not accept 22.2 or 22.8

1

- (b) Accept answers in the range 2:48pm to 2:52pm inclusive.

The answer is a specific time.

1

- (c) 5

1

[3]

Q8.

- (a) 40

1

- (b) Answer in the range 12 to 13km inclusive.

1

- (c) An explanation which indicates that after 1 hour she has travelled more than 20km and/or she has travelled less than 20km in the second hour, eg

- 'She did about 40 km and it was about 22 in the first hour';
- 'Half and half would be 20-20, but she does more than 20 then less than 20';

- 'It goes to 23 in the first hour'.

Do not accept vague or arbitrary explanations, eg

- 'She got tired in the second half';
- 'It's marked on the graph';
- 'There's more crosses in the first hour than the second';
- 'The gaps are further apart'.

1

[3]