Data Handling KS2 SATS Standard Worksheet

1.   This is a list of the highest temperatures each day for one week.

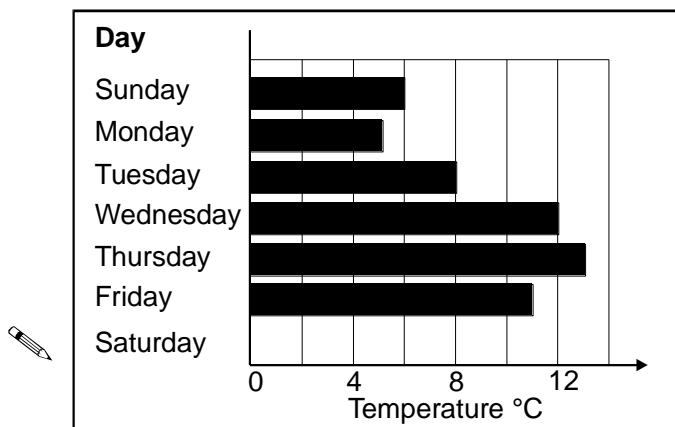| Day	Temperature
Sunday	6ºC
Monday	5ºC
Tuesday	8ºC
Wednesday	12ºC
Thursday	13ºC
Friday	11ºC
Saturday	7ºC

How many degrees warmer was it on the hottest day than on the coldest day?

°C

1 mark

Here is a chart of the temperatures. **Saturday** is missing.
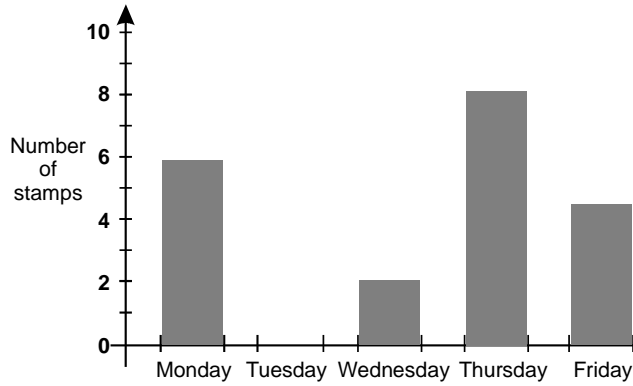
Draw in the bar for **Saturday.**

1 mark

2.   Here is a table of the number of stamps used each day in school.

	Monday	Tuesday	Wednesday	Thursday	Friday
19p	22	11	14	32	13
25p	8	17	4	6	19
30p	6	0	2	8	4
35p	6	0	6	1	0
50p	6	0	2	12	3

How many 25p stamps did the school use on Wednesday?

1 mark

This is a graph of **one kind** of stamp they used.

Which stamp is it?

	p

1 mark

3. Children run a 100 metres race on Sports Day.

Here are their times.

Name	Time taken
Sue	**15.97 secs**
Jan	**16.39 secs**
Sam	**14.83 secs**
Tom	**17.00 secs**
Raj	**15.89 secs**

What is the **winner's** time?

secs

1 mark

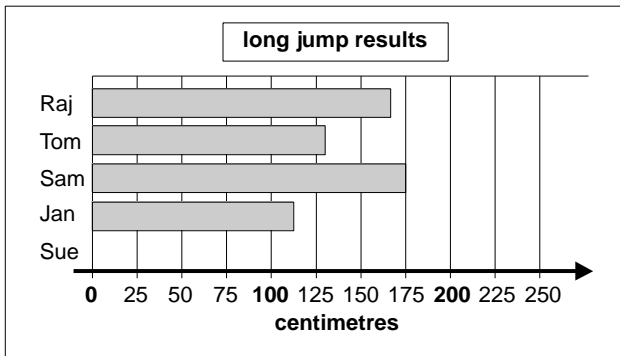Who has the time **nearest** to 16 seconds?   ....

1 mark

Here are their long jump results.

Sue jumped **212 cm**.

Draw Sue's long jump result on the graph.

long jump results

Raj

Tom

Sam

Jan

Sue

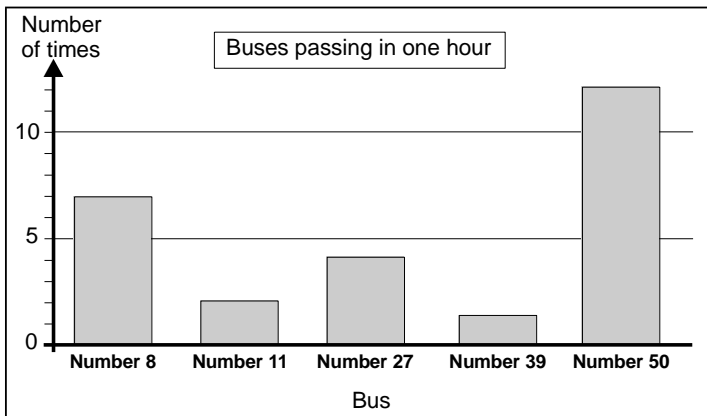0 25 50 75 **100** 125 150 175 **200** 225 250
centimetres

1 mark

Use the graph to estimate how **much further** Sam jumped than Jan.

cm

1 mark

4.   Anne makes a graph of buses passing a school in 1 hour.

Number of times

Buses passing in one hour

10

5

0

Number 8   Number 11   Number 27   Number 39   Number 50

Bus

How many times does a **Number 27** bus pass in the hour?

1 mark

Anne says,

   "Bus number 39 passes least often in the hour."

Explain how the graph shows this.

....

....

1 mark

How many more **Number 8** buses pass in the hour than **Number 11** buses?

1 mark

5. Chris did a survey of the number of people who went into shops in one hour.

| Number of people who went into a shop ‖‖‖ stands for 5 people	
Shoe shop	‖‖‖ ‖‖‖ ‖
Newsagent	‖‖‖
Post Office	‖‖‖ ‖‖‖ ‖‖‖ ‖‖‖ ‖‖
Bread shop	‖‖‖ ‖‖‖ ‖‖‖
Supermarket	‖‖‖ ‖‖‖ ‖‖‖ ‖‖

How many people went into the **Supermarket** in the hour?

1 mark

How many **more** people went into the **Post Office** than the **Shoe shop**?

1 mark

Here is part of a bar chart of the information.
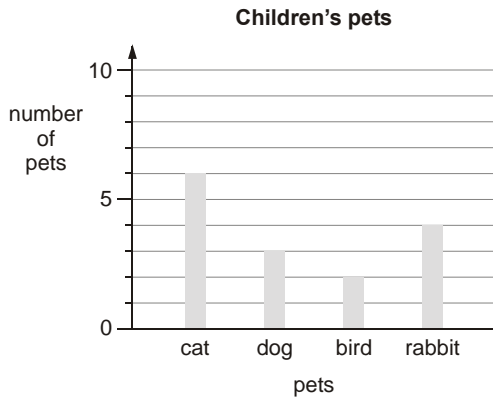
Draw in the **missing** bar.

People who went into shops

number of people

24
20
16
12
8
4
0

Shoe shop   News-agent   Post Office   Bread shop   Super-market
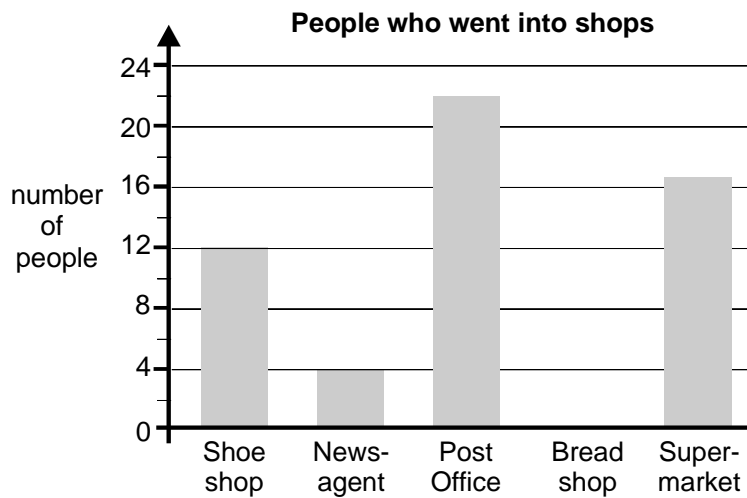
1 mark

6. Here is a table of the pets owned by **six** children.

Name of child	Cat	Dog	Bird	Rabbit
David	3	1	0	0
Julie	0	0	1	2
Carl	2	0	0	1
Terry	0	1	0	1
Mary	0	2	0	0
Hawa	1	0	1	1

4

Here is a graph of the pets of **five** of the children.

Children's pets

The pets of **one** of the children are not on the graph.

Whose pets are **not** on the graph?   ..   …….………………………………

1 mark

Explain how you know.

....

....

1 mark

7.   These are the times letters are collected from a post box.

Monday to Friday	Saturday	Sunday
8am 2pm 6:30pm	11:30am	no collection

What is the **latest** time letters are collected on **Wednesday**?

1 mark

Carla posts a letter at **9 am on Monday**.

How **long** will it be before it is collected?

hours

1 mark

Gareth posts a letter on **Saturday at 3pm**.

When is it collected from the post box?

day ……………………………..   time ……………………………..

1 mark

8.

5

This table shows the numbers of children who went walking, sailing or climbing at an outdoor centre.

	May	**June**	**July**
walking	25	80	75
sailing	15	42	50
climbing	18	27	23

How many children went **sailing** in **May, June and July** altogether?

1 mark

How many **more** children went **walking** in **June** than **climbing** in **June**?

1 mark

9.

This chart shows the musical instruments some children play.

	Lena	John	Rashid	Nicola	Yin
drums	✓	✓		✓	
keyboard			✓		
trumpet	✓				✓
recorder			✓	✓	✓
piano	✓	✓	✓		

Who plays **both recorder and drums**?

………..………

1 mark

How many children play **more than two** musical instruments?

1 mark

10. Tom does a survey of children's favourite breakfast cereals.
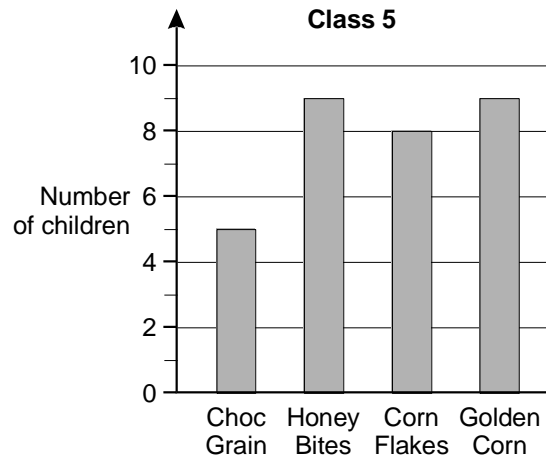
These are the results for Class 6
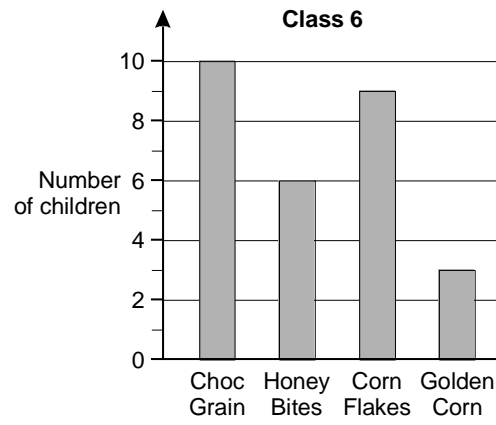
Class 6

How many **more** children in Class 6 prefer **Choc Grain** than **Golden Corn?**

1 mark

These are the results for Class 5

Class 5

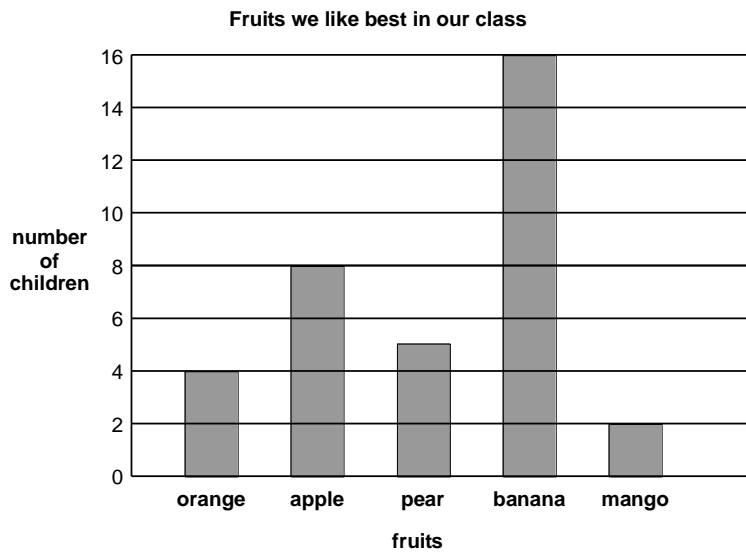How many children in **both** classes like **Honey Bites** best?

1 mark

11. (a) **Complete** this tally chart.

Fruits we like best in our class

fruit	tally	number of children
orange		5
apple	ЖΉ |||	8
pear	)||	3
banana	ЖΉ ЖΉ ЖΉ		
mango	||	2

1 mark

(b) The children made this graph from the tally chart.

Put a cross **(X)** on the two columns which are wrong.

Fruits we like best in our class

1 mark

12. Mandy bounces a ball. She plots the results on this graph.
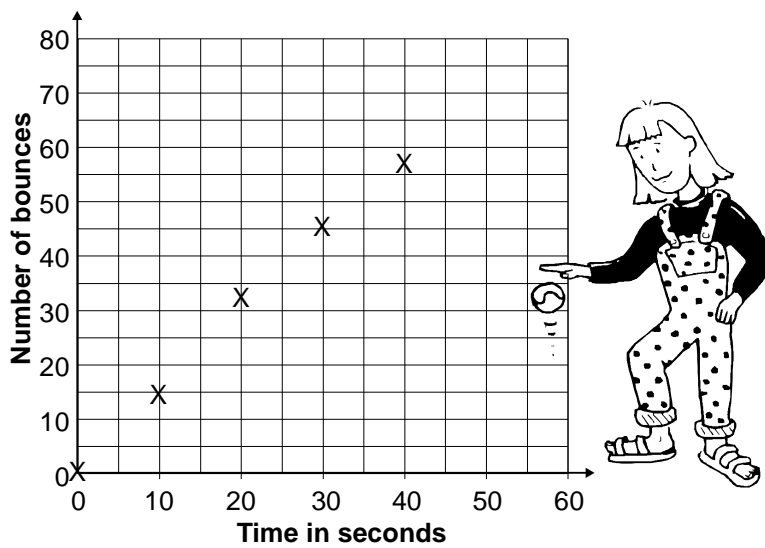
After 50 seconds Mandy has done 65 bounces.

(a) **Plot** this on the graph.

1 mark

(b) **Use the graph** to estimate the number of bounces Mandy has done after **35 seconds.**

1 mark

13.

Tally of traffic passing school

lorries	ⅢⅡ ││││	8
cars	ⅢⅡ ⅢⅡ ││││	
bicycles	ⅢⅡ │	
vans	ⅢⅡ	
motorbikes	││││	4

(a) Complete the tally.

9

1 mark

(b)   How many vehicles were seen altogether?
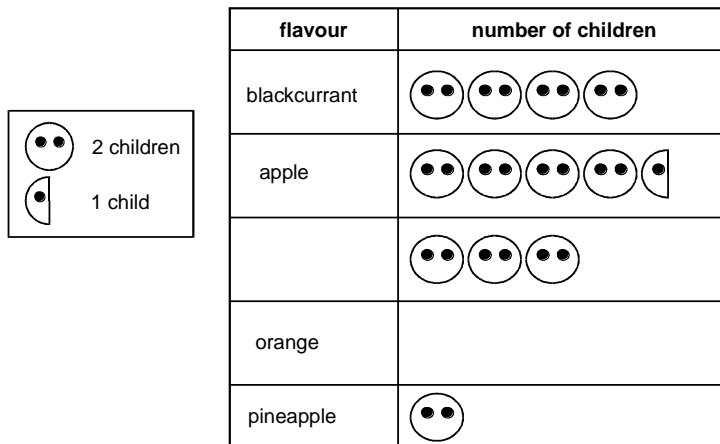
1 mark

(c)   Complete this graph using the tally.

cars							
motorbikes							
bicycles							
vans							
lorries							
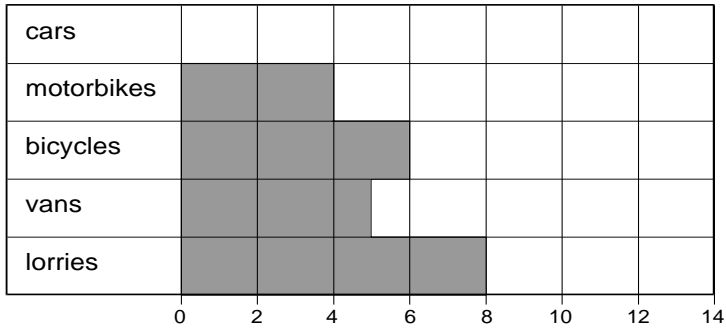
        0   2   4   6   8   10   12   14   1 mark

14. **Class survey of favourite fruit drinks**

flavour	number of children
pineapple	2
orange	10
blackcurrant	8
grapefruit	6
apple	9

a) Complete the pictogram for the class.

1 mark

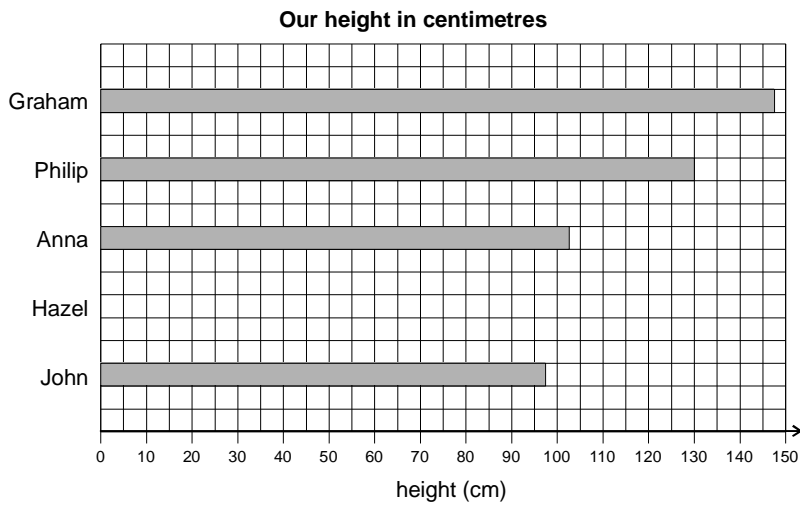(b) How many children altogether chose the three most popular flavours?

1 mark

(c) Write another question you can ask someone about the results of the class survey.

....

....

1 mark

15. Five children made a graph.
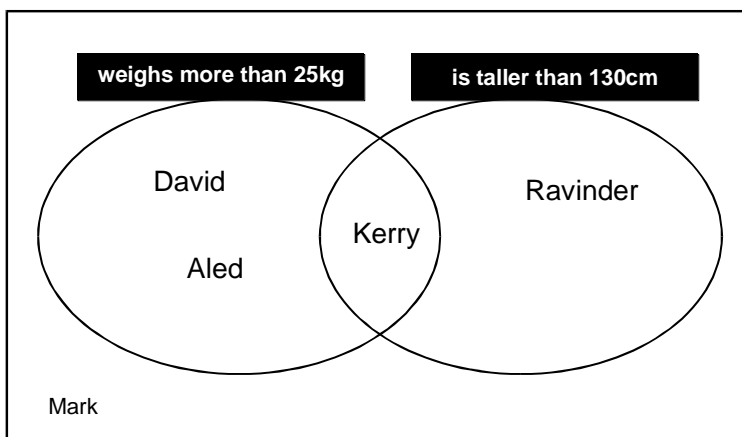
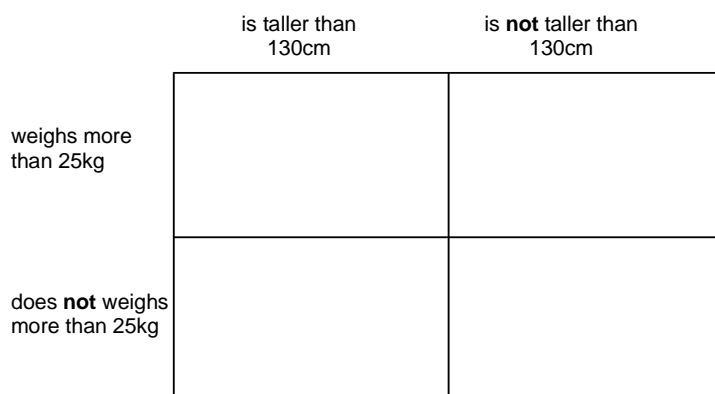**Our height in centimetres**

height (cm)

Hazel is 135cm tall.

Show this on the graph.

16. **Five** children sorted themselves into these sets

Complete this diagram to show the same information.

	is taller than 130cm	is **not** taller than 130cm
weighs more than 25kg		
does **not** weighs more than 25kg		

17. Some children drew this graph.

Number of books we have read this year
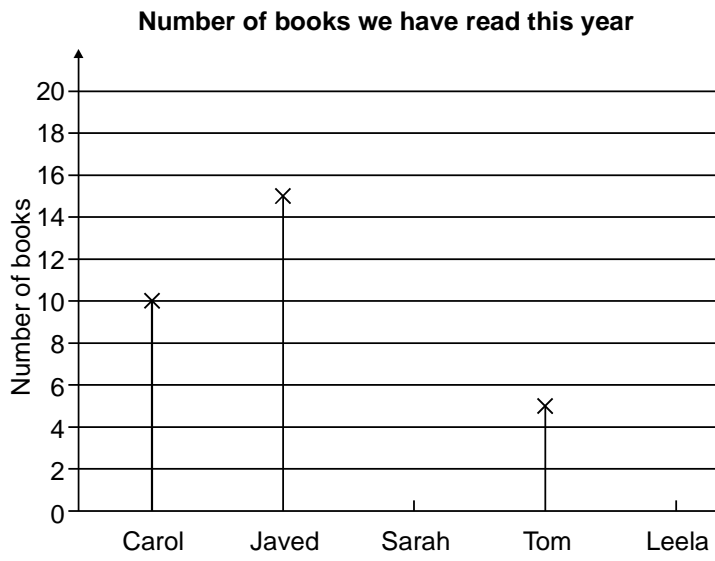
(a) Sarah has read 12 books and Leela 9 books.
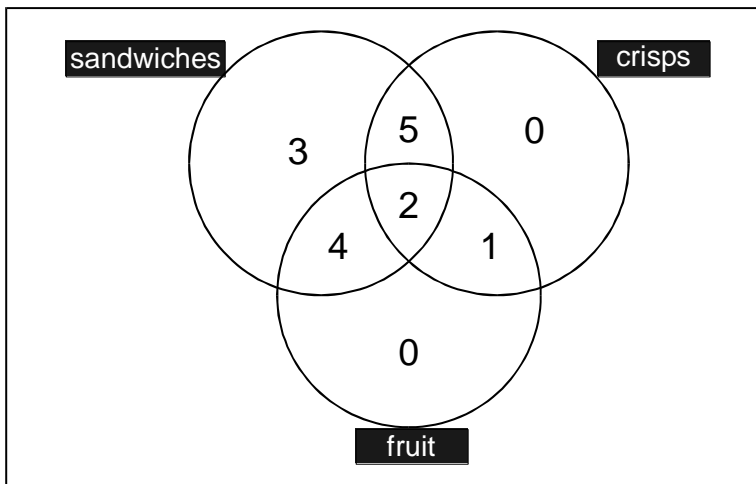
Show these on the graph.

1 mark

(b) Javed has read more books than Tom.

How many more?

1 mark

18. This diagram shows how many children had sandwiches, crisps and fruit in their lunchboxes.

sandwiches   crisps

3   5   0

2

4   1

0

fruit

(a) How many children had **only** sandwiches?

1 mark

(b) How many children had crisps?

1 mark

19. The table shows the number of shirts in a shop.

	White	Not White
Cotton	27	56
Not cotton	74	90

(a) How many shirts are white?

1 mark

(b) How many shirts are there altogether?

1 mark

20. This is what it costs to visit a castle.

Allington Castle
Cost per person

Adults	£2.45
Children (11 and over)	£1.30
Children (under 11)	95p

Helen is 10 years 9 months old.
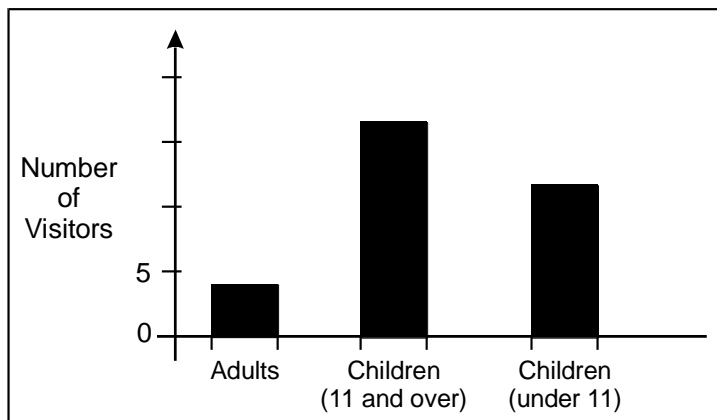
How much will it cost Helen to visit?

1 mark

On one day the number of visitors was

Adults	**4**
Children (11 and over)	**16**
Children (under 11)	**12**

Here is a graph to show the number of visitors.

Complete the scale for the axis called "Number of Visitors".

1 mark

How much will it cost for **18 children** (under 11) to visit the castle?

You **must** show your working.

1 mark

21. On sports day children get points for how far they jump.

Standing Long Jump		
Over	80cm	1 point
Over	100cm	2 points
Over	120cm	3 points
Over	140cm	4 points
Over	160cm	5 points
Over	180cm	6 points

Joe jumped 138cm.

How many points does he get?

points

1 mark

Sam said, **"I jumped 1.5 metres. I get 4 points".**
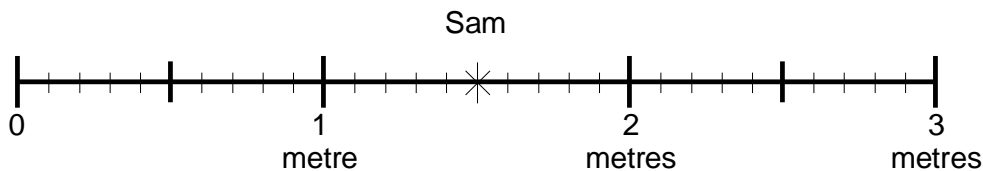
Give a reason why Sam is correct.

....

1 mark

Each child puts a cross on a line to show how far they jumped.
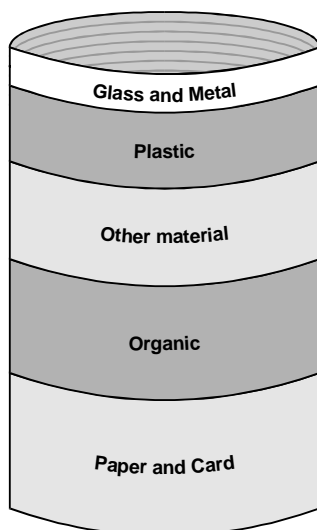
Sam puts her cross at 1.5 metres.

Lynn jumps **1.14** metres.

Put a cross on the line for Lynn's jump.

Sam

```
0        1        2        3
      metre    metres   metres
```

1 mark

22. This diagram shows the proportions of waste by weight a family throws away in one year,

Estimate what **fraction** of the waste is **organic**.

16

1 mark

The family throws away about **35 kilograms of plastic** in a year.

Use the diagram to estimate the weight of **glass and metal** they throw away.

| kg |

1 mark

The family throws away **130 kg** of paper and card.

70% of this is **newspapers**.
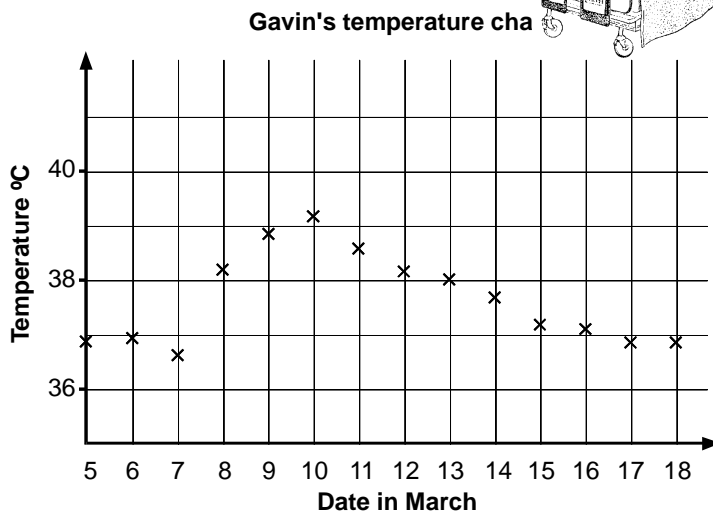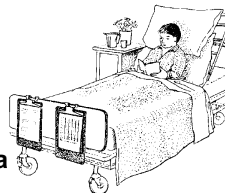
What is the weight of **newspapers**?

Show your **working.** You may get a mark.

| kg |

2 marks

23. Gavin was ill in March.

This is his temperature chart.

Gavin's temperature cha

For how many days was his temperature marked as **more than 37°C**?

1 mark

Which **date** showed the largest **change in temperature** from the day before?

1 mark

Estimate Gavin's **highest** temperature shown on the graph.

17

Give your answer to **1 decimal place.**

| °C | 1 mark

24. These are the marks from a spelling test.

Jay	16
Karen	13
Dominic	18
Tariq	13
Lara	12
Oliver	14
Gemma	19

What is the **median** number of marks?

1 mark

25.

Car Park charges	
Time	**Charge**
up to 1 hour	20p
1 to 2 hours	50p
2 to 3 hours	£1.00
3 to 4 hours	£1.70
over 4 hours	£5.00

Emma parks her car at **9.30 am**.

She collects the car at **1.20 pm**.

How much does she pay?

1 mark

Dan and Mark both use the car park.

Dan says,

'I paid exactly twice as much as Mark but I only stayed 10 minutes longer'.

Explain how Dan could be correct.

....

....

1 mark

26. Tom, Amy and Helen want to go on a boat trip.

There are three boats.

Lark	**Heron**	**Kestrel**
50 minute trip	70 minute trip	90 minute trip
Tickets £2.75 each	**Tickets £3.50 each**	**Tickets £4.20 each**

How much does it cost altogether for **three** people to go on the **Lark**?

£ _____

1 mark

Tom and Amy go on the **Heron**.

They leave at **2:15pm**.

At what **time** do they return?

_____ pm

1 mark

Helen goes on the **Kestrel** and **gets back at 4:15pm**.
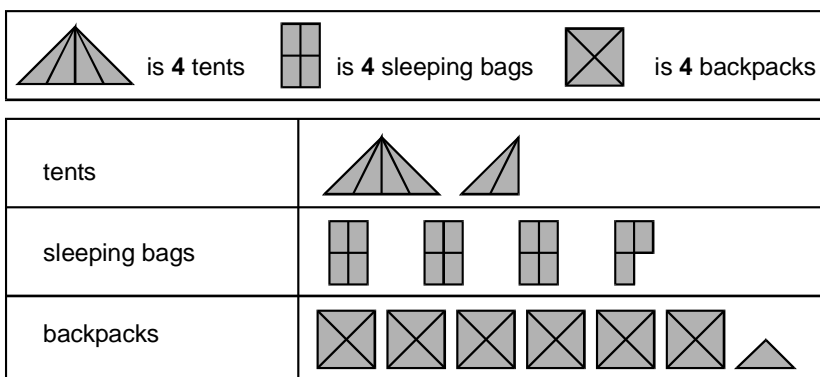
At what **time** did the boat leave?

_____ pm

1 mark

27. A camping shop sells **tents**, **sleeping bags** and **backpacks**.

This chart shows how many of each they sold in June.

Items sold in June

The shop had **20** sleeping bags at the **beginning of June**.

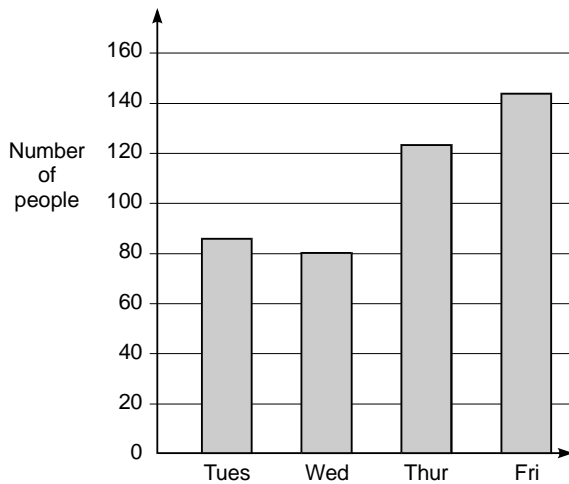How many of these sleeping bags did the shop have left at the **end of June**?

✏️ [ ]

1 mark

In **July**, the shop sold **three times as many tents** as in June.

How many tents did the shop sell in **July**?

✏️ [ ]

1 mark

28. This bar chart shows how many people went to a school play.

Estimate the number of people who went there on
Thursday and **Friday** altogether.

✏️ [ ]

1 mark

Each person paid **£2.25** for a ticket to get in.

How much **ticket money** was collected on **Wednesday**?

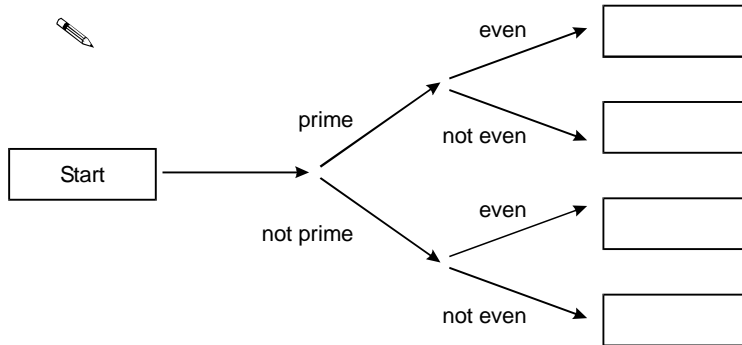Show your **method.** You may get a mark.

£ [ ]

2 marks

29. Here is a diagram for sorting numbers.

Write these three numbers in the correct boxes.

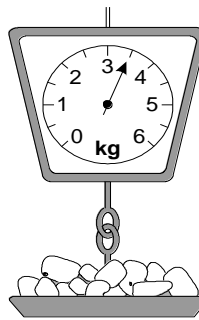You may not need to use all of the boxes.

9   17   20

	even	
prime		
	not even	
Start		
	even	
not prime		
	not even	

2 marks

30. This table shows the weight of some fruits and vegetables.

Complete the table.

	grams	kilograms
potatoes	3500	3.5
apples		1.2
grapes	250	
ginger		0.03

2 marks

31. The table shows the cost of coach tickets to different cities.

		Hull	York	Leeds
Adult	single	£12.50	£15.60	£10.25
	return	£23.75	£28.50	£19.30
Child	single	£8.50	£10.80	£8.25
	return	£14.90	£17.90	£14.75

What is the total cost for a **return** journey to York for one adult and two children?

£

1 mark

How much **more** does it cost for two adults to make a **single** journey to Hull than to Leeds?

£

1 mark

22

32. Some children ran in two races on sports day. Here are their times.

|	**100m race**	**800m race**
Elise	15.9 seconds	3 minutes 02 seconds
Jake	19.7 seconds	2 minutes 58 seconds
Teri	16.8 seconds	3 minutes 01 seconds
Neil	17.1 seconds	2 minutes 59 seconds
Barry	18.4 seconds	2 minutes 57 seconds

Who finished the 100m race in **second** place?

1 mark

In the 800m race, how many seconds did Barry
finish ahead of Elise?

seconds

1 mark

33. The graph shows the journey of a hot-air balloon.
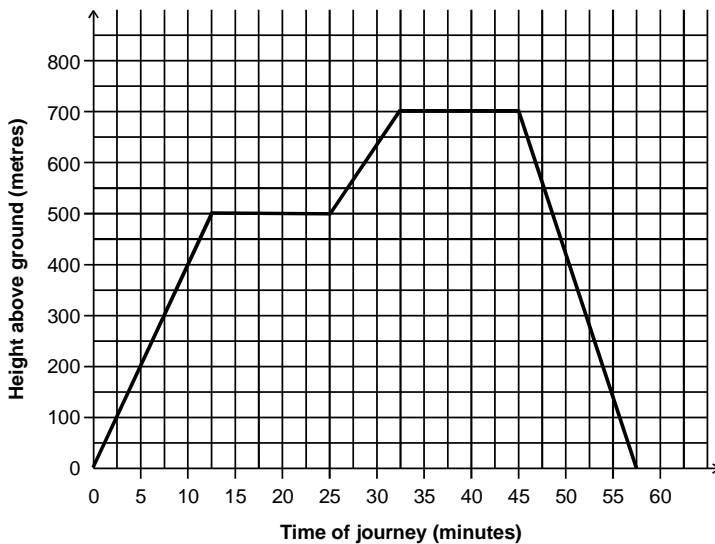
(a) At what **height** above the ground was the balloon after **10 minutes?**

metres

1 mark

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

minutes
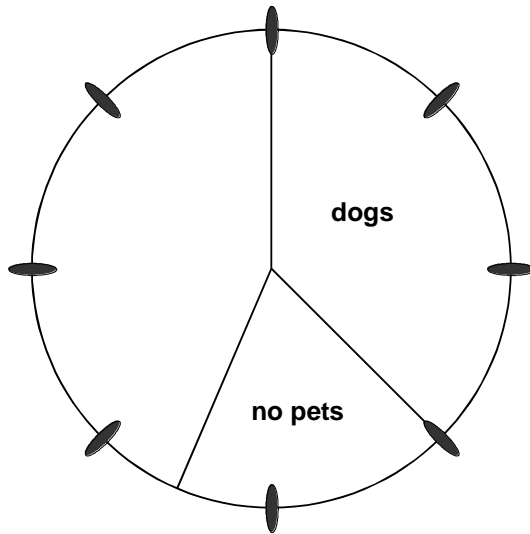
1 mark

34. **80 people** were asked if they owned a pet.

30 had **dogs**

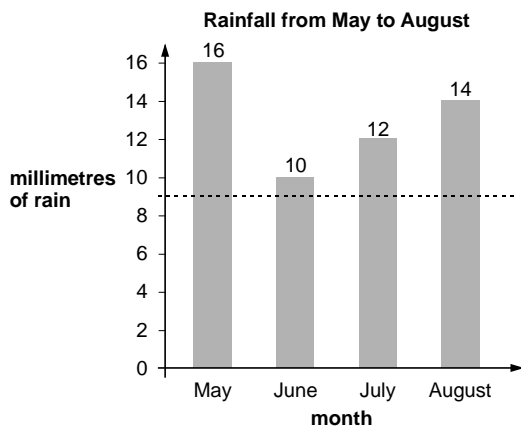**25** had **cats**

10 had other **pets**

15 had no **pets**

Complete the pie chart to show this information.

2 marks

35. Here is a bar chart showing rainfall.

Kim draws a dotted line on the bar chart.

She says,

'The dotted line on the chart shows the mean rainfall for the four months.'

Use the chart to explain why Kim **cannot** be correct.

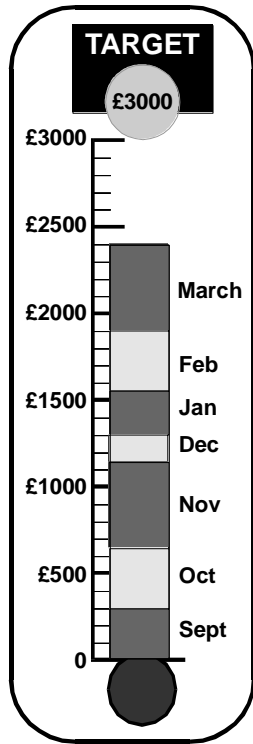...

....

24

1 mark

What is the **mean** rainfall for the four months?

✎ [mm]

1 mark

36. A school collects money for charity.

This chart shows how much has been collected.

The target is **£3000**.

Estimate how much **more** money the school needs to reach the target.

£ [   ]

1 mark

Anil says,

> *The chart shows that we will reach the target in two months.*

Use the chart to explain why Anil may be wrong.

....

....

1 mark

37. Rob runs 100 metres ten times.
These are his times in seconds.

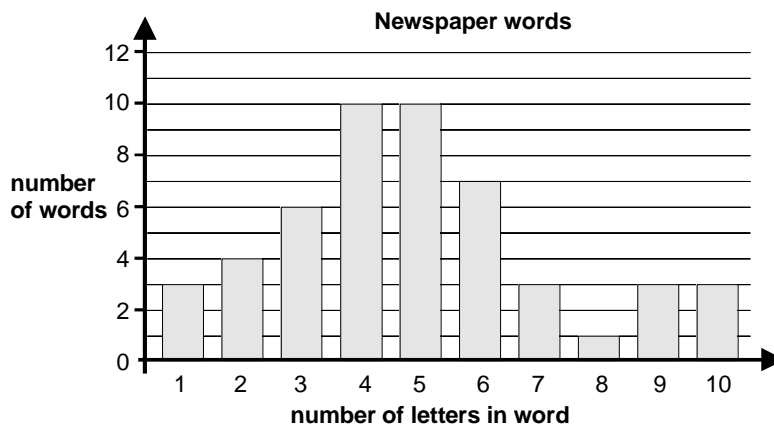|				
13.4	**13.0**	**13.9**	**13.7**	**13.3**
13.5	**14.0**	**14.4**	**13.8**	**14.0**

What is his **mean** (average) time?

seconds

1 mark

38. Kelly chooses a **section** of a newspaper.

It has **50 words** in it.

She draws a bar chart of the number of letters in each word.

Newspaper words

What **fraction** of the 50 words have **more than 6 letters**?

1 mark

Kelly says,

23 of the 50 words have less than 5 letters.

This shows that nearly half of all the words used in the newspaper have less than 5 letters in them.

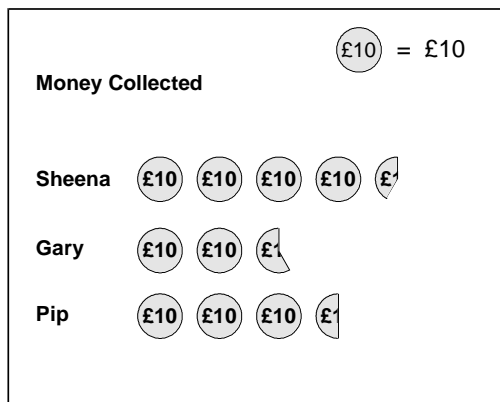Explain why she **could be wrong.**

....

....

1 mark

39. Three children do a sponsored silence.

This is a chart of the money they collected.

Estimate how much **Sheena** collected.

✎ £ _____

1 mark

Together **Gary** and **Pip** collected **more than £60**.

Explain how the **chart** shows this.

....

....

1 mark

40. Write a **different** number in **each** of these boxes so that the **mean** of the **three** numbers is **9.**
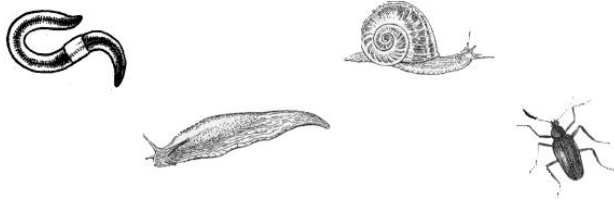
☐ ☐ ☐

1 mark

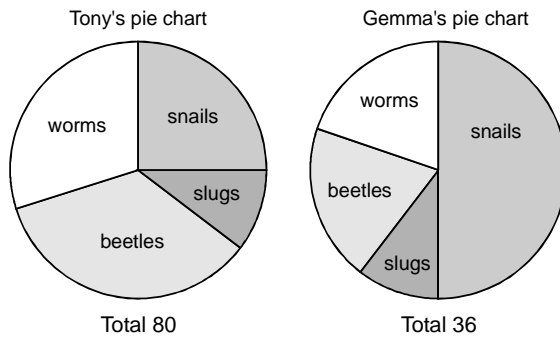Write a number in **each** of these boxes so that the **mode** of the **five** numbers is **11**.

☐ ☐ ☐ ☐ ☐

1 mark

41. Tony and Gemma looked for snails, worms, slugs and beetles in their gardens.

They each made a pie chart of what they found.

Tony's pie chart

Total 80

Gemma's pie chart

Total 36

Estimate the number of **worms** that **Tony** found.

✎ [ ]

1 mark

Who found more **snails**?
Circle Tony or Gemma.   ✎   Tony / Gemma
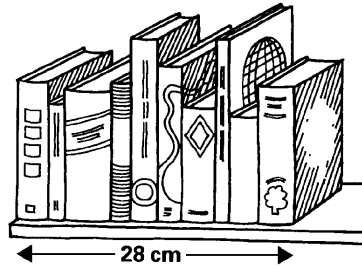
Explain how you know.

....

....

1 mark

42. *n* stands for a number.

Complete this table of values.

n	5 *n* – 2
20	[ ]
[ ]	38

43. Vicki puts 10 books on a shelf.

The **10 books** take up **28 centimetres**.

28 cm

What is the **mean (average)** thickness of her books?

Show your **working.** You may get a mark.

cm

2 marks

The shelf is **120 centimetres** long.

Vicki fills the shelf with a mixture of books like the **first ten books.**
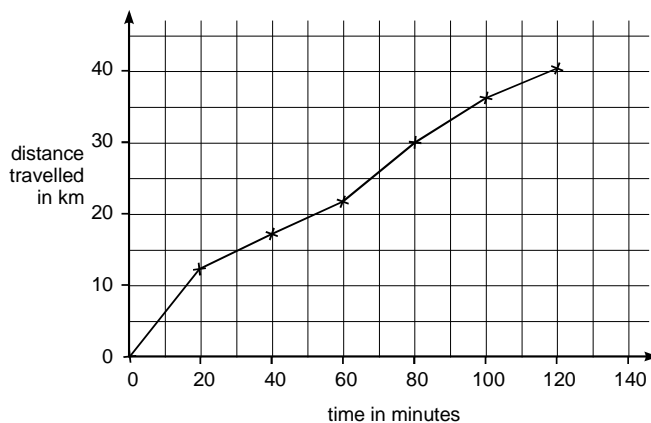
Estimate how many books she can get on the **120 cm shelf**.

Show your **working.** You may get a mark.

2 marks

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

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

distance travelled in km

time in minutes

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

minutes

1 mark

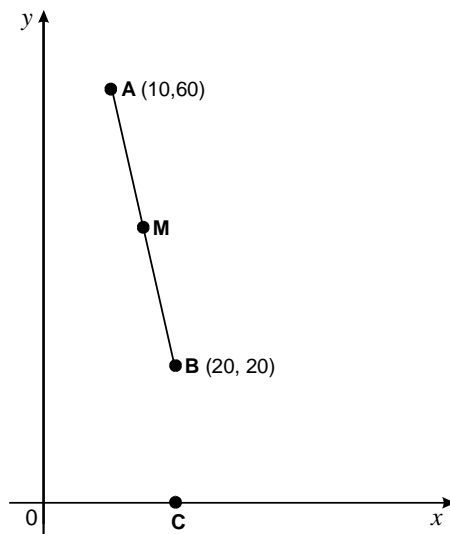Use the graph to estimate the distance traveled in the **first 20 minutes** of the ride.

km

1 mark

Carol says,

> **'I travelled further in the first hour then in the second hour'.**

Explain how the graph shows this.

. ...

....

1 mark

45.

A is the point **(10, 60)**

B is the point **(20, 20)**

M is the midpoint of line AB.

Write the coordinates of **M**.

✎ (,)

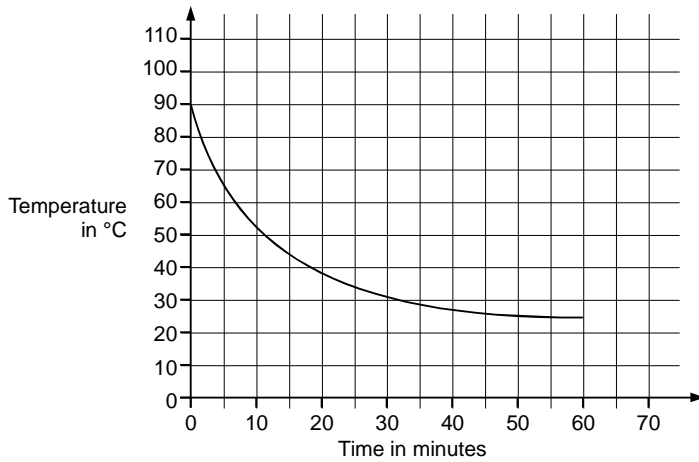1 mark

C is on the x-axis, directly **below B**.

Write the coordinates of **C**.

✎ (,)

1 mark

46. A hot liquid is left to cool in a science experiment.

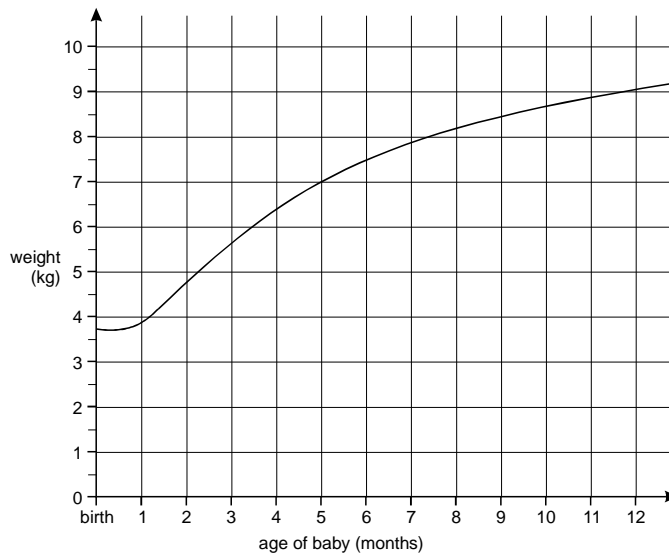This graph shows how the temperature of the liquid changes as it cools.

Read from the graph **how many minutes** it takes for the temperature to reach **40°C**

minutes

1 mark

Read from the graph **how many minutes** the temperature is **above 60°C**

minutes

1 mark

47. This graph shows how the weight of a baby changed over twelve months.

From the graph, what was the weight of the baby at **10 months?**

kg

1 mark

How much **more** did the baby weigh at 5 months than at birth?

kg

1 mark