1. Class 6 did a survey of birthday dates.

This chart shows the number of people with birthdays in each three months of the year.


From the chart, how many people have a birthday before July?


Nobody has a birthday in October.
Six people have a birthday in November.
How many people have a birthday in December?


1 mark
2. This graph shows the number of people living in a town.


Look at the graph.
How many people lived in the town in $1985 ?$


1 mark

In which year was the number of people the same as in 1950 ?


1 mark

Find the year when the number of people first went below 20000


1 mark
3. This chart shows the number of cars in a car park at different times on one day.


There are 80 cars in the car park when it is full.

How many empty spaces were there in the car park at 3pm?


1 mark

Circle all the times when the car park was less than half full.

| 10 | 11 | 12 | 1 | 2 | 3 | 4 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $a m$ | am | noon | pm | pm | pm | pm |

1 mark
4. 40 children each chose their favourite flavour of yogurt.

This chart shows the results.
yogurt flavour


How many children chose lemon yogurt?


1 mark

How many more children chose raspberry than plain yogurt?


1 mark
5. Class 6 launched some balloons at a school fete.


This diagram shows how far some of the balloons travelled.


How many balloons on the diagram travelled between 20 km and 30 km ?


1 mark

Estimate how far Hassan's balloon travelled.


1 mark
6. The chart shows the number of sunny days and the number of windy days in six months.


Which months had more windy days than sunny days?
$\qquad$

How many months had more than 15 sunny days?


1 mark

How many more sunny days than windy days were there in June?


1 mark
7. Some children were asked to choose their favourite animal in the zoo.

This table shows the results.

|  | Girls | Boys |
| :--- | :---: | :---: |
| zebra | 9 | 3 |
| lion | 4 | 9 |
| giraffe | 7 | 4 |
| monkey | 8 | 7 |
| elephant | 6 | 5 |

How many more girls than boys chose giraffes?


1 mark

How many more boys chose lions than elephants?


Which animal was chosen by the greatest number of children?
$\qquad$
8. Some children each chose their favourite sport.

This chart shows the results.


Which sport was chosen by the most children?
$\qquad$

How many more girls than boys chose basketball?


Write all the sports that were chosen by more boys than girls.

9. This graph shows the height of a candle as it burns.


Look at the graph.
What is the height of the candle after 2 hours?


How long does the candle take to burn down from 16 cm to 4 cm ?


1 mark
10. Rosie collects data about birds visiting a bird table.

Here are her results.

| Blackbird | HH |
| :--- | :--- |
| Sparrow | $\\|$ |
| Robin | $\\|\\|$ |
| Blue tit | $\\|\\|$ |
| Other | HY |



Draw two more lines to complete the graph.


1 mark

Rosie saw 20 birds altogether.
What fraction of the birds were blackbirds?


1 mark
11. Five children have ticked this table to show on which days they are free to go out.

|  | Emma | David | Lin | Jack | Rosie |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Mon |  | $\checkmark$ | $\checkmark$ |  | $\checkmark$ |
| Tue | $\checkmark$ |  | $\checkmark$ | $\checkmark$ |  |
| Wed |  | $\checkmark$ |  |  | $\checkmark$ |
| Thu |  |  | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| Fri | $\checkmark$ | $\checkmark$ |  |  | $\checkmark$ |

On how many days are more than two children free to go out?


1 mark

On which days are Lin and Rosie both free to go out together?

1 mark
12. This chart shows the number of books some children read last month.


How many children altogether read more than 9 books?


1 mark

7 children read 4 books.
1 child read 5 books.
Lin says,

## 'That means 2 children read 6 books'.

Explain how she can work this out from the chart.

13. Class 6 did a survey of the number of trees in a country park.


This pie chart shows their results.


Estimate the fraction of trees in the survey that are oak trees.


1 mark

The children counted 60 ash trees.
Use the pie chart to estimate the number of beech trees they counted.


1 mark
14. Class 6 did a survey of their favourite types of story book.

Here are their results.


How many more children chose adventure books than fantasy books?


Five girls chose animal books.
How many boys chose animal books?


1 mark
15. Here is a sorting diagram with four sections, A, B, C and D.

|  | multiple of 10 | not a <br> multiple of 10 |
| :---: | :---: | :---: |
| multiple of 20 | A | B |
| not a <br> multiple of 20 | C | D |

Write a number that could go in section $\mathbf{C}$.


1 mark

Section B can never have any numbers in it.
Explain why.

16. This graph shows the temperature in a greenhouse.


Use the graph to find the time when the temperature was $25^{\circ} \mathrm{C}$.


1 mark

Use the graph to find the difference between the temperature at 2 pm and the temperature at 4 pm .

17. Robbie collected information about the colours of some bikes.

Here are his results.

| Colour | Number of bikes |
| :---: | :---: |
| green | 4 |
| red | 7 |
| blue | 12 |
| pink | 3 |

This bar graph shows the information from the table.
Fill in all the missing labels.


2 marks
18. Class 6 count how many seeds they find under two trees.

They show the data in a graph.

- oak
- chestnut


How many seeds did they find in week 3 altogether?


In how many weeks did they find more than 40 chestnut seeds?


1 mark
19. This pie chart shows how the children in Class 6 best like their potatoes cooked.


32 children took part in the survey.
Look at the four statements below.

## For each statement put a tick ( ) if it is correct. <br> Put a cross $\left(\boldsymbol{K}_{\text {) if it is not correct }}\right.$

10 children like chips best. $\square$
$25 \%$ of the children like mashed potatoes best. $\square$
$\frac{1}{5}$ of the children like roast potatoes best. $\square$

12 children like jacket potatoes best. $\square$
20. A shop sells different kinds of greeting cards.


This pictogram shows how many they sold in a week.


Estimate how many Birthday cards were sold.


1 mark
Estimate how many more Thank You cards than Get Well cards were sold.


1 mark
21. All the children at Park School chose their favourite soup.

The graph shows the results.


How many more children chose chicken soup than mushroom soup?


1 mark

Robbie says,

## 'More than half of the children chose tomato soup'.

Is he correct?
Circle Yes or No.
Yes / No
Explain how you can tell from the graph.
22. On Monday all the children at Grange School each play one sport.

They choose either hockey or rounders.


There are $\mathbf{1 0 3}$ children altogether in the school.
27 girls choose hockey.
Write all this information in the table.
Then complete the table.

|  | hockey | rounders | Total |
| :---: | :---: | :---: | :---: |
| boys | 22 |  |  |
| girls |  |  | 53 |
| Total |  |  |  |

23. 



These are the prices of sandwiches, drinks and fruit.

| Sandwiches |  | Drinks |  | Fruit |  |
| :--- | :---: | :--- | ---: | :--- | :---: |
| cheese | $£ 1.45$ | milk | $55 p$ | apple | $15 p$ |
| tuna | $£ 1.70$ | cola | $45 p$ | pear | $20 p$ |
| salad | $£ 1.20$ | juice | $65 p$ | melon | $25 p$ |

Shereen buys a tuna sandwich, milk and a pear.
How much does she pay?


1 mark
Mike has 80 p to spend on a fruit and a drink.
What two things can he buy for exactly 80p?
$\qquad$ and $\qquad$
24. Abbie takes the temperature outside at midday on the first day of each month. The graph shows her results from January to December.


How many months on the graph show a temperature between $10^{\circ} \mathrm{C}$ and $\mathbf{2 0}^{\circ} \mathrm{C}$ ?


Find the difference in temperature shown on the graph between July and August.

25. Here is a sorting diagram for numbers.

Write a number less than 100 in each space.

|  | even | not even |
| :--- | :--- | :--- |
| a square number |  |  |
| not a square number |  |  |

26. 



A school has sports day.
The winner of each event scores $\mathbf{1 0}$ points.
This chart shows the points scored by each team.

| Event | Team |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
|  | Red | Green | Blue | Yellow | White |
| 100 m | 8 | 6 | 2 | 10 | 4 |
| Long jump | 10 | 2 | 6 | 4 | 8 |
| Relay | 4 | 6 | 8 | 10 | 2 |
| High jump | 8 | 2 | 10 | 6 | 4 |

Which team came second in the relay?
$\qquad$
27. A school has a quiz each year.

There are two teams.
Here are their results.


In which year did North beat South by 100 points?


1 mark
In which year did South beat North by the greatest amount?


1 mark
28.


This graph shows the height of a balloon at different times.


From the graph, find the height of the balloon at 50 seconds.


1 mark
Use the graph to find out how long it took the balloon to rise from 30 metres to 60 metres.


1 mark
29. This table shows how many journeys a taxi driver made on five days and how much money he collected.

|  | number of <br> journeys | money <br> collected |
| :--- | :---: | :---: |
| Monday | 23 | $£ 85$ |
| Tuesday | 36 | $£ 112$ |
| Wednesday | 18 | $£ 69$ |
| Thursday | 31 | $£ 124$ |
| Friday | 35 | $£ 109$ |

How much money did he collect on the day that he made the most journeys?


1 mark
How much more money did he collect on Monday than on Wednesday?


1 mark
30. Some children ran in two races on sports day.

Here are their times.

|  | $\mathbf{1 0 0 m}$ race | $\mathbf{8 0 0 m}$ 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 100 m race in second place?


1 mark

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


1 mark
31. The pie charts show the results of a school's netball and football matches.


Netball


Football

The netball team played $\mathbf{3 0}$ games.
The football team played $\mathbf{2 4}$ games.

Estimate the percentage of games that the netball team lost.


1 mark

David says,
'The two teams won the same number of games'.
Is he correct?
Circle Yes or No.
Yes / No
Explain how you know.
$\qquad$
$\qquad$
$\qquad$
32. Some children collect cans for recycling.

Here is a chart of how many cans they collect in the first week.


How many cans has Kevin collected?


1 mark

Alice's target is to collect $\mathbf{3 0}$ cans.
How many more cans does Alice need to reach her target?


1 mark
33. 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
34. Tom does a survey of children's favourite breakfast cereals.

These are the results for Class 6


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


1 mark

These are the results for Class 5


How many children in both classes like Honey Bites best?


1 mark
35. Here are four triangles drawn on a square grid.


Write the letter for each triangle in the correct region of the sorting diagram.
One has been done for you.

|  | has a <br> right angle | has an <br> obtuse angle |
| :---: | :---: | :---: |
| A |  | has <br> is isosceles |
|  | A angles |  |$|$|  |
| :--- |

36. 



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

|  |  | Hull | York | Leeds |
| :--- | :---: | :---: | :---: | :---: |
| Adult | single | $£ 12.50$ | $£ 15.60$ | $£ 10.25$ |
|  | return | $£ 23.75$ | $£ 28.50$ | $£ 19.30$ |
|  | 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?


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

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


From the graph, what was the weight of the baby at $\mathbf{1 0}$ months?


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


1 mark
38. 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.

39.

$A$ is the point $(10,60)$
$B$ is the point $(20,20)$
$\mathbf{M}$ is the midpoint of line $A B$.
Write the coordinates of $\mathbf{M}$.


1 mark
$\mathbf{C}$ is on the $x$-axis, directly below $\mathbf{B}$.
Write the coordinates of $\mathbf{C}$.


1 mark
40.


This chart shows the amount of money spent in a toy shop in three months.


How much more money was spent in the shop in December than in November?


1 mark

Stepan says,
'In November there was a 100\% increase on the money spent in October'.

Is he correct?
Circle Yes or No.
Explain how you can tell from the chart.
$\qquad$
$\qquad$
$\qquad$
41.


This chart shows the musical instruments some children play.

|  | Lena | John | Rashid | Nicola | Yin |
| :---: | :---: | :---: | :---: | :---: | :---: |
| drums | $\sqrt{ }$ | $\sqrt{ }$ |  | $\sqrt{ }$ |  |
| keyboard |  |  | $\sqrt{ }$ |  |  |
| trumpet | $\sqrt{ }$ |  |  |  | $\sqrt{ }$ |
| recorder |  |  | $\sqrt{ }$ | $\sqrt{ }$ | $\sqrt{ }$ |
| piano | $\checkmark$ | $\sqrt{ }$ | $\sqrt{ }$ |  |  |

Who plays both recorder and drums?
$\qquad$

How many children play more than two musical instruments?


1 mark
42. Write these numbers in the correct places on the Venn diagram.

Some numbers are already placed.

## 99170221


43. 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 $40^{\circ} \mathrm{C}$


1 mark
Read from the graph how many minutes the temperature is above $60^{\circ} \mathrm{C}$

44.


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?


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

45.


A camping shop sells tents, sleeping bags and backpacks.

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


| tents |  |  |
| :--- | :--- | :--- |
| sleeping bags | $\square$ | $\square$ |

The shop had $\mathbf{2 0}$ 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
46. Tony and Gemma looked for snails, worms, slugs and beetles in their gardens.


They each made a pie chart of what they found.


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.
$\qquad$
$\qquad$
$\qquad$
47.


These are the opening times at a swimming pool.

|  | opening times |  |  |
| :---: | :---: | :---: | :---: |
|  | am |  | pm |
| Monday | Pool closed |  |  |
| Tuesday |  |  |  |
| Wednesday | 10:30 | to | 5:30 |
| Thursday | 10:30 | to | 8:30 |
| Friday | 10:30 | to | 9:00 |
| Saturday | 8:00 | to | 6:00 |
| Sunday | 7:00 | to | 4:00 |

How many hours is the pool open on a Sunday?

Which day has the latest closing time?
$\qquad$
1 mark

Habib arrives at the pool at 5:20pm on Saturday.
How many minutes is it before the pool closes?


1 mark
48. 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?

49. $\quad \boldsymbol{n}$ stands for a number.

Complete this table of values.

50. Five children collect money to plant trees.


Here is a bar chart of the amounts they have raised so far.


Their target is $£ 40$ altogether.
How much more money do they need to reach the target?

51.


Emma parks her car at 9.30 am.
She collects the car at $\mathbf{1 . 2 0} \mathbf{~ p m}$.
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.
$\qquad$
$\qquad$
$\qquad$
52. These are the times letters are collected from a post box.

| Monday to Friday | Saturday | Sunday |
| :---: | :--- | :--- |
| 8 am |  | no |
| 2 pm | $11: 30 \mathrm{am}$ | collection |
| $6: 30 \mathrm{pm}$ |  |  |

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?


1 mark

Gareth posts a letter on Saturday at 3pm.
When is it collected from the post box?
$\qquad$
53. Tom, Amy and Helen want to go on a boat trip.


There are three boats.

| Lark | Heron | Kestrel |
| :---: | :---: | :---: |
| 50 minute <br> trip | 70 minute <br> trip | 90 minute <br> trip |
| Tickets |  |  |
| £2.75 |  |  |
| each | Tickets <br> £3.50 <br> each | Tickets <br> £4.20 <br> 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?


1 mark

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


1 mark
54. Patterns are printed on T -shirts.


A shop sells 3 sizes of T-shirt, small, medium and large.

The table shows the number of T-shirts sold in one week.

| T-shirts sold in one week |  |  |  |
| :---: | :---: | :---: | :---: |
| Sizes |  | Pattern |  |
| small | 8 | 17 | 15 |
| medium | 11 | 14 | 9 |
| large | 14 | 5 | 8 |

How many medium T-shirts are sold in the week?


1 mark

How many T-shirts with ${ }^{\circ}$ on them are sold in the week?


1 mark
55.


|  | Weston Castle Opening Times |  |
| :---: | :---: | :---: |
| July 1st <br> to <br> August 31st | September 1st <br> to <br> June 30th <br> to <br> Friday | $10 \mathrm{am}-7 \mathrm{pm}$ |
| Saturday <br> and <br> Sunday | $9 \mathrm{am}-8 \mathrm{pm}$ | closed |

At what time does the castle close on Wednesday July $15^{\text {th }}$ ?


1 mark

For which months is the castle open seven days a week?
$\qquad$

On Sunday March $8^{\text {th }}$ John goes into the castle at $\mathbf{3} \mathbf{~ p m}$.
He stays until closing time.
For how many hours does he stay in the castle?


1 mark
56. 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 |

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?

Explain how you know.
$\qquad$
$\qquad$
$\qquad$
57. 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.

58. 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.
$\qquad$
$\qquad$
$\qquad$

What is the mean rainfall for the four months?


1 mark
59.


Here are the times of some television programmes.

| Channel 1 |  |
| :---: | :--- |
| 7.00 | Cartoon |
| 7.15 | Film |
| 9.00 | News |
| 9.30 | Weather |
| 9.35 | Sport |
| 10.20 | Drama |


| Channel 2 |  |
| ---: | :--- |
| 7.00 | Local News |
| 7.45 | Quiz Show |
| 8.30 | Comedy |
| 9.00 | Hospital Drama |
| 10.00 | Pop Chart |
| 10.40 | Film |

What is showing on Channel 2 at ten minutes to eight?


1 mark

Tom watches Hospital Drama and then changes to Channel 1 at the end.
What is showing on Channel 1 when he changes channel?


1 mark

The film on Channel 2 starts at $\mathbf{1 0 . 4 0}$
It lasts for one and a half hours.
At what time does the film end?


1 mark
60. 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.
$\qquad$
$\qquad$
$\qquad$
61. Chris did a survey of the number of people who went into shops in one hour.


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?


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

62. Gavin was ill in March.


This is his temperature chart.

Gavin's temperature chart


For how many days was his temperature marked as more than $37^{\circ} \mathrm{C}$ ?


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.
Give your answer to $\mathbf{1}$ decimal place.


1 mark
63. Kelly chooses a section of a newspaper.

It has $\mathbf{5 0}$ words in it.
She draws a bar chart of the number of letters in each word.


## 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.

