1. Park School collects money for three charities.

This pictogram shows how much they have collected.

stands for £100

| $\bigcirc$ Save Dolphins | $囚$ | $\otimes$ | $\Theta$ | $\Theta$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| ( Wildwatch | $\otimes$ | $\otimes$ | 0 |  |  |
| 5 Plant-a-Tree |  |  |  |  |  |

How much more have they collected for Save Dolphins than Plant-a-Tree?


1 mark

The target for Wildwatch is $£ 500$
How much more money do they need to collect for Wildwatch?


1 mark

How much money have they collected altogether, rounded to the nearest hundred pounds?

## $£$

1 mark
2. 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?


1 mark

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


1 mark
3. 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

4. Here is a diagram for sorting shapes.

One of the shapes is in the wrong place.
Put a cross ( $\mathbf{X}$ ) on it.

5. 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 3 pm ?


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 |

6. Here are four labels.


Write each label in the correct position on the sorting diagram below.

7. 40 children each chose their favourite flavour of yogurt. This chart shows the results.
yogurt flavour

| peach |  | banana |  |  | lemon |  | raspberry |  |  |  | plain |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

How many children chose lemon yogurt?
$\square$

How many more children chose raspberry than plain yogurt?


1 mark
8. Here are two spinners, $P$ and $Q$.

Spinner $P$ has 4 equal sections.
Spinner $Q$ has 6 equal sections.


P

$Q$

Ben spins the pointer on each spinner.

For each statement below, put a tick $(\checkmark)$ if it is correct. Put a cross (X) if it is not correct.

Ben is more likely to score 4 on spinner P than on spinner Q .

The score on spinner $P$ is certain to be less than the score on spinner $Q$.


Ben is equally likely to score an even number on spinner P and spinner Q .

A score of less than 3 is equally likely on spinner $P$ and spinner $Q$.
9. 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
10. 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
11. Here are two spinners, A and B.


A


B

Hassan spins the pointer on each spinner.
He adds his two scores together.
For each statement put a tick $(\checkmark)$ to show if it is certain, possible or impossible.
One has been done for you.


|  | certain | possible | impossible |
| :--- | :--- | :--- | :--- |
| The total |  |  |  |
| will be more than 15 |  | $\square$ | $\square$ |
| The total will be |  |  |  |
| an even number |  | $\square$ | $\square$ |
| The total will be less than 6 | $\square$ | $\square$ |  |
| The score on A will be less |  |  |  |
| than the score on B . | $\square$ | $\square$ | $\square$ |

12. 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?


How many more boys chose lions than elephants?


1 mark

Which animal was chosen by the greatest number of children?
$\qquad$
1 mark
13. 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?


1 mark

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

1 mark
14. 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
15. Rosie collects data about birds visiting a bird table.

Here are her results.

| Blackbird | HI |
| :--- | :--- |
| Sparrow | $\\|$ |
| Robin | $\\|\\|$ |
| Blue tit | $\\|\\|$ |
| Other | HI |



Draw two more lines to complete the graph.


1 mark

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


1 mark
16. 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?


On which days are Lin and Rosie both free to go out together?
$\qquad$
17. 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.

18. 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
19. 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
20. 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.

21. 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 .

22. 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
23. Sapna makes up a game using seven cards.

Here are the cards.

Josh picks a card without looking.
If Josh picks an odd number then Sapna scores a point.
If Josh picks an even number then Josh scores a point.
Is this a fair game?
Circle Yes or No.
Yes / No
Explain how you know.
$\qquad$
$\qquad$
$\qquad$
24. 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?


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


1 mark
25. 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 $\left(\boldsymbol{K}_{\text {) if }}\right.$ it is not correct.

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. $\square$
26. 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.


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


1 mark
27. Here is a spinner which is a regular octagon.

Write 1, 2 or 3 in each section of the spinner so that 1 and 2 are equally likely to come up and 3 is the least likely to come up.

28. 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.
$\qquad$
$\qquad$
$\qquad$
29. 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 |  |  |  |

30. 



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 $\qquad$
31. 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 $20^{\circ} \mathrm{C}$ ?


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


1 mark
32. 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 |  |  |

33. 



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?
$\qquad$
34. 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
35.


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
36. 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
37. 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
38. 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.
$\qquad$
$\qquad$
$\qquad$
39. 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
40. Here is a diagram for sorting numbers.

Write one number in each white section of the diagram.

41. Here is a square spinner.


Look at these statements.
For each one put a tick $(\checkmark)$ if it is correct.
Put a cross ( $\mathbf{X}$ ) if it is not correct.
'4' is the most likely score. $\square$
' 2 ' and ' 4 ' are equally likely scores. $\square$

Odd and even scores are equally likely. $\square$
A score of ' 3 ' or more is as likely as a score of less than ' 3 '. $\square$
42. A shop sells greetings cards.

Each card has a price code on it.
These are the codes.

| code | price |
| :---: | :---: |
| AA | 75 p |
| BB | $£ 1.15$ |
| CC | $£ 1.55$ |
| DD | $£ 1.70$ |
| EE | $£ 1.99$ |



Tina buys two cards.
One card has code AA on it.
The other card has code DD on it.
How much does Tina pay?
£
1 mark

Omar buys a card. He pays with a $£ 2$ coin.
He gets 45p change.
What is the code on his card?
43. This graph shows the cost of phone calls in the daytime and in the evening.



How much does it cost to make a 9 minute call in the daytime?


1 mark
How much more does it cost to make a 6 minute call in the daytime than in the evening?

44. 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 |


45. Dan has a bag of seven counters numbered 1 to 7

Abeda has a bag of twenty counters numbered 1 to 20
Each chooses a counter from their own bag without looking.
For each statement, put a tick $(\checkmark)$ if it is true.
Put a cross $\left(\mathbf{X}_{\text {) if it is not true. }}\right.$

Dan is more likely than Abeda to choose a ' 5 '


They are both equally likely to choose a number less than 3


Dan is more likely than Abeda to choose an odd number.


Abeda is less likely than Dan to choose a '10'

46. 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
47. 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 | 3 acute angles |
| :--- | :---: | :---: | :---: |
| is isosceles | A |  |  |

48. 



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?


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


1 mark
49. 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?


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


1 mark
50. This table shows the increase in bus fares.

| Bus Fares |  |
| :---: | :---: |
| old fare | new fare |
| $42 p$ | $48 p$ |
| $52 p$ | $57 p$ |
| $60 p$ | $72 p$ |
| $75 p$ | $85 p$ |
| $90 p$ | $£ 1.05$ |
| $£ 1.20$ | $£ 1.28$ |
|  |  |
|  |  |



Sohan's new bus fare is 72p.
How much has his bus fare gone up?


1 mark

Millie says,
'My bus fare has gone up by 10p'.
How much is Millie's new bus fare?


1 mark
51. Put a tick $(\sqrt{)})$ in each row to complete this table.

One has been done for you.

|  | greater than $\frac{1}{2}$ | less than $\frac{1}{2}$ |
| :---: | :---: | :---: |
| 0.9 |  |  |
| 0.06 |  |  |
| $\frac{11}{20}$ |  |  |
| 0.21 |  |  |

52. 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.

53. Here are two spinners, $A$ and $B$.

Each one is a regular hexagon.


For each statement, put a tick $\left(\mathbb{V}^{\text {}}\right.$ ) if it is true.
Put a cross $\left({ }^{\circ}\right.$ if it in not true.

Scoring ' 1 ' is more likely on $A$ than on $B$.


Scoring ' 2 ' is more likely on A than on B.


Scoring ' 3 ' is as equally likely on $A$ as on $B$.

Zara spins both spinners.
The score on A is added to the score on B .
She says,
'The sum of the scores on both spinners is certain to be less than 7 '.

Is she correct?
Circle Yes or No.

Explain how you know.
$\qquad$
$\qquad$
$\qquad$
54.

$A$ 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
55.


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.
$\qquad$
$\qquad$
$\qquad$
56.


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
57. Write these numbers in the correct places on the Venn diagram.

Some numbers are already placed.

## 99170221


58. 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 $60^{\circ} \mathrm{C}$

59. Write each of these numbers in its correct place on the sorting diagram.

60.


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?

61.


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?

62. The spinner is divided into nine equal sections.


Which two different numbers on the spinner are equally likely to come up?


1 mark

Meera says,
'2 has a greater than even chance of coming up'.
Explain why she is correct.
$\qquad$
$\qquad$
$\qquad$
63. 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


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.
$\qquad$
$\qquad$
$\qquad$
64.


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
65. 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?

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

Complete this table of values.

67. Katie made two spinners, A and B.

spinner A

spinner B

She says,
'Scoring a 1 on spinner A is just as likely as scoring a 1 on spinner $B^{\prime}$.

Explain why Katie is correct.
$\qquad$
$\qquad$
$\qquad$
68. This table shows the cost of sending a letter.

| Mass | Cost in pence |  |
| :--- | :---: | :---: |
|  | first <br> class | second <br> class |
| up to 60 g | 26 | 20 |
| 61 g to 100 g | 39 | 31 |
| 101 g to 150 g | 49 | 38 |
| 151 g to 200 g | 60 | 45 |
| 201 g to 250 g | 70 | 55 |

Paul is sending a letter.
It costs 38 p second class.
How much would it cost him to send it first class?


1 mark

Jenny has a letter with a mass of $\mathbf{1 7 0 g}$.


What does it cost to send if first class?

69. 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?

70.


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.
$\qquad$
$\qquad$
$\qquad$
71. Here are two bags.

Each bag has 3 white balls and one black ball in it.


A ball is taken from one of the bags without looking.

What is the probability that it is a black ball?
Give your answer as a fraction.


1 mark
All the balls from both bags are now mixed together in a new bag.


Put a cross ( ) on this line to show the probability of taking a black ball from the new bag.



1 mark
72. The outer ring of this spinner has $\mathbf{8}$ sections labelled with the numbers $\mathbf{1}$ to 5 . The inner ring has 12 equal sections on it.


Laura spins the pointer.
Which is the pointer most likely to stop on?


Give a reason for your answer.
 $\qquad$
$\qquad$
$\qquad$

What is the probability of getting an even number on this spinner?
Give your answer as a fraction.


1 mark
73. 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?
time
1 mark
74. 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?


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


1 mark
75. Here is the calendar for August 1998.

August 1998
Sun Mon Tues Wed Thur Fri Sat

|  |  |  |  |  |  | 1 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| 9 | 10 | 11 | 12 | 13 | 14 | 15 |
| 16 | 17 | 18 | 19 | 20 | 21 | 22 |
| 23 | 24 | 25 | 26 | 27 | 28 | 29 |
| 30 | 31 |  |  |  |  |  |

Simon's birthday is on August 20th.
In 1998 he had a party on the Sunday after his birthday.
What was the date of his party?


Tina's birthday is on September 9th.
On what day of the week was her birthday in 1998 ?
$\qquad$
1 mark
76. Samir spins a fair coin and records the results.


In the first four spins 'heads' comes up each time.

| 1 st <br> spin | 2nd <br> spin | 3rd <br> spin | 4 th <br> spin |
| :---: | :---: | :---: | :---: |
| Head | Head | Head | Head |

Samir says,

## 'A head is more likely than a tail'.

Is he correct? Circle Yes or No.
Yes / No

Give a reason for your answer.
$\qquad$
$\qquad$
$\qquad$
77. Harry has six tins of soup.

The labels have fallen off.
Here are the labels and tins.


## Mushroom

 Soup

Harry chooses a tin.
What is the probability that it is a tin of Pea Soup?
Give your answer as a fraction.


1 mark

What is the probability that the tin he chooses is NOT a tin of Tomato Soup?
Give your answer as a fraction.


1 mark
78. 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 K on them are sold in the week?

1 mark
79.


|  | Weston Castle Opening Times |  |
| :--- | :---: | :---: |
| July 1st <br> to <br> August 31st | September 1st <br> to <br> June 30th |  |
| Monday <br> to <br> Friday | $10 \mathrm{am}-7 \mathrm{pm}$ | closed |
| Saturday <br> and <br> Sunday | $9 \mathrm{am}-8 \mathrm{pm}$ | $1 \mathrm{pm}-5 \mathrm{pm}$ |

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
80. 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.
$\qquad$
$\qquad$
$\qquad$
81. Lee has two spinners.


What is the probability of spinning a $\mathbf{4}$ on spinner $\mathbf{A}$ ?
Write your answer as a fraction.


1 mark

On which spinner is he more likely to get a $\mathbf{1}$ ?


Give a reason for your answer.
$\qquad$
$\qquad$
$\qquad$

Lee says,
'I am equally likely to get a $\mathbf{2}$ on spinner $A$ as on spinner $B$ '.
Explain why he is correct.
$\qquad$
$\qquad$
$\qquad$
82. Megan spins the pointers on these two spinners.

She adds the numbers together to make a total.


Here is a table to show all the possible totals.


Use the table to answer these questions.
What is the most likely total?


What is the probability of getting a total of $\mathbf{1}$ ?


1 mark

The total 3 and the total 11 are equally likely.
Explain how the table shows this.
$\qquad$
$\qquad$
$\qquad$
83. 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.
$\qquad$
$\qquad$
$\qquad$
84. 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
85. Mel uses an 8-sided spinner.


Draw lines to show how likely the following are.

86.


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?
$\qquad$

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

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
87. Seven number cards are in a bag.


Jill takes one card out and finds the total of the two numbers.
She then puts the card back in the bag.

This is a graph of Jill's results after doing this $\mathbf{1 0 0}$ times.



Give the reason why the 'total 7' never came up.
.................................................................................................................................................
$\qquad$

Give the reason why the 'total 6' came up most often.
......................................................................................................................................
$\qquad$
88. 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.
$\qquad$
$\qquad$
$\qquad$
89. 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 $\mathbf{1 1}$.


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

|  | Number of people who went into a shop HH stands for 5 people |  |
| :---: | :---: | :---: |
|  | Shoe shop | H+ + |
|  | Newsagent | IIII |
| - | Post Office | H+ H+ + + + +11 |
| Ver | Bread shop | HH HH III |
|  | Supermarket | H+ + + + ${ }^{+11}$ |

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.


1 mark
91. This table shows the distances in kilometres between five towns.


Use the table to find the distance from London to Manchester.


James goes from Newcastle to Birmingham, and then on to Cardiff.
How many kilometres does he travel?

92. 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
93. 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.

