**2020 revision of learning you will have done in previous years**

**Other types of charts**

**Q1.**

Amy did a survey of what time people get up on a Sunday morning.  
This table shows her results for 150 people.

|  |  |  |
| --- | --- | --- |
|  | Time | number of people |
|  | before 7 am | 13 |
|  | 7:00 am to 7:59 am | 28 |
|  | 8:00 am to 8:59 am | 59 |
|  | 9:00 am to 9:59 am | 36 |
|  | 10 am and after | 14 |

Look at the table.

How many people get up at **8 am or later**?



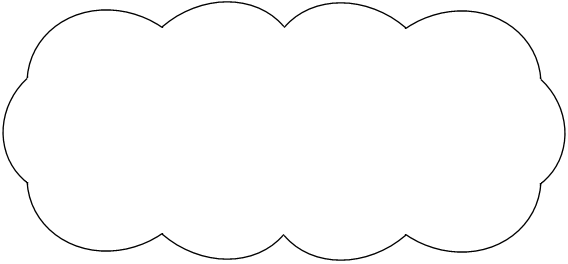
1 mark

Amy says,

***'Two-thirds of the 150 people in the survey get up before 9 am.'***

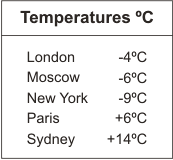
Amy is correct.

Explain how you know.



**Q2.**

Here is a table of temperatures at dawn on the same day.



What is the **difference** in temperature between **London** and **Paris**?



At noon the temperature in **New York** has **risen by 5°C.**

What is the temperature in **New York** at noon?

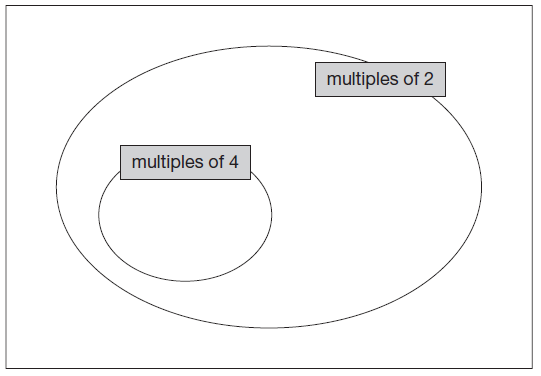


**Q3.**

Here is a Venn diagram for sorting numbers.

Write each number in its correct place on the diagram.

 10       11       12       13



**Q4**

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 |

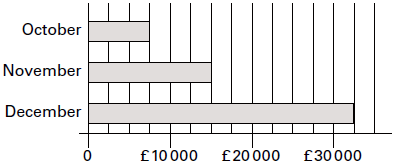
What is the total cost for a **return** journey to York for one adult and two children?

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

**Q5.**



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

Stephan says,

***'In November there was a 100% increase on the money spent in October'***

Is he correct?

          Circle **Yes** or **No**.                                                                        Yes  /  No

Explain how you can tell from the chart.

**Q6.**

|  |  |
| --- | --- |
| People in a village were asked if they shop in the village, or in the town, or in both.  The bar chart shows the results. |  |



Altogether **246** people took part in the survey.

How many people shop in **both** the village and the town?

**Q7.**

Here is information about pupils in a class.

•     The total number of pupils is 30

•     26 of the pupils do not wear glasses.

•     A quarter of the pupils who do wear glasses are boys.

•     There are 2 more boys than girls.

Use the information to fill in the missing numbers in the table below.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | Number who **do** wear glasses | Number who **do not** wear glasses | Total |
|  | Number of boys |  |  |  |
|  | Number of girls |  |  |  |
|  | Total |  |  | 30 |

**Q8.**

This table shows the number of things to eat in **five** children’s lunch boxes.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  | **sandwiches** | **apples** | **bananas** | **fruit bars** |
|  | **Lisa** | 1 | 2 | 0 | 2 |
|  | **Jack** | 2 | 0 | 2 | 1 |
|  | **Kemi** | 1 | 1 | 0 | 2 |
|  | **Nik** | 1 | 2 | 1 | 0 |
|  | **Ben** | 2 | 1 | 2 | 1 |

Here is a graph of the information for **four** of the children.



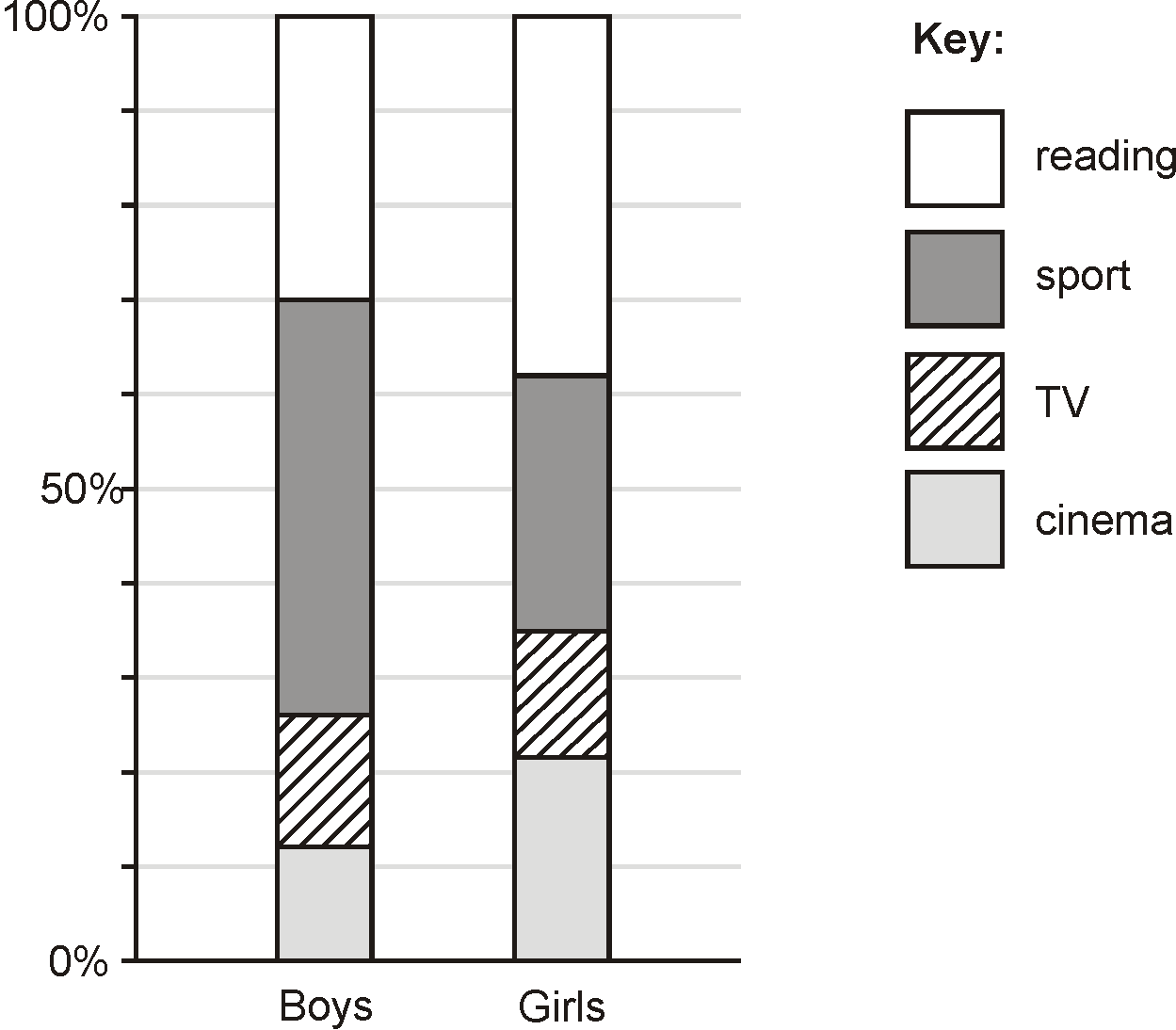
Which child’s information is missing from the graph? Explain how you know.

**You may not have seen the following two types of charts before, but give them a go**

**Q9.**

Alfie asks some boys and girls about their favourite hobby.

He shows the results on a graph.



The graph shows that **44%** of boys chose sport.

Estimate the percentage of **girls** who chose sport.



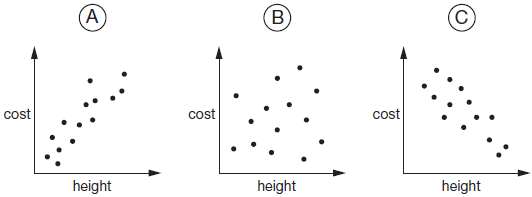
**120** boys chose reading.

Estimate the **number** of boys who chose **cinema**.



**Q10.**

Here are three scatter graphs showing the heights of people and the cost of clothes.



Chen says,

***‘The taller you are, the more your clothes cost.’***

Megan says,

***‘The shorter you are, the more your clothes cost.’***

Alfie says,

***‘There is no relationship between your height and what  
your clothes cost.’***

Write the letter of each scatter graph that shows what each person says.

  Chen\_\_\_\_\_\_\_\_\_\_\_\_ Megan \_\_\_\_\_\_\_\_\_\_\_\_ Alfie \_\_\_\_\_\_\_\_\_\_\_\_

1 mark

**M1.**          (a)     109

**1**

(b)     An explanation that recognises that 100 people get up before 9am  
which is two-thirds of the total (150).

■        ‘13 + 28 + 59 = 100 which is two-thirds of the total’

■        ‘ of 150 = 50 and 2 × 50 = 100’

■        ‘ of 150 is 100’

■        ‘36 + 14 = 50 which is one-third after 9am’

***Do not*** *accept vague or incomplete explanations, eg:*

*■   ‘One-third are 9 o’clock or later’*

*■   ‘100 got up at 9am’*

*■   ‘Twice as many got up before 9am.’*

*■   ‘13 + 28 + 59 = 100’*

**U1**

**[2]**

**M2.**          (a)     10

*Accept +10* ***OR*** *–10*

***Do not*** *accept an incomplete calculation, eg:* ***4 + 6***

**1**

(b)     –4

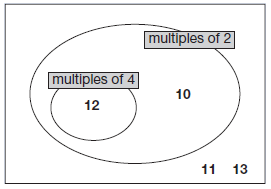
*Accept ‘negative 4’* ***OR*** *‘minus 4’* ***OR*** *‘4 below’.*

***Do not*** *accept ‘4–’.*

**1**

**[2]**

**M3.**          Award **TWO** marks for all four numbers correctly placed as shown:



If the answer is incorrect, award **ONE** mark for three numbers correctly placed.

*Accept alternative unambiguous indications, eg lines drawn from the numbers to the appropriate regions of the diagram.*

***Do not*** *accept numbers written in more than one region*

**Up to 2**

**[2]**

**M4.**          (a)     £64.30

*Accept £64.30p* ***OR*** *£64 30*

***Do not*** *accept £6430* ***OR*** *£6430p* ***OR*** *£64.3*

**1**

(b)     £4.50

*Accept £4.50p* ***OR*** *£4 50*

***Do not*** *accept £450* ***OR*** *£450p* ***OR*** *£4.5*

*If the final ‘0’ is missing from both answers, ie answers given are £64.3 and £4.5 respectively, award* ***ONE*** *mark only in (b).*

**1**

**[2]**

**M5.**          (a)     £17 500

*Accept 17500 with or without commas or spaces.*

**1**

(b)     An explanation which recognises  
that November sales were double October, eg

•    ‘October was 7500 and November was 7500 more which is 100%’;

•    ‘November is twice October, which is 200%’.

*No mark is awarded for circling ‘Yes’ alone.*

***Do not*** *accept vague or arbitrary answers, eg*

*•    ‘November is more than October’;*

*•    ‘Because November is £15000’.*

*If ‘No’ is circled but a correct unambiguous explanation is given then award the mark.*

**1**

**[2]**

**M6.**         103

**2**

***or***

Shows a complete correct method with not more than one computational error, eg:

•        152 + 197 = 339 (*error*)         339 – 246 = 93

•        349 – 246 = 97 (*error*)

•        152 + 197 = 349         349 – 246

**1**

**[2]**

**M7.**          Completes all 8 entries of the table correctly, ie

|  |  |  |  |
| --- | --- | --- | --- |
|  | ... **do** wear glasses | ... **do not** wear glasses | Total |
| ... boys | 1 | 15 | 16 |
| ... girls | 3 | 11 | 14 |
| Total | 4 | 26 | 30 |

**2**

*or*

Completes at least four entries correctly

**1**

**U2**

**[2]**

**M8.**         Indicates Nik and gives a correct explanationeg

•      1 sandwich, 2 apples and 1 banana is missing from the graph and that is what Nik had in his lunch box

•      The graph shows the correct number of fruit bars and Nik is the only one who does not have a fruit bar in his lunch box so his must be the missing one

•      The totals from the table are 7, 6, 5, 6, and from the graph 6, 4, 4, 6, and the difference is Nik

*Accept minimally acceptable explanation eg •      1 sandwich, 2 apples, 1 banana •      Because the number of fruit bars is correct •      1 banana missing •      7, 6, 5, 6 and 6, 4, 4, 6 seen*

***Do not accept*** *incorrect or incomplete explanation eg •      1 sandwich, 2 apples •      There are 6 fruit bars •      2 apples are missing*

**U1**

**[1]**

**M9.**          (a)     Gives an answer in the range 25 to 29 inclusive

**1**

(b)     Gives an answer in the range 44 to 52 inclusive

**1**

**[2]**

**M10.**Identifies all three graphs correctly, ie:

•        Chen **A**      Megan **C**  Alfie **B**

*Accept unambiguous indications of the correct  
graph for each person, eg:*

*•    Names written on scatter graphs*

**[1]**