

MATHEMATICS

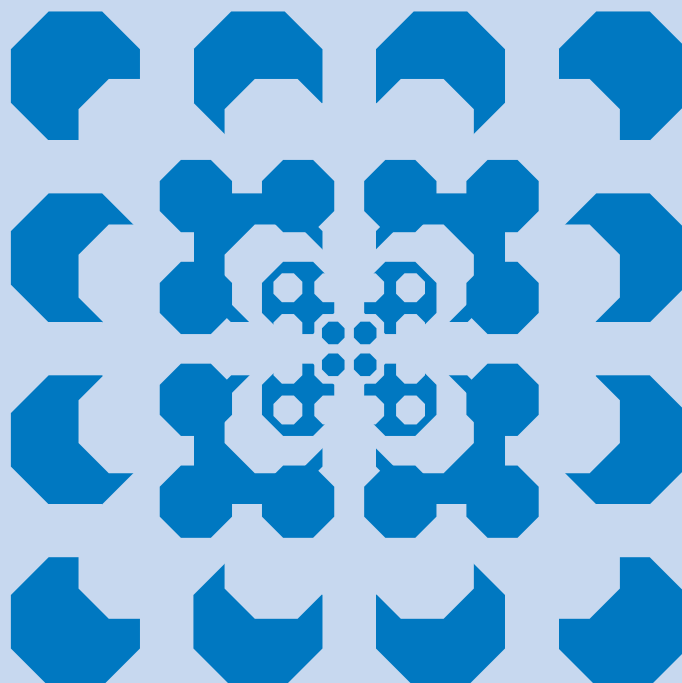
KEY STAGE 2 2006

TEST A

LEVELS
3–5

CALCULATOR NOT ALLOWED

| PAGE | MARKS |
|--------------|-------|
| 5 | |
| 7 | |
| 9 | |
| 11 | |
| 13 | |
| 15 | |
| 17 | |
| 19 | |
| 21 | |
| TOTAL | |



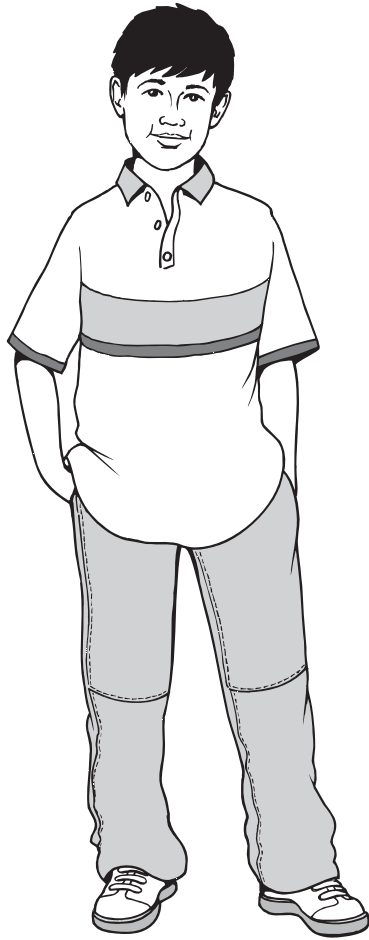
First Name

Last Name

School



Lin



David



Rosie

Instructions

You **may not** use a calculator to answer any questions in this test.

Work as quickly and as carefully as you can.

You have **45 minutes** for this test.

If you cannot do one of the questions, **go on to the next one**.

You can come back to it later, if you have time.

If you finish before the end, **go back and check your work**.

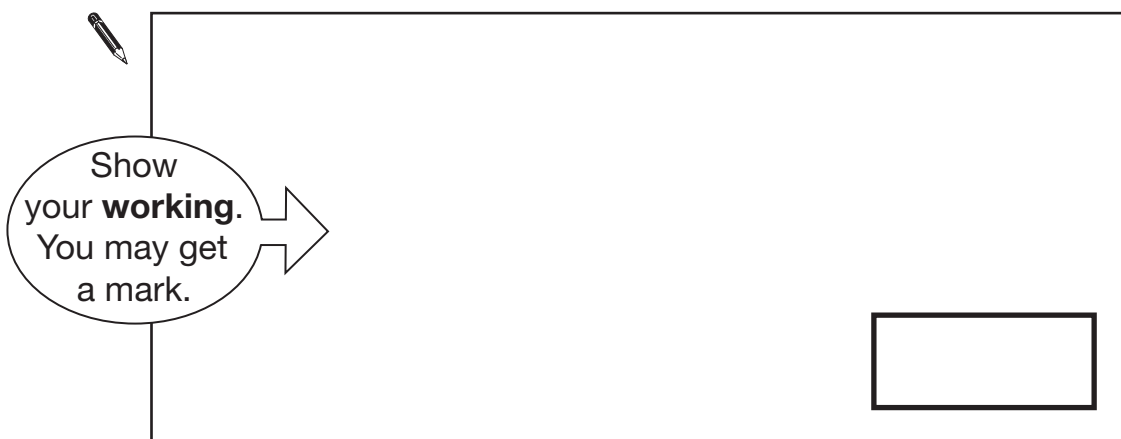
Follow the instructions for each question carefully.



This shows where you need to put the answer.

If you need to do working out, you can use any space on a page.

Some questions have an answer box like this:



For these questions you may get a mark for showing your working.

1

Write these numbers in order of size, starting with the smallest.

901

1091

910

109

190



| | | | | |
|--|--|--|--|--|
| | | | | |
|--|--|--|--|--|

smallest

1 mark

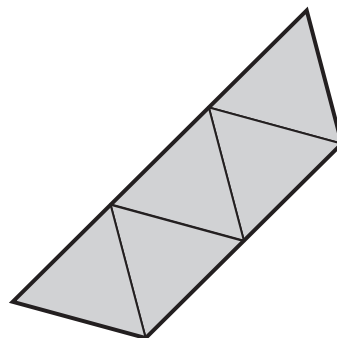
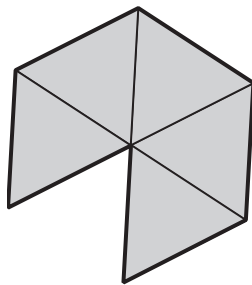
1

2

These two shapes are made from equilateral triangles.

Draw **one** line of symmetry on each shape.

Use a ruler.



1 mark

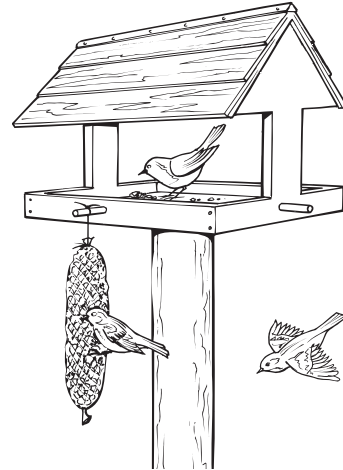
2

3

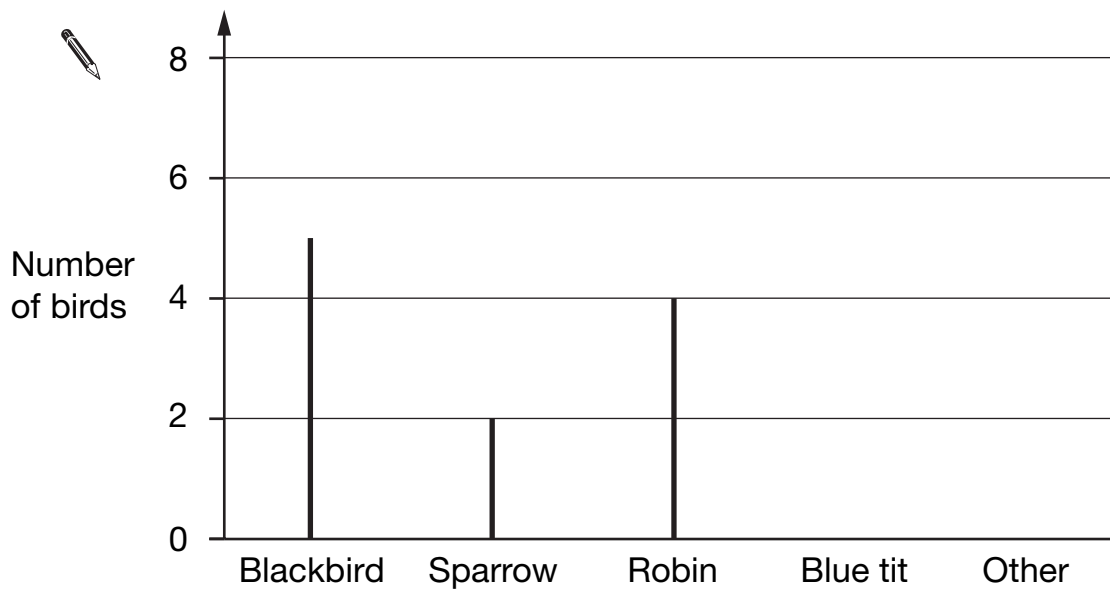
Rosie collects data about birds visiting a bird table.

Here are her results.

| | |
|-----------|---|
| Blackbird | / |
| Sparrow | |
| Robin | |
| Blue tit | |
| Other | / |



Draw **two** more lines to complete the graph.

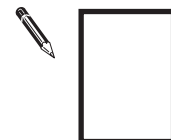


3a

1 mark

Rosie saw **20 birds** altogether.

What **fraction** of the birds were blackbirds?

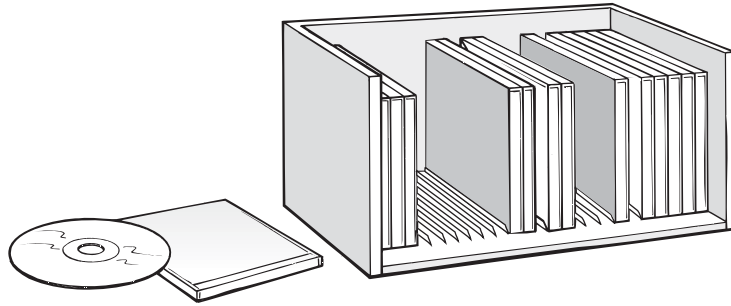


3b

1 mark

4

Here is a CD rack.



One rack holds **25** CDs.

David has **83** CDs.

How many racks does he need to hold **all** his CDs?



4a

1 mark

Lin has **6** racks **full** of CDs.

How many CDs does Lin have altogether?

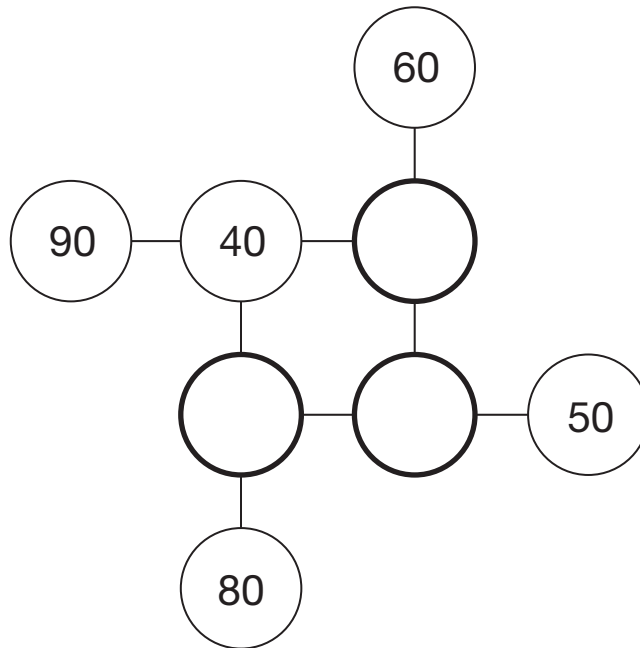


4b

1 mark

5

Complete this diagram so that the three numbers in each line add up to **150**



5

1 mark

6

A clock shows this time.



How long is it from this time until 5 pm?



6a

1 mark

What time was it quarter of an hour before the time on the clock?



6b

1 mark

7

Lin needs to solve this problem.

'How many children are in the class?'



Tick (✓) **all** the information that Lin needs to solve her problem.



There are 9 girls in the class.

5 girls in the class wear glasses.

There are twice as many boys as girls in the class.

7a

1 mark

David needs to solve this problem.

'How much do two oranges and one apple cost?'



Tick (✓) **all** the information that David needs to solve his problem.



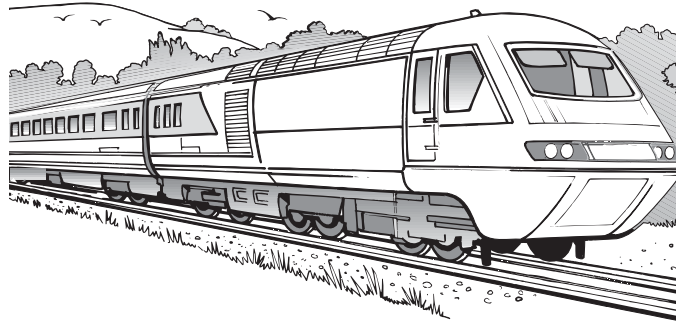
An orange costs 5p more than an apple.

An apple costs 20p

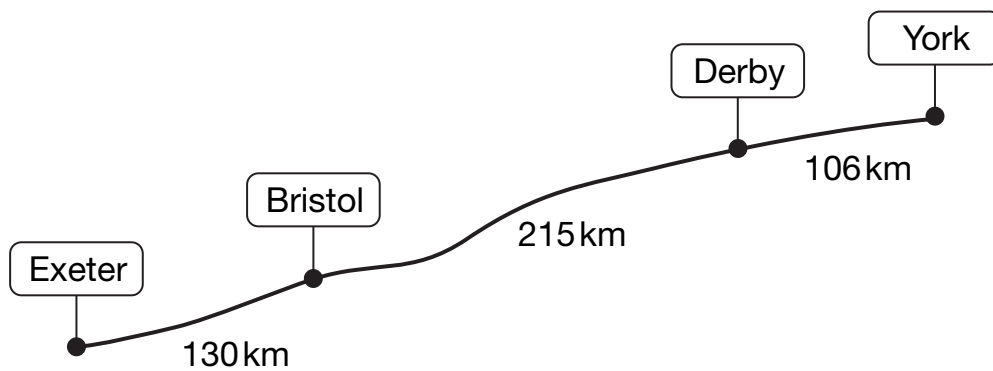
David has £1

7b

1 mark



The diagram shows distances on a train journey from Exeter to York.



How many kilometres is it altogether from **Exeter** to **York**?


 km

8a

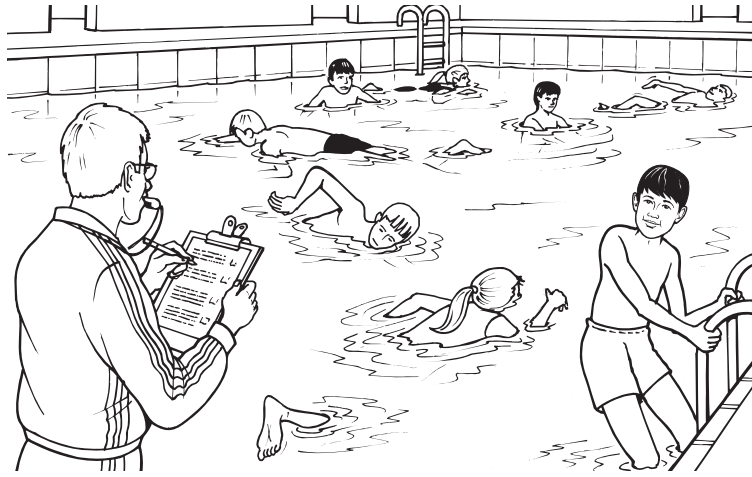
1 mark

What is the distance from **Derby** to **York** rounded to the nearest 10km?

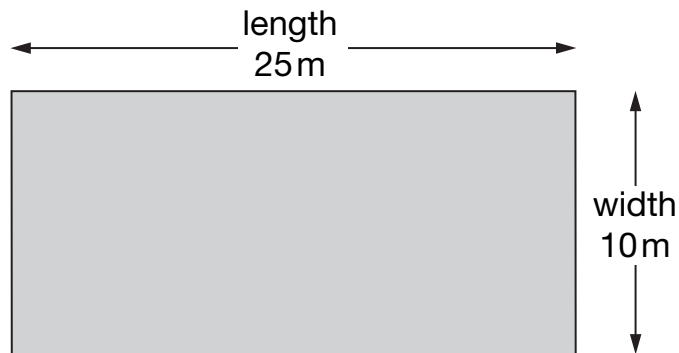

 km

8b

1 mark



A rectangular swimming pool is 25 metres long and 10 metres wide.



David swims **5 lengths**.

Rosie swims **12 widths**.

How much **further** does David swim than Rosie?



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

metres

9i

9ii

2 marks

10

Calculate $2006 - 289$



10

1 mark

11

Match each decimal number to its equivalent fraction.

One has been done for you.



0.25

$\frac{3}{4}$

0.4

$\frac{2}{10}$

0.75

$\frac{1}{4}$

0.2

$\frac{2}{5}$

11

1 mark

11

Total out of 4 _____

12

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

| | Emma | David | Lin | Jack | Rosie |
|-----|------|-------|-----|------|-------|
| Mon | | ✓ | ✓ | | ✓ |
| Tue | ✓ | | ✓ | ✓ | |
| Wed | | ✓ | | | ✓ |
| Thu | | | ✓ | ✓ | ✓ |
| Fri | ✓ | ✓ | | | ✓ |

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



12a

1 mark

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



12b

1 mark

13

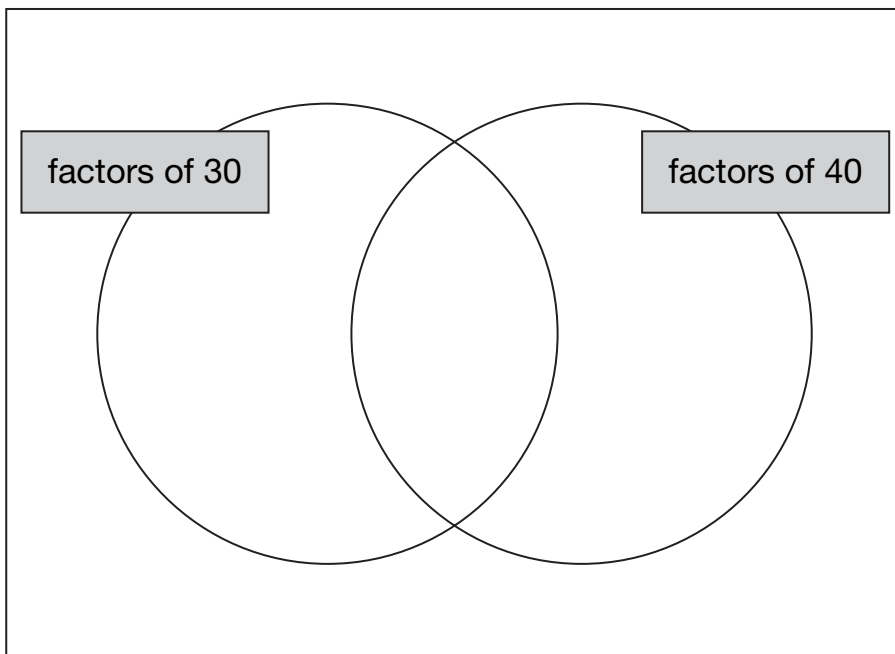
Write these numbers in the correct places on the diagram.

5

6

7

8



13i

13ii

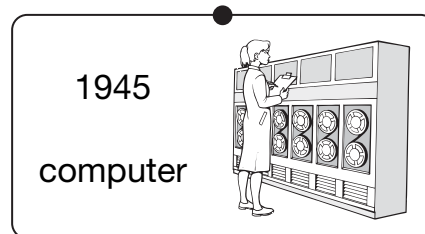
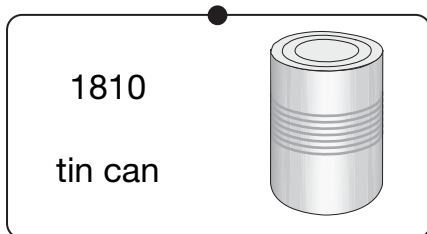
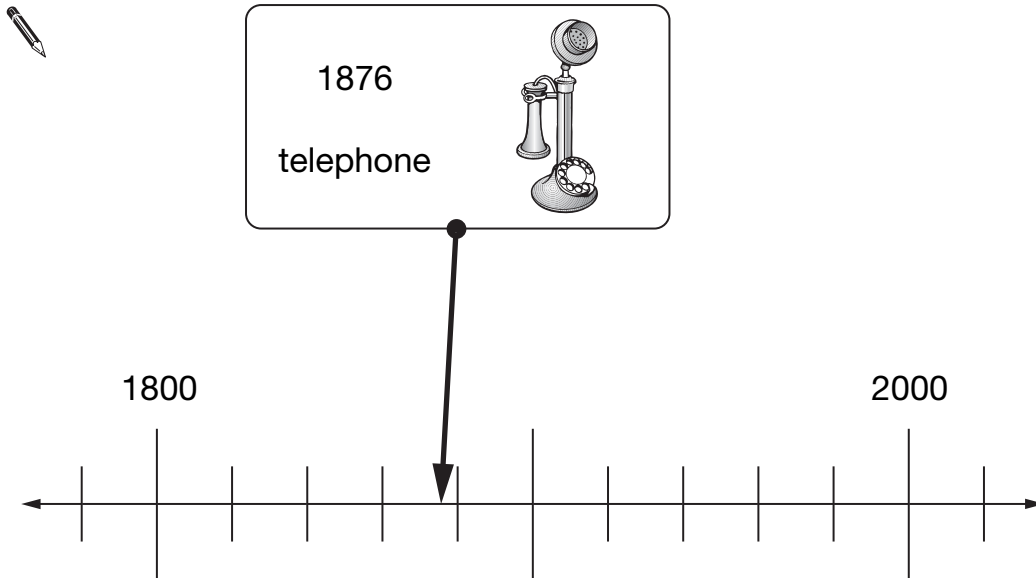
2 marks

14

Here is part of a time line.

Draw a line from each invention to the correct point on the time line.

One has been done for you.



14a

1 mark

14b

1 mark


15

Here is a number chart.
Every third number in the chart has a circle on it.

| | | | | |
|----|----|----|----|----|
| 1 | 2 | 3 | 4 | 5 |
| 6 | 7 | 8 | 9 | 10 |
| 11 | 12 | 13 | 14 | 15 |
| 16 | 17 | 18 | 19 | 20 |
| 21 | 22 | | | |

The chart continues in the same way.
Here is another row in the chart.

Draw the missing circles.



| | | | | |
|----|----|----|----|----|
| 71 | 72 | 73 | 74 | 75 |
|----|----|----|----|----|

15a

1 mark

Will the number **1003** have a circle on it?
Circle **Yes** or **No**.



Yes / No

Explain how you know.

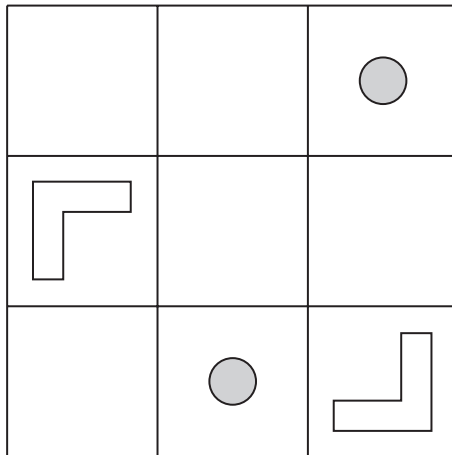


15b

1 mark

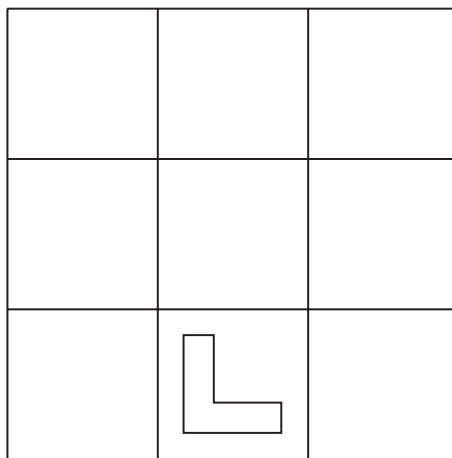
16

There are four shapes on this diagram.



The diagram is turned to the new position below.

Draw the three missing shapes.



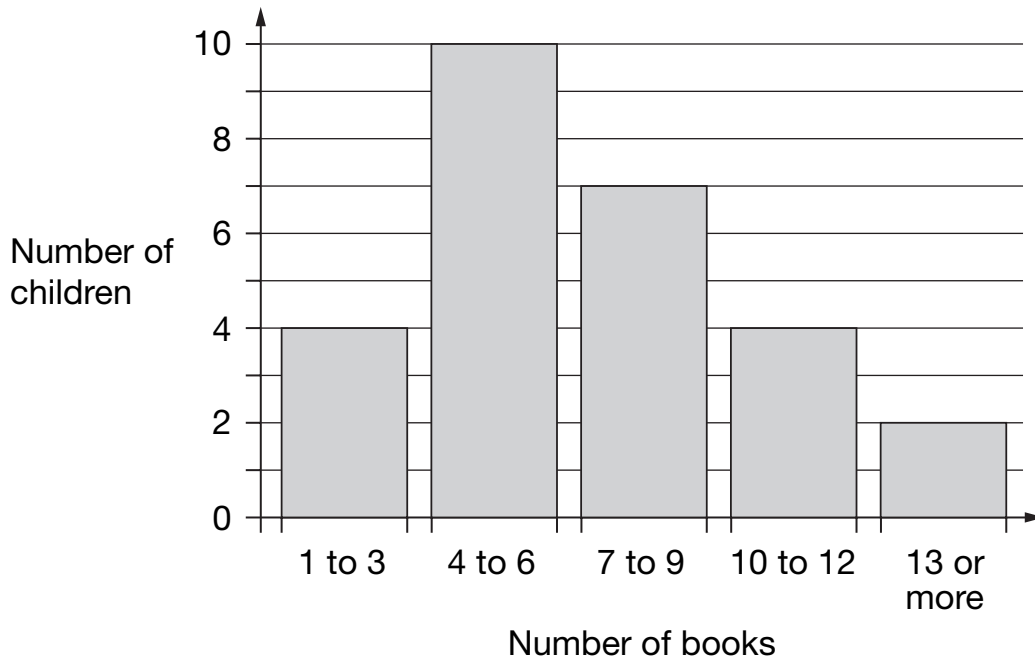
16i

16ii

2 marks

17

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



How many children altogether read **more than 9 books**?



17a

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.



17b

1 mark

18

Calculate $52.85 + 143.6$

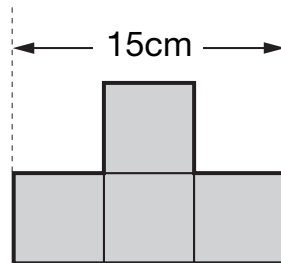


18

1 mark

19

This shape is made from 4 shaded squares.



Not
actual size

Calculate the perimeter of the shape.



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

19i

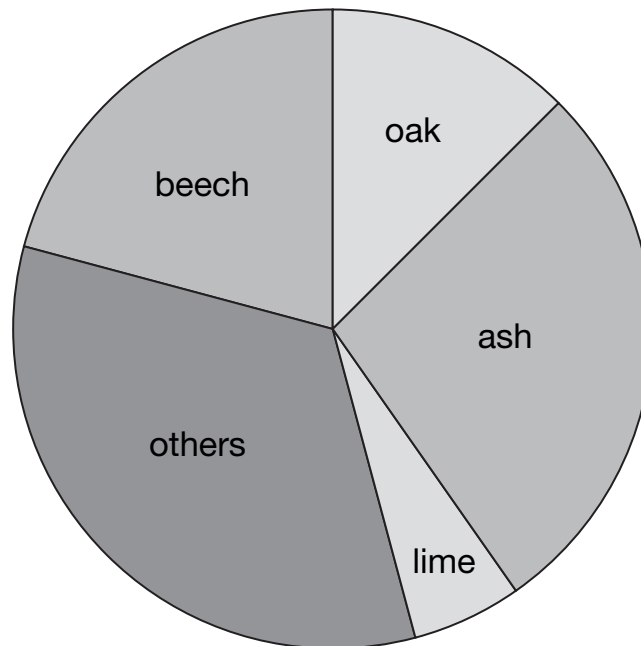
19ii

2 marks

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.



20a

1 mark

The children counted 60 **ash** trees.

Use the pie chart to estimate the **number** of **beech** trees they counted.



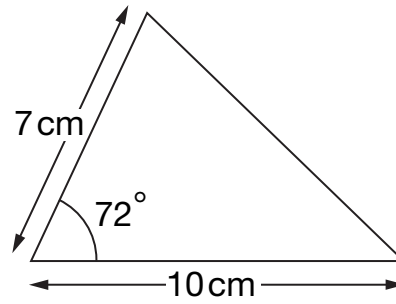
20b

1 mark

21

Here is a sketch of a triangle.

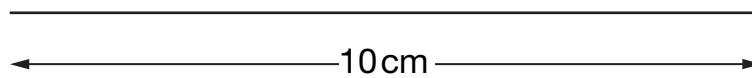
It is not drawn to scale.



Draw the full-size triangle **accurately** below.

Use a protractor (angle measurer) and a ruler.

One line has been drawn for you.



21i

21ii

2 marks

22

Calculate $848 \div 16$



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

22i

22ii

2 marks

23

k stands for a whole number.

$k + 7$ is greater than 100

$k - 7$ is less than 90

Find **all** the numbers that k could be.



23i

23ii

2 marks

End of test



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