# MATHEMATICS

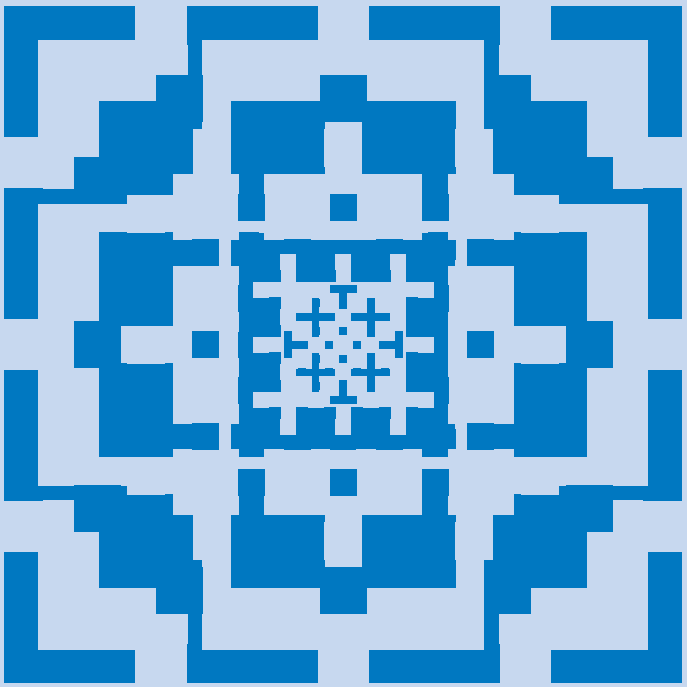
KEY STAGE 2 2006

TEST B | LEVELS 3–5

CALCULATOR ALLOWED

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

| BORDERLINE CHECK | |
|---|---|

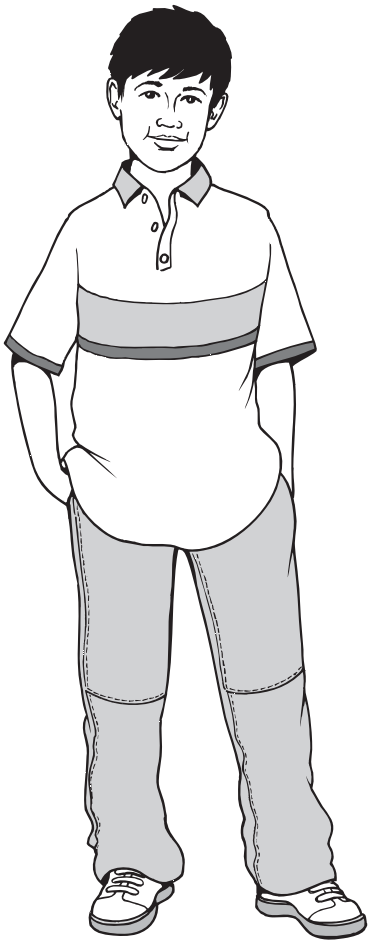


First Name

Last Name

School

Lin



David

Rosie

# Instructions

You **may** 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.

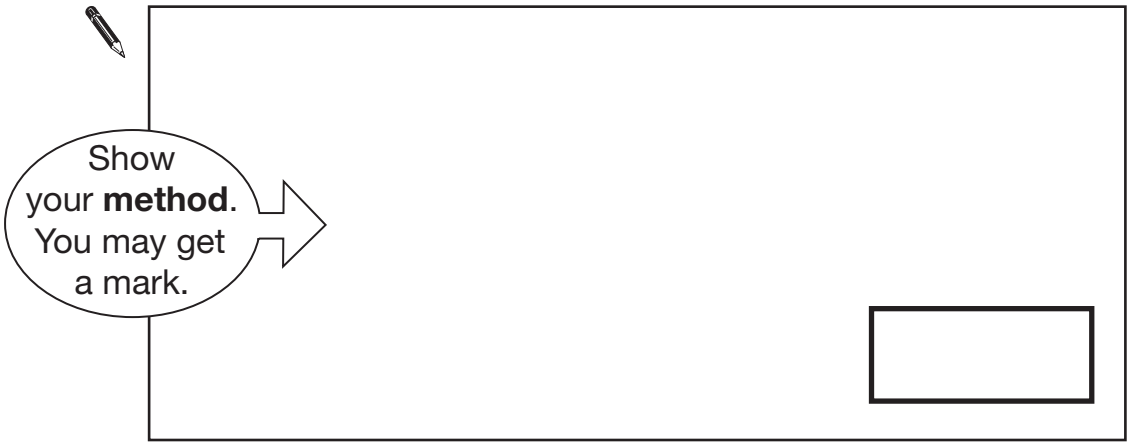
If you finish before the end, **go back and check your work**.

**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 method.

**1** Write in the missing numbers.

35 × ☐ = 140

1a

1 mark

633 – ☐ = 34

1b

1 mark

**2** Draw one line from **each calculation** on the left to the correct box on the right.

One has been done for you.

| | |
|---|---|
| 11 × 11 | greater than 100 |
| 4 × 5 × 6 | less than 100 |
| 56 + 27 + 17 | equal to 100 |
| 835 – 745 | |
| 4000 ÷ 50 | |

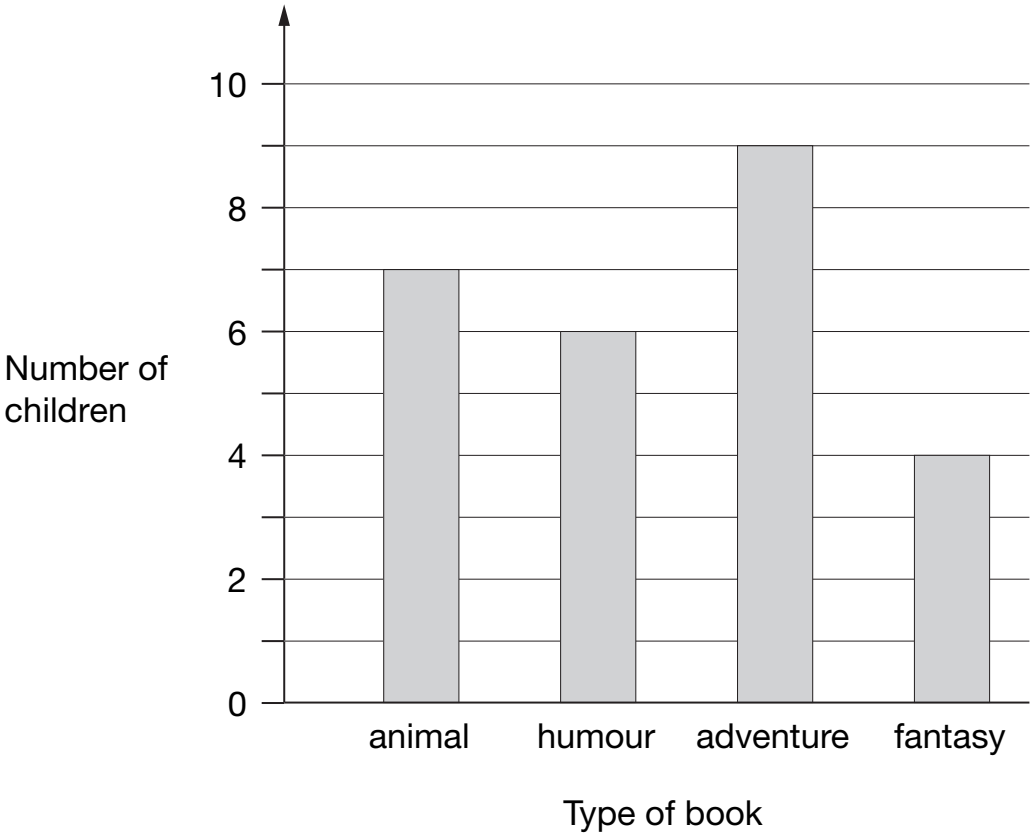
2i

2ii

2 marks

**3** 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?

3a

1 mark

Five girls chose **animal** books.

How many **boys** chose animal books?

3b

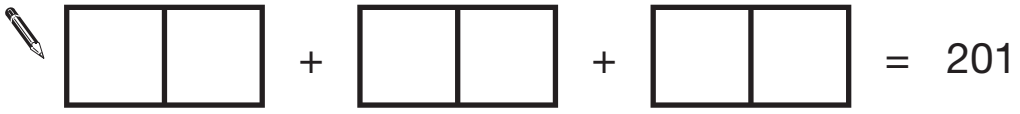
1 mark



Total out of 6 _____

**4** Each missing digit in this sum is a **9** or a **1**

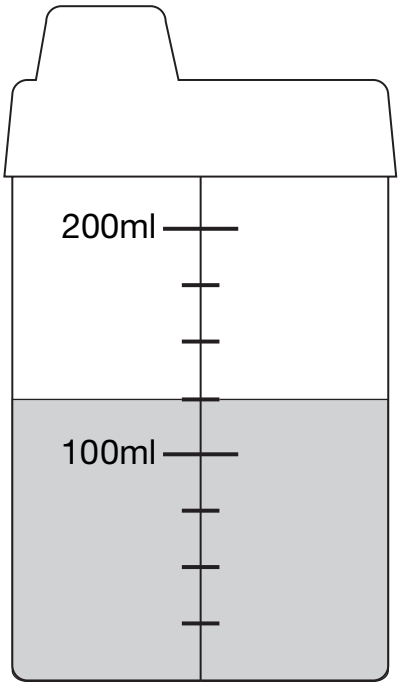
Write in the missing digits.




4

1 mark

**5** Here is a baby's drinking cup.

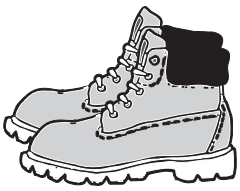



How many millilitres of water are in the cup?


5

1 mark

**6** These are the prices in a shoe shop.



boots
£45.50

sandals
£12.75

trainers
£34.99

How much **more** do the boots cost than the trainers?

£ _____ 6a

1 mark

Rosie buys a pair of trainers and a pair of sandals.

How much change does she get from **£50**?

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

£ _____ 6bi

6bii

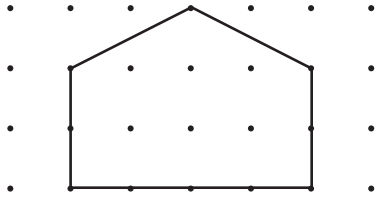
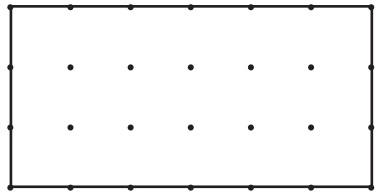
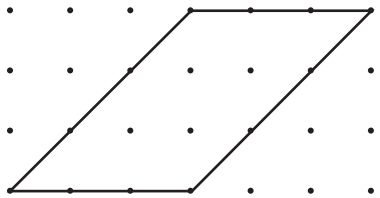
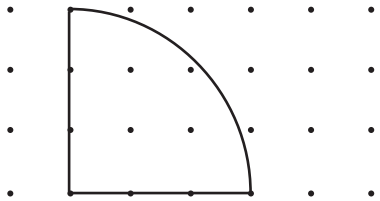
2 marks



Total out of 5 _____

**7** Put ticks (✓) and crosses (✗) on the chart to complete it correctly.

One has been done for you.

| Shape | It is a quadrilateral | It has one or more right angles |
|---|---|---|
|  | ✗ | ✓ |
|  | | |
|  | | |
|  | | |

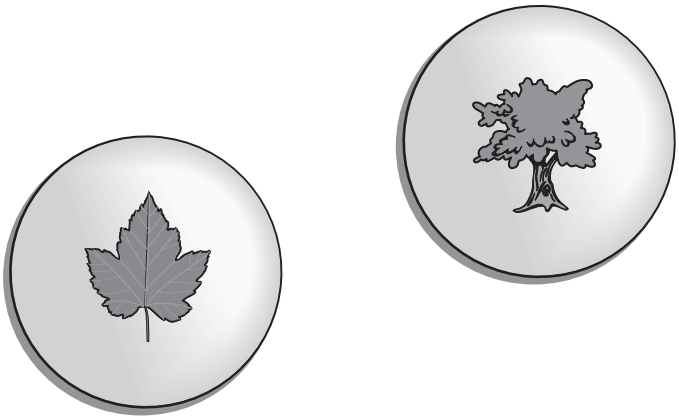
7a

1 mark

7b

1 mark

**8** Forest School sells badges for charity.



For each badge sold, **£1.20** is given to a charity.

How much does the charity get when **12** badges are sold?

£ _____ 8a

1 mark

If the charity got **£24**, how many badges were sold?

_____ 8b

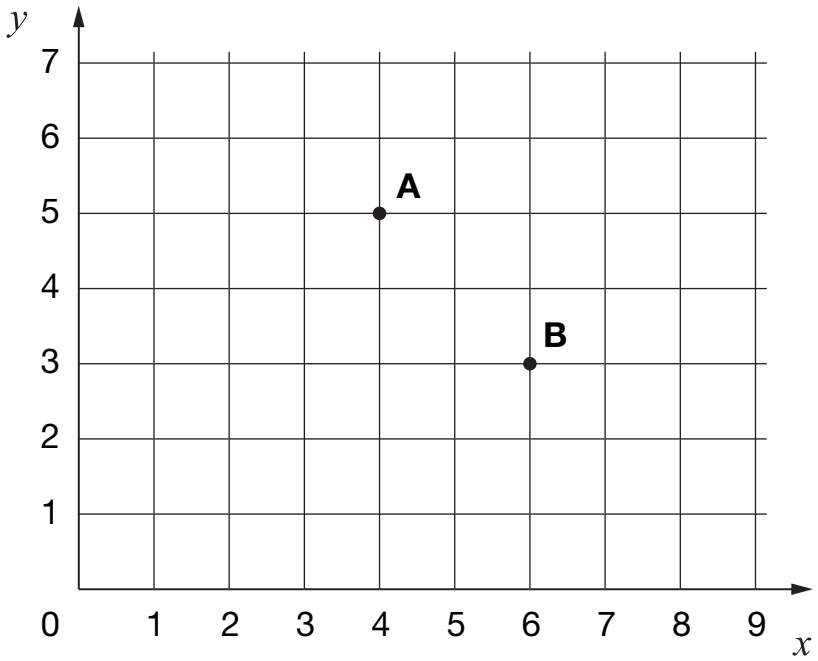
1 mark



Total out of 4 _____

**9** **A**, **B**, **C** and **D** are the vertices of a rectangle.

**A** and **B** are shown on the grid.




**D** is the point (3, 4)

Write the coordinates of point **C**.

( , )

9

1 mark

**10** Here is a number sentence.

? + 27 > 85

Circle **all** the numbers below that make the number sentence correct.

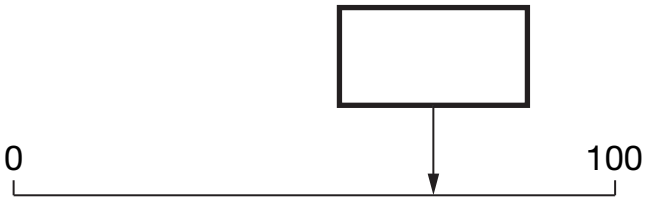
30 40 50 60 70

10

1 mark

**11** Here is a number line.

Estimate the number marked by the arrow.




11

1 mark

**12** The numbers in this sequence increase by the same amount each time.

Write in the missing numbers.

| 1 | | | 13 |
|---|---|---|---|

12

1 mark



Total out of 4 ____

**13** Here is a sorting diagram with four sections, **A**, **B**, **C** and **D**.

| | multiple of 10 | not a multiple of 10 |
|---|---|---|
| multiple of 20 | **A** | **B** |
| not a multiple of 20 | **C** | **D** |

Write a number that could go in section **C**.

13a

1 mark

Section **B** can never have any numbers in it.

Explain why.

13b

1 mark

**14** Calculate $\frac{3}{4}$ of **£15**

£

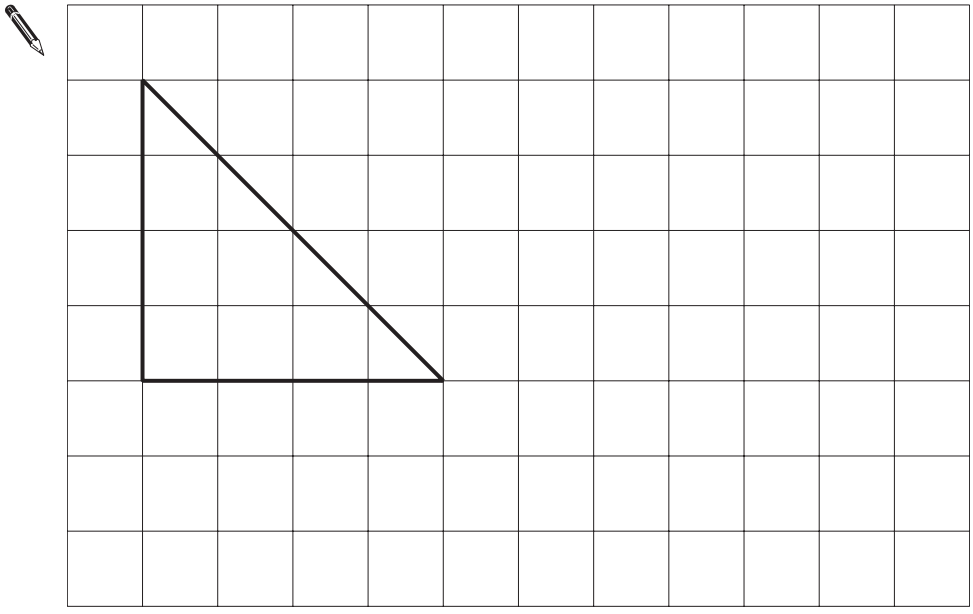
14

1 mark

**15** Here is a triangle drawn on a square grid.

Draw a **rectangle** on the grid with the **same area** as the triangle.

Use a ruler.



15

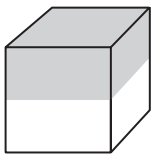
1 mark



Total out of 4

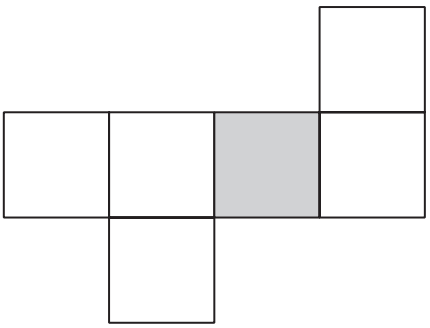
**16** Here is a cube.

The cube is shaded all the way round so that the top half is grey and the bottom half is white.



Here is the net of the cube.

Complete the shading.



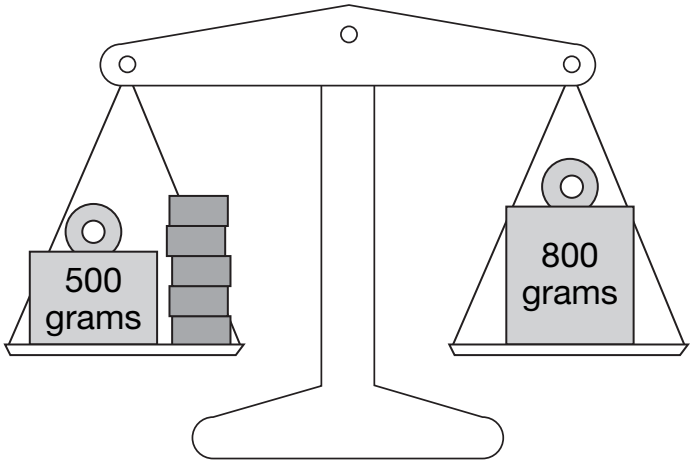
16i

16ii

2 marks

**17** Lin has five blocks which are all the same.

She balances them on the scale with two weights.




Calculate the weight of **one** block.

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

g

17i

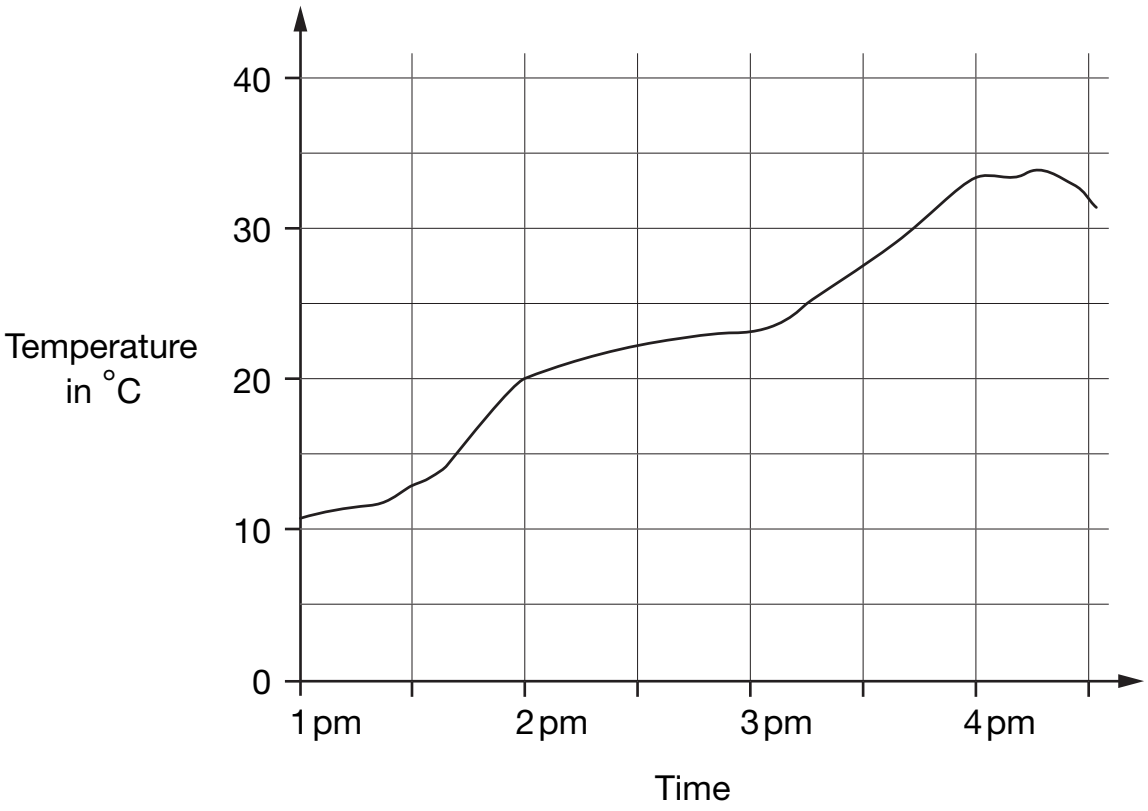
17ii

2 marks



Total out of 4

**18** This graph shows the temperature in a greenhouse.




Use the graph to find the time when the temperature was 25°C.

18a

1 mark

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

degrees

18b

1 mark

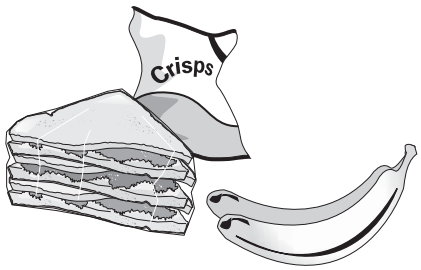
**19** David and his friends prepare a picnic.

Each person at the picnic will get:

**3** sandwiches

**2** bananas

**1** packet of crisps




The children pack **45** sandwiches.

How many **bananas** do they pack?

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

**bananas**

19i

19ii

2 marks



Total out of 4 ____

**20** Write the answer to each of these calculations rounded to the **nearest whole number**.

One has been done for you.

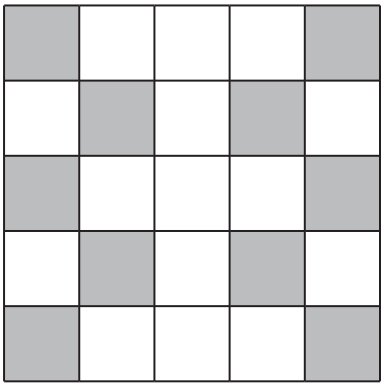
| | to the nearest whole number |
|---|---|
| 75.7 × 59 | 4466 |
| 7734 ÷ 60 | |
| 772.4 × 9.7 | |
| 20.34 × (7.9 – 5.4) | |

20i _____

20ii _____

2 marks

**21** Here is a pattern on a grid.



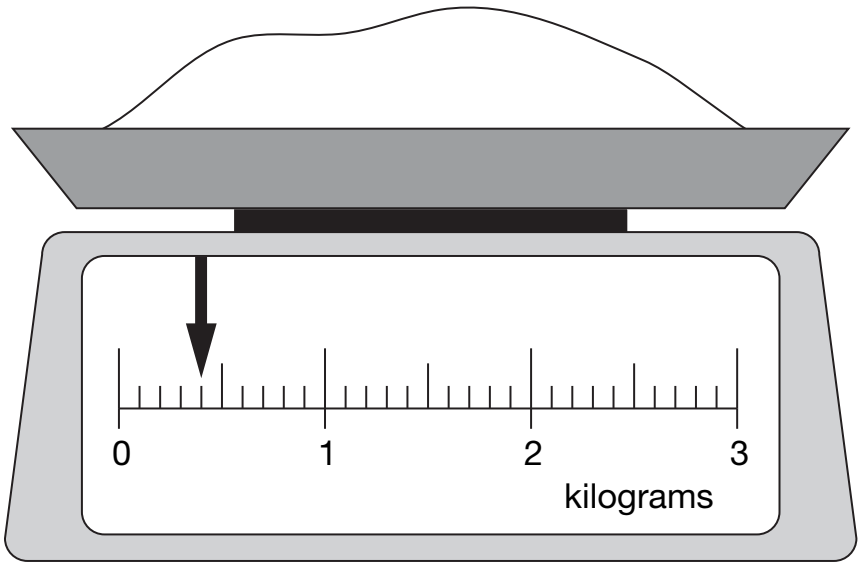
What **percentage** of the grid is shaded?

_____ %

21 _____

1 mark

**22** Here is some flour on a weighing scale.




How many **grams** of flour are on the scale?

**grams**

22a

1 mark

How much more flour must be added to the scale to make 1.6 kg?

22b

1 mark



Total out of 5 _____

**23** Circle the **two** prime numbers.

29 39 49 59 69

23

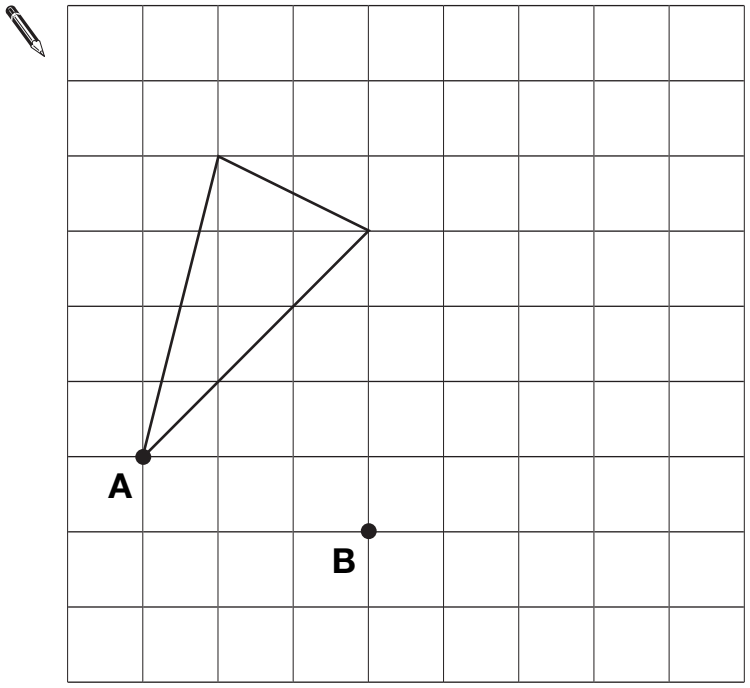
1 mark

**24** Here is a triangle on a square grid.

The triangle is translated so that point **A** moves to point **B**.

Draw the triangle in its new position.

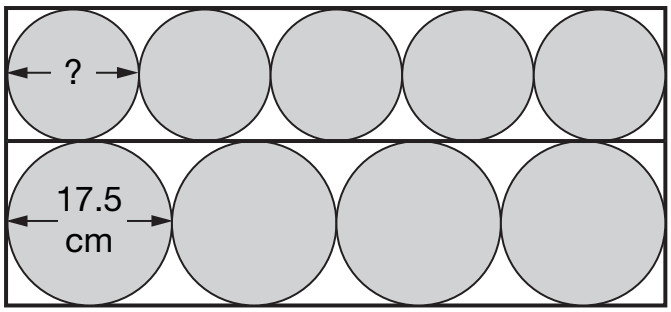
Use a ruler.




24

1 mark

**25** Four large circles and five small circles fit exactly inside this rectangle.




**Not actual size**

The **diameter** of a large circle is **17.5** centimetres.

Calculate the **diameter** of a small circle.

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

**cm**

25i

25ii

2 marks



Total out of 4

End of test

QCA, 83 Piccadilly, London W1J 8QA

***Order refs:***
QCA/06/1905 (pupil pack)
QCA/06/1900 (mark schemes pack)

270002