

# MATHEMATICS

KEY STAGE 2 2005

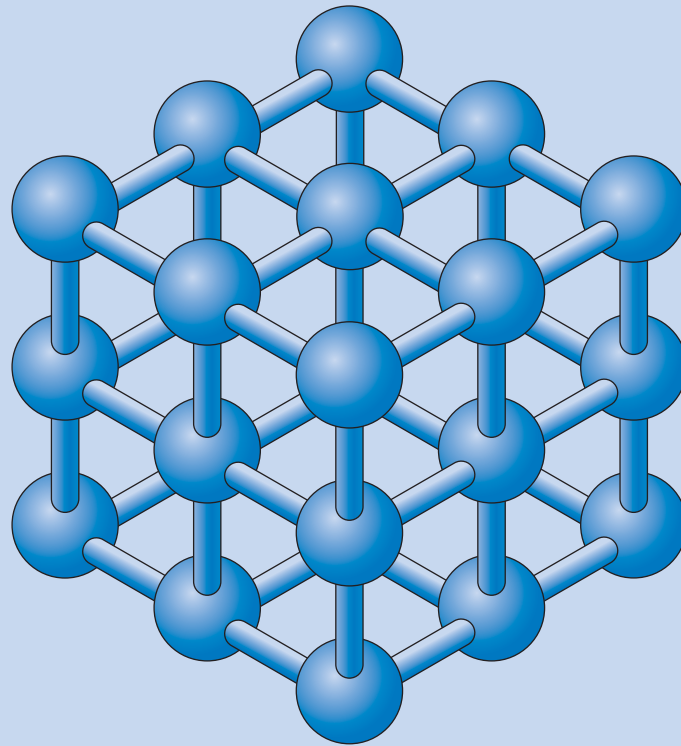
TEST B

LEVELS  
**3-5**

CALCULATOR ALLOWED

PAGE	MARKS
5	
7	
9	
11	
13	
15	
17	
19	
21	
<b>TOTAL</b>	

<b>BORDERLINE CHECK</b>	
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**First Name**

**Last Name**

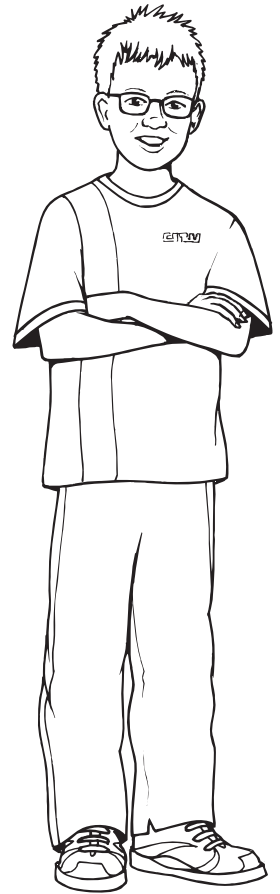
**School**



Josh



Sapna



Robbie

# 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 these prices in order from smallest to largest.

99p

£10.50

£0.75

£9

£2.05



smallest

largest

1 mark

1

2

Circle the numbers that add up to 100



64

32

16

8

4

2

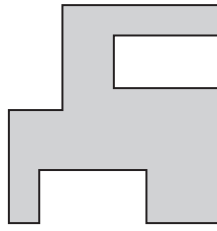
1

1 mark

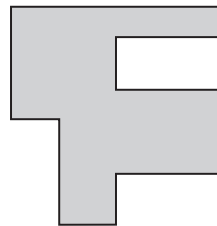
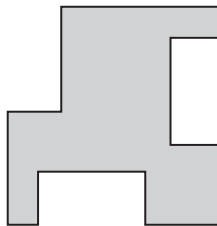
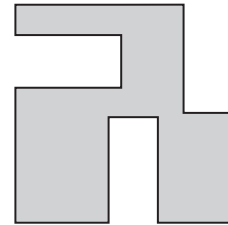
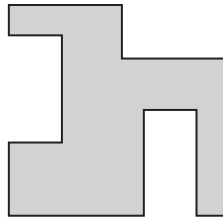
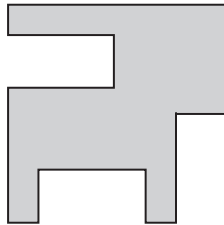
2

3

Here is a shape.



Put a tick (✓) on the shape below which is the same as the one above.



3

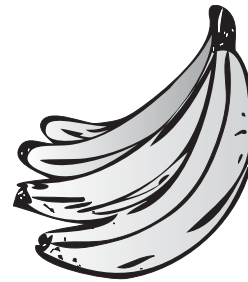
1 mark

4

These are the prices of coconuts and bananas.



coconuts  
78p each



bananas  
£1.20 for 1kg

Josh buys **one coconut** and **half a kilogram** of **bananas**.

How much does he spend altogether?

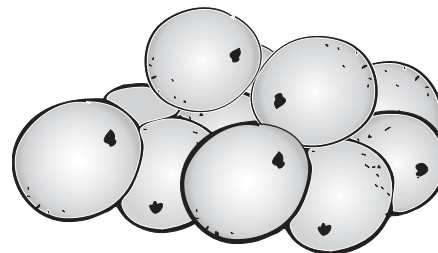
Show your **method**.  
You may get a mark.

£

4ai

4aii

2 marks



Oranges cost **25p** each.

How many oranges can Josh buy for **£1.50**?

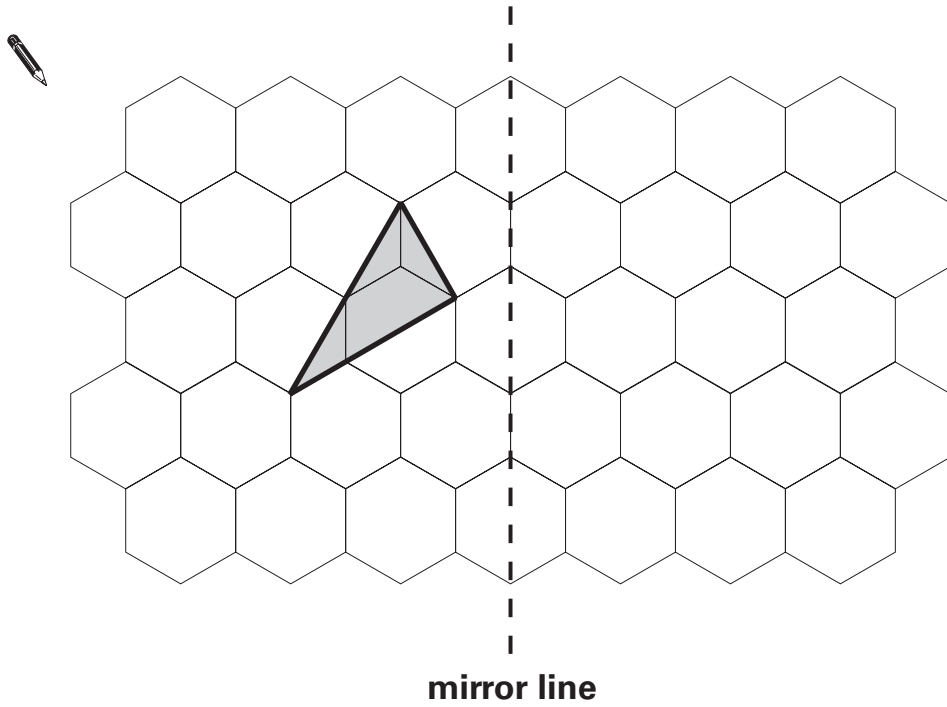
4b

1 mark

5

This grid is made of hexagons.

Draw the reflection of the shaded shape on the grid.




5  
1 mark

6

Each missing digit in these calculations is 2, 5 or 7

Write in the missing digits.

You may use each digit more than once.



$$\boxed{\phantom{0}} + \boxed{1} \boxed{8} = \boxed{\phantom{0}} \boxed{\phantom{0}}$$

6a  
1 mark

$$\boxed{\phantom{0}} \boxed{\phantom{0}} \times \boxed{3} = \boxed{\phantom{0}} \boxed{\phantom{0}}$$


6b  
1 mark

**7**

This table shows information about four solid shapes.

Complete the table.

One has been done for you.



	number of <b>flat</b> surfaces	number of <b>curved</b> surfaces
sphere	0	1
cone		
cuboid		
cylinder		

7i

7ii

2 marks

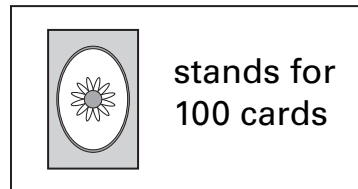


8

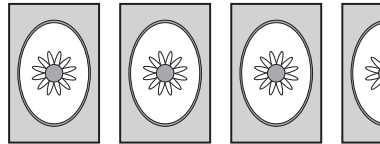
A shop sells different kinds of greeting cards.



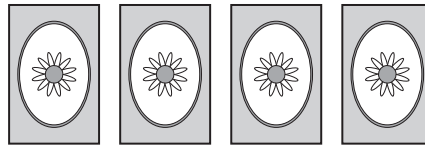
This pictogram shows how many they sold in a week.



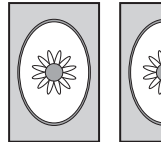
Birthday cards



Thank You cards



Get Well cards



Estimate how many Birthday cards were sold.



8a

1 mark

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



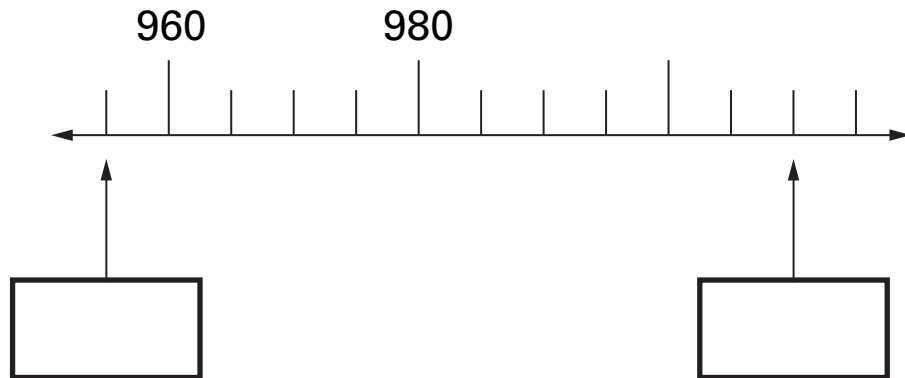
8b

1 mark

9

Here is part of a number line.

Write the two missing numbers in the boxes.



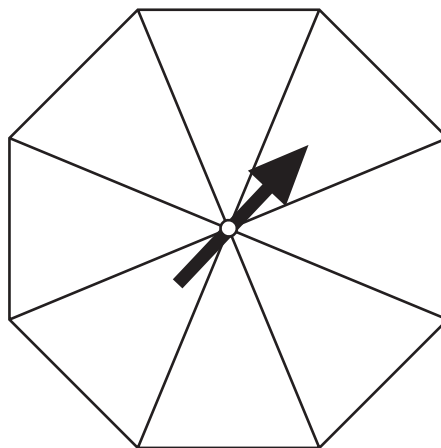
9a  
1 mark

9b  
1 mark

10

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.



10i

10ii  
2 marks

11

Josh thinks of a number.

He adds 4

He multiplies his result by 3

Then he takes away 9

His final answer is 90



What number did Josh start with?



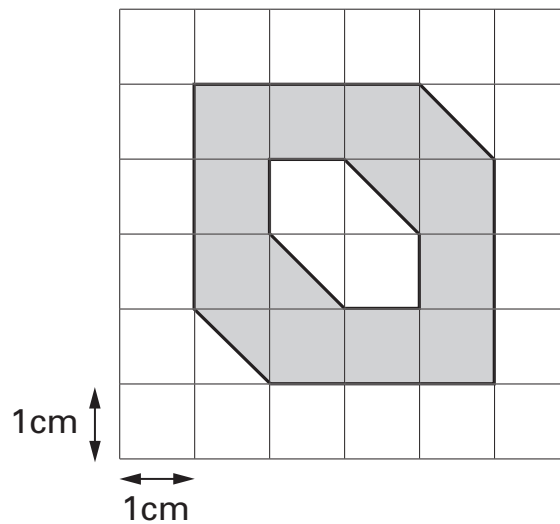
11

1 mark

12

Here is a 1cm square grid.

Some of the grid is shaded.



What is the **area** that is shaded?



12

1 mark

13



Sapna and Robbie have some biscuits.

Altogether they have **14** biscuits.

Sapna has **2 more** biscuits than Robbie.

How many biscuits do Sapna and Robbie each have?



Sapna

Robbie

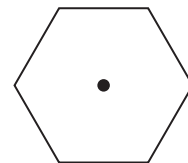
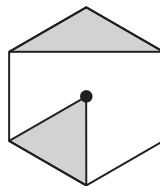
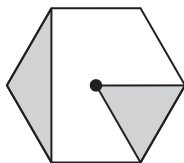
13

1 mark

14

This pattern is made by turning a shape clockwise through  $90^\circ$  each time.

Draw the two missing triangles on the last shape.

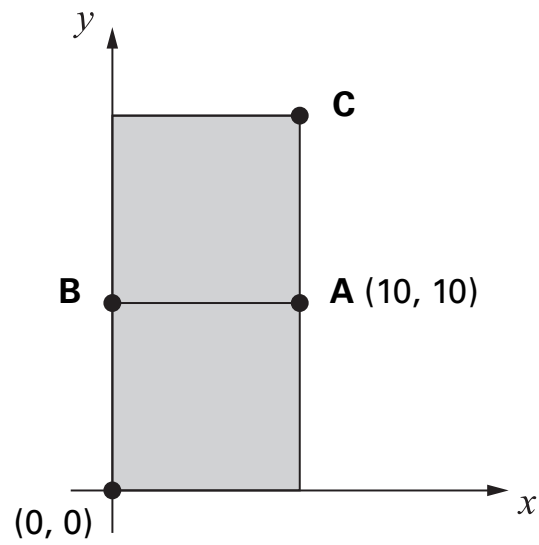


14

1 mark

**15**

The diagram shows two identical squares.



**A** is the point  $(10, 10)$

What are the coordinates of **B** and **C**?



**B** is

**C** is

15a

1 mark

15b

1 mark

16

Write all the factors of 30 which are **also** factors of 20



.....

16i

16ii

2 marks

17

17 multiplied by itself gives a **3-digit** answer.

$$\begin{array}{|c|c|} \hline 1 & 7 \\ \hline \end{array} \times \begin{array}{|c|c|} \hline 1 & 7 \\ \hline \end{array} = \begin{array}{|c|c|c|} \hline 2 & 8 & 9 \\ \hline \end{array}$$

What is the **smallest** 2-digit number that can be multiplied by itself to give a **4-digit** answer?



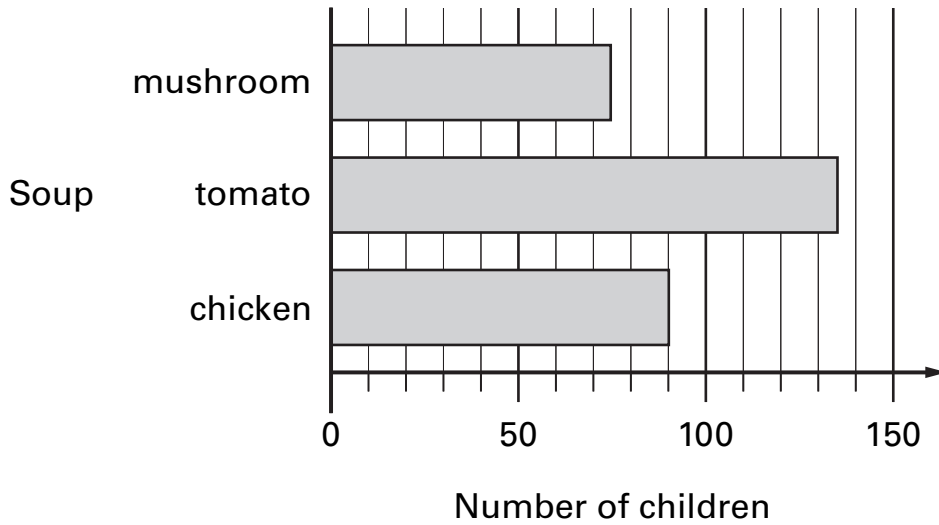
$$\begin{array}{|c|c|} \hline & \\ \hline \end{array} \times \begin{array}{|c|c|} \hline & \\ \hline \end{array} = \begin{array}{|c|c|c|c|} \hline & & & \\ \hline \end{array}$$

17

1 mark

18

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?



18a

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.



.....

.....

.....

18b

1 mark





Sapna makes a fruit salad using bananas, oranges and apples.

For every one banana, she uses 2 oranges and 3 apples.

Sapna uses 24 fruits.

How many **oranges** does she use?

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

oranges

19i

19ii

2 marks



20

7.4

8.1

9.4

10

Which two of these numbers, when multiplied together, have the answer closest to 70?



and

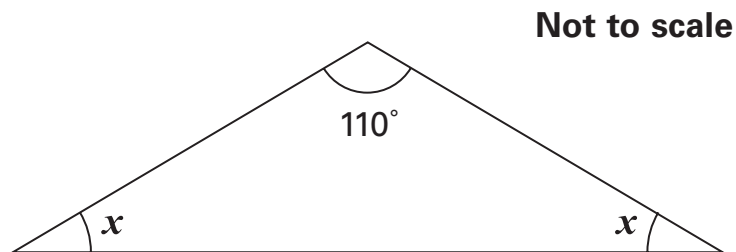


20

1 mark

21

Here is an isosceles triangle.



Calculate the size of angle  $x$ .

Do **not** use a protractor (angle measurer).



$x =$



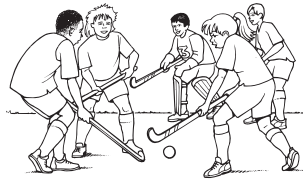
21

1 mark

22

On Monday all the children at Grange School each play one sport.

They choose either hockey or rounders.



There are **103** 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			

22i

22ii

2 marks

23

Write in the missing numbers.



30% of 60 is

30% of

is 60

23a

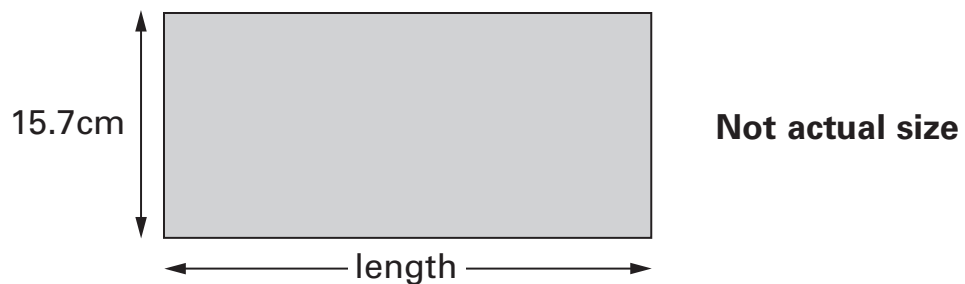
1 mark

23b

1 mark

24

Here is a rectangle with a width of 15.7 centimetres.



The **perimeter** of this rectangle is 85 centimetres.

Calculate the length of the rectangle.



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

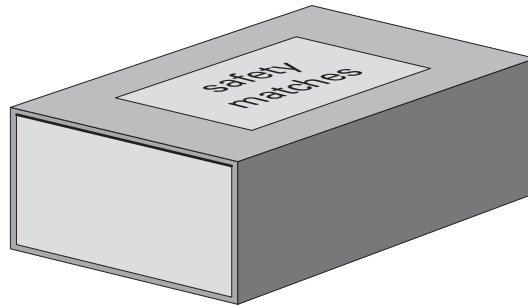
  

cm

24i

24ii

2 marks



A box contains 220 matches and weighs 45 grams.

The empty box weighs 12 grams.

Calculate the weight of **one** match.

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





25i

25ii

2 marks

End of test





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QCA key stage 2 team, 83 Piccadilly, London W1J 8QA

**Order refs:**

QCA/05/1365 (pupil pack)

QCA/05/1360 (mark schemes pack)