Ma

KEY STAGE 2

LEVELS 3–5

2010

Mathematics test

Test A

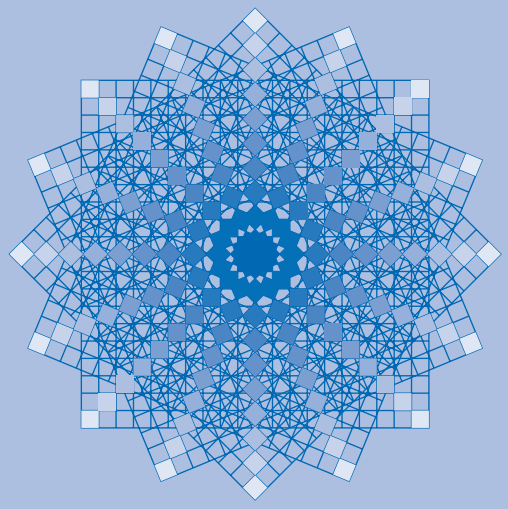
Calculator **not** allowed

First name _____

Last name _____

School _____

DCSF no. _____



For marker's use only

Page	Marks
5	
7	
9	
11	
13	
15	
17	
19	
21	
TOTAL	

These three children appear in some of the questions in this test.

Sarah

Amy

Liam

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.

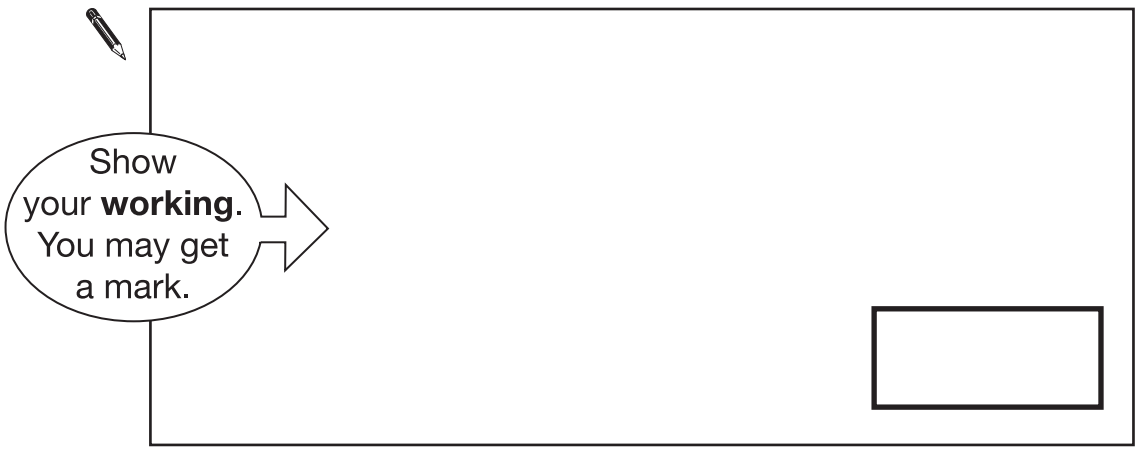
If you finish before the end, **go back and check your work**.

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 prices in order, starting with the smallest.

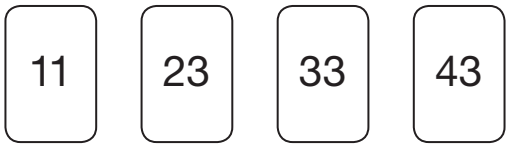
72p £2.70 £0.27 £7.20 £2.07

smallest

1

1 mark

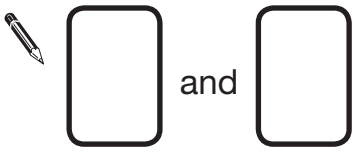
2 Amy chooses two of these cards.



She adds the numbers on her two cards together.
She rounds the result to the nearest 10

Her answer is 60

Which two cards did Amy choose?



2

1 mark

3 This table shows six different types of cat and where they are found in the world.

	Europe and Middle East	Asia	Africa
Jungle cat	✓	✓	✗
Wildcat	✓	✓	✓
Tiger	✗	✓	✗
Lion	✗	✓	✓
Cheetah	✗	✗	✓
Leopard	✓	✓	✓

Use this table to answer these questions.

Which type of cat is found **only** in Africa?

_____ 3a

1 mark

Which types of cat are found in all three parts of the world?

_____ 3b

1 mark

Total out of 4 _____

4 Liam, Sarah and Amy buy lunch at a salad bar.

salad bar			
Salads		Desserts	
cheese	£1.20	banana	25p
egg	90p	apple pie	50p
tuna	£1.60	yogurt	35p

Liam has £2.50 to spend.

He buys a tuna salad and an apple pie.

How much money has he got left?

p

4a

1 mark

Sarah buys a cheese salad and a yogurt.

Amy buys an egg salad.

How much **more** does Sarah pay than Amy?

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

4bi

4bii

2 marks

5 Write these times in order, starting with the shortest.

24 days

10 weeks

1 month

48 hours

shortest

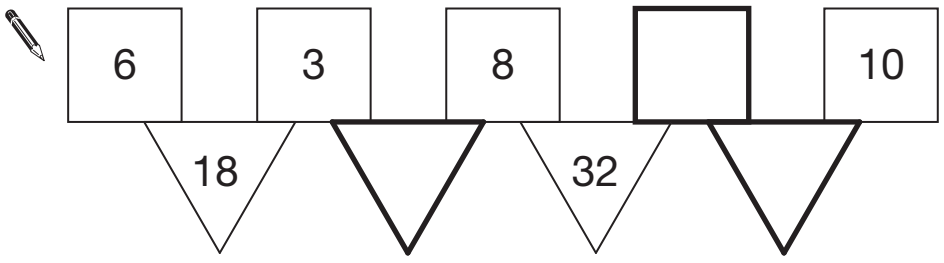
5

1 mark

6 In this diagram the rule is

'to make the number in a triangle,
multiply the numbers in the two squares above it'.

Write in the three missing numbers.



6i

6ii

2 marks

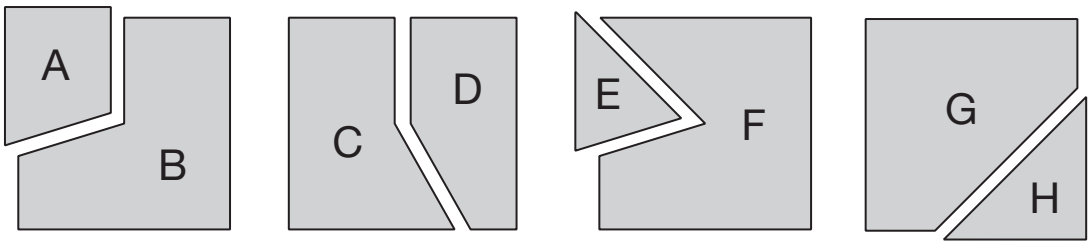
Total out of 6

7 Calculate **336 – 192**

7

1 mark

8 Each of these four squares has been cut into two new shapes.



Write the letters of all the new shapes that are **hexagons**.

8a

1 mark

Write the letters of all the new shapes that are **pentagons**.

8b

1 mark

9 A book has five stories in it.

This is the contents page.

Contents

	page
Rocket Ship	5
Night Journey	17
Secret Palace	25
Jack	41
Deep Water	59

Deep Water finishes on page 68

Which is the longest story?

_____ 9

1 mark

Total out of 4 _____

10 Here is a Carroll diagram for sorting numbers.

Write these **five** numbers in the correct places on the diagram.

25 247 7002 49 990

	odd	**not** odd
a 3-digit number		
not a 3-digit number		

10i

10ii

2 marks

11 Calculate **634 × 6**

11

1 mark

12

Big Wheel £2.50 each ride	Rollercoaster £1.50 each ride

Liam spends £14 altogether on the Big Wheel and the Rollercoaster.

He goes on the Big Wheel twice.

How many times does he go on the Rollercoaster?

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

12i

12ii

2 marks

Total out of 5 _____

13 Liam has two different sizes of rectangle.

He makes this pattern with them.

Not actual size

Calculate the lengths of **A** and **B**.

A = ☐ **cm** 13a

1 mark

B = ☐ **cm** 13b

1 mark

14 Here are five number cards.

$\frac{1}{2}$ $1\frac{1}{2}$ 2 $2\frac{1}{2}$ $3\frac{1}{2}$

Use **three** of the number cards to make this calculation correct.

$$(\ \square\ +\ \square\ )\ \times\ \square\ =\ 10$$

14

1 mark

15 An iced cake costs 10p more than a plain cake.

Sarah bought two of each cake.

They cost £1 altogether.

What is the cost of an **iced** cake?

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

p

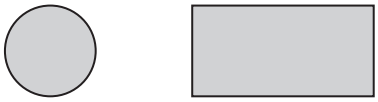
15i

15ii

2 marks

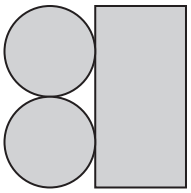
Total out of 5

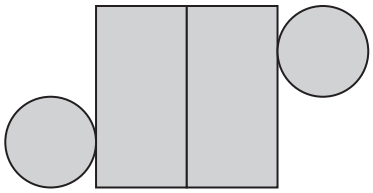
16 Amy has some circular tiles and some rectangular tiles.

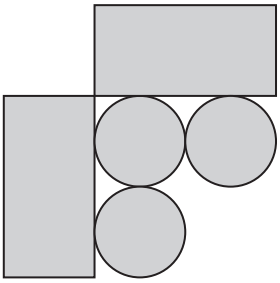


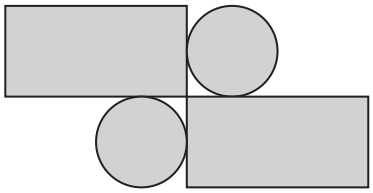
She makes these patterns with them.

For each pattern, put a tick (✓) if it has a line of symmetry.
Put a cross (✗) if it does not.









16i _____

16ii _____

2 marks

17 Three **different** numbers add up to 40

The numbers are all even.

Each number is less than 20

Write what the three **different** numbers could be.

17

1 mark

18 Liam makes a sequence of numbers starting with 300

He subtracts 125 each time.

Write the next two numbers in Liam's sequence.

18a

1 mark

18b

1 mark

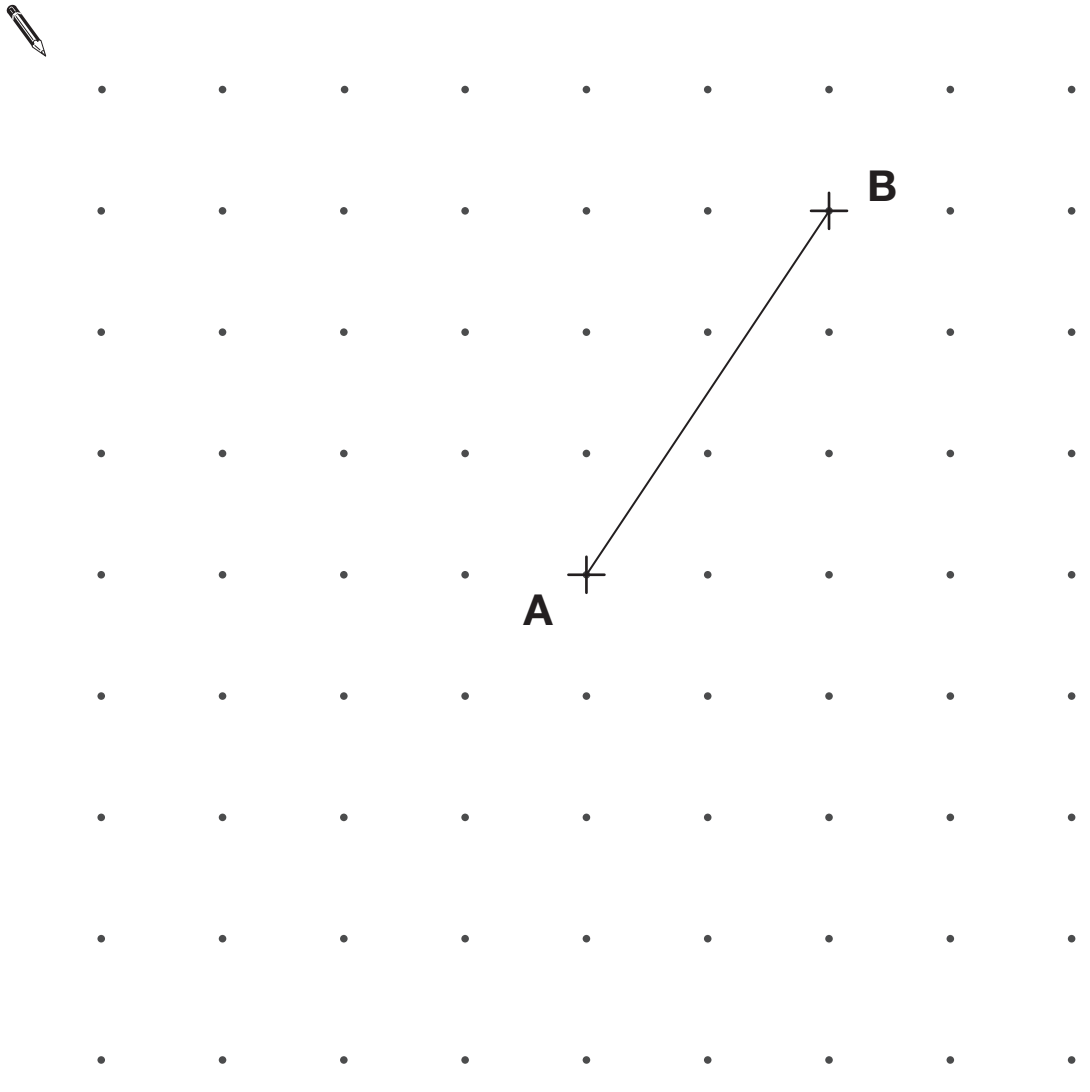
Total out of 5 _____

19 Here is a grid of dots.

Point **A** and point **B** are joined by a straight line.

Draw a line to join point **A** to another dot on the grid so that the two lines make a right angle.

Use a ruler.



19

1 mark

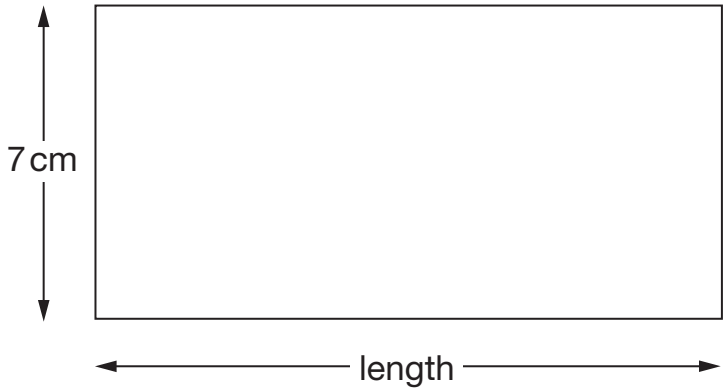
20 Circle the fraction that is greater than $\frac{1}{2}$ but less than $\frac{3}{4}$

$\frac{7}{8}$ $\frac{2}{5}$ $\frac{1}{3}$ $\frac{5}{8}$ $\frac{3}{6}$

20

1 mark

21



Not actual size

The perimeter of this rectangle is 50 centimetres.

Calculate the length of the rectangle.

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

cm

21i

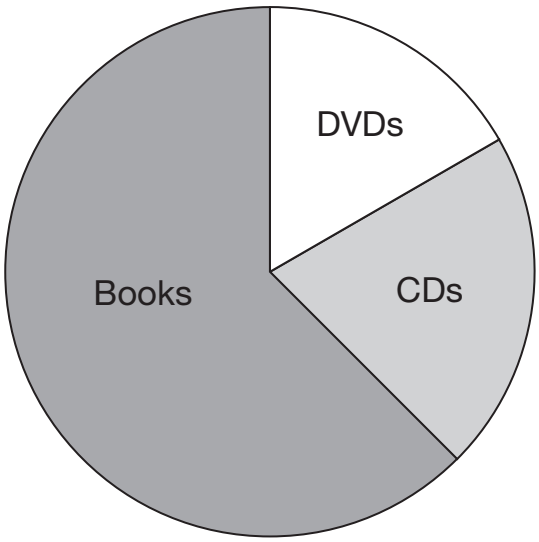
21ii

2 marks

Total out of 4

22 A shop sells books, CDs and DVDs.

This pie chart shows the sales of each in one week.



Estimate the **fraction** of the total sales that were DVDs.

22a

1 mark

In this week, 200 **CDs** were sold.

Estimate how many books were sold.

22b

1 mark

23 Write the missing number to make this calculation correct.

$11 \times \square = 1111$

23

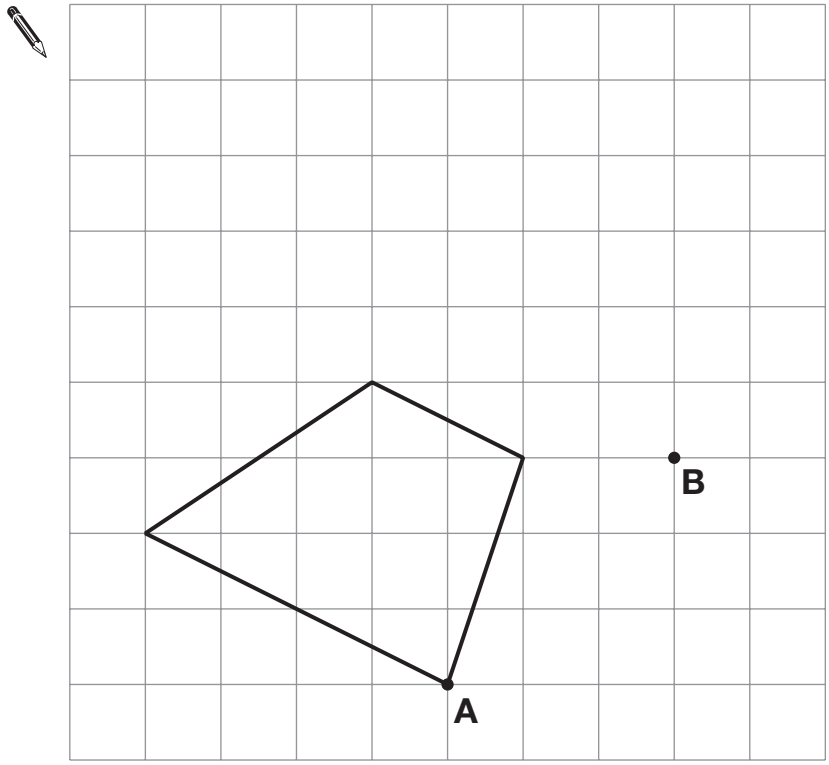
1 mark

24 Here is a quadrilateral on a square grid.

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

Draw the quadrilateral in its new position.

Use a ruler.

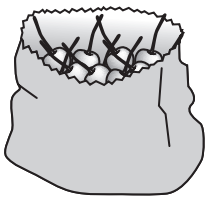


24

1 mark

Total out of 4 ____

25 Sarah had a bag of cherries.



She ate 5 cherries, then gave half of what she had left to Liam.

Liam ate 5 of his cherries, then gave half of what he had left to Amy.

Amy got 2 cherries.

How many cherries did Sarah have in her bag at the start?

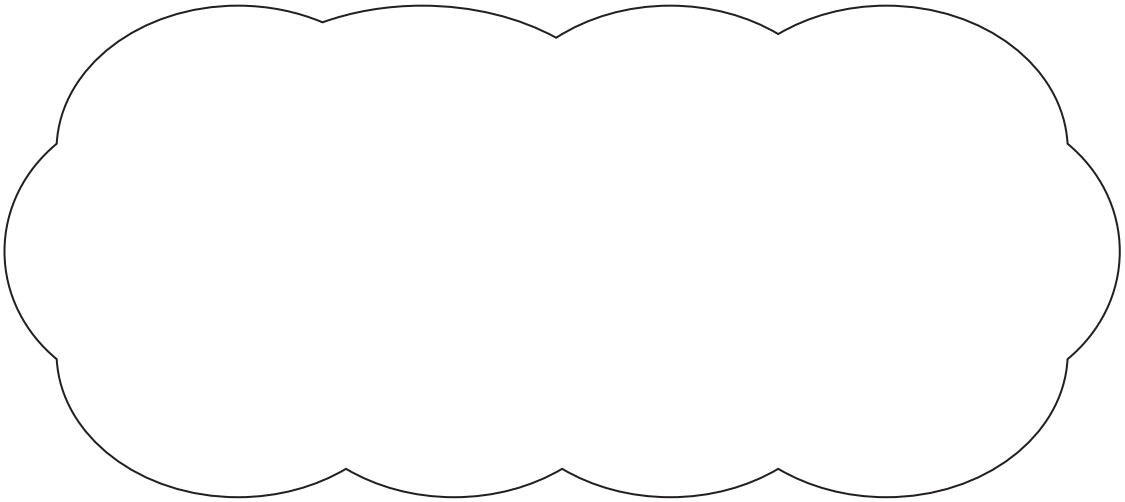
Show your **working**. You may get a mark.

25i

25ii

2 marks

26 If you know **40%** of a number, explain how you could work out the original number.



26

1 mark

Total out of 3 _____

End of test

QCDA/10/4482 (Pupil pack)
QCDA/10/4477 (Mark schemes pack)