

Ma

KEY STAGE

2

LEVELS

3–5

# Mathematics tests

## Paper 1

Calculator **not** allowed

First name						
Middle name						
Last name						
Date of birth	Day		Month		Year	
School name						
DfE number						

For marker's use only

Page	Marks
5	
7	
9	
11	
13	
15	
17	
19	
21	
23	
<b>Total marks</b>	

2014

[BLANK PAGE]

Please do not write on this page.

# 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.**

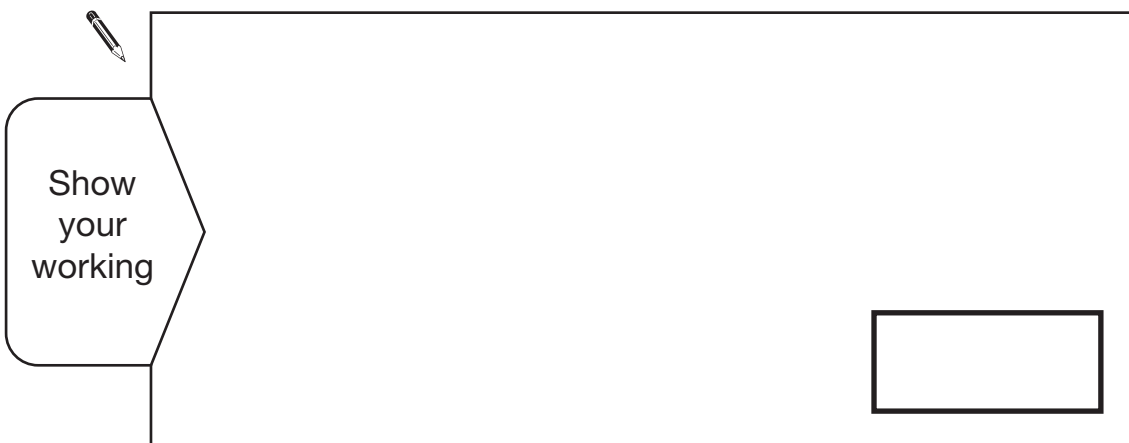
**Follow the instructions for each question carefully.**



This shows where you need to put the answer.

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

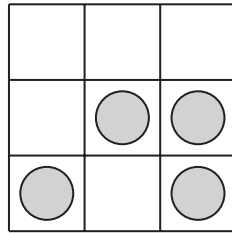
**Some questions have an answer box like this:**



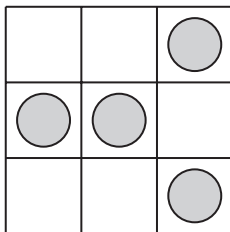
For these questions you may get a mark for showing your working.

1

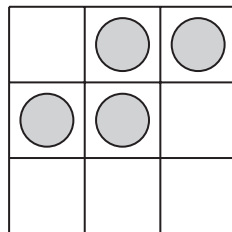
This grid has a pattern of four circles on it.



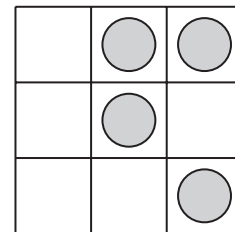
Write the letter of the grid below that has the same pattern as the grid above.



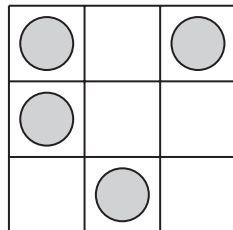
**A**



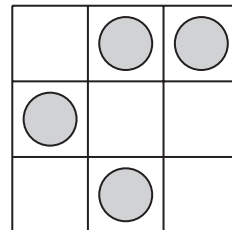
**B**



**C**



**D**



**E**



1

1 mark

2

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

Write the two missing numbers.



610

650

690

2a

1 mark

2b

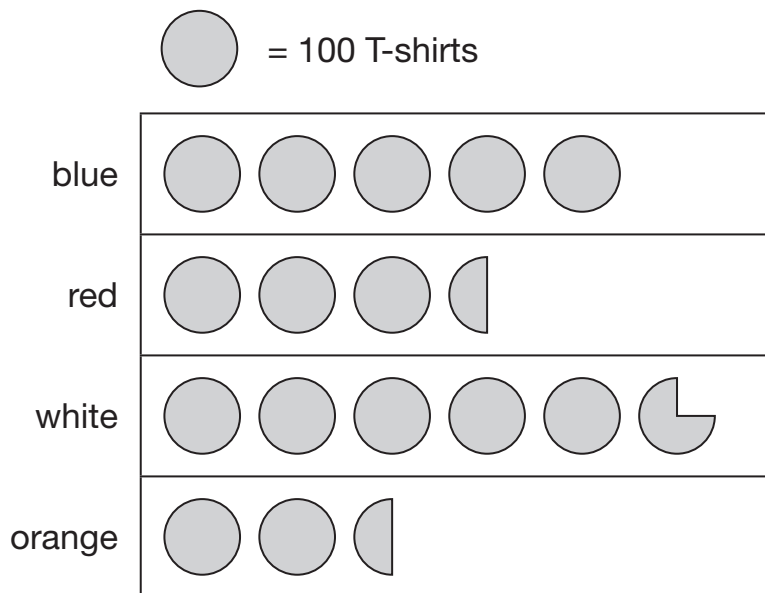
1 mark

Total out of 3 \_\_\_\_\_

3

A shop sells T-shirts.

This chart shows how many T-shirts were sold in a month.



Write the colours of the T-shirts that sold **more than 400** in the month.



\_\_\_\_\_

3a

1 mark

How many red T-shirts and orange T-shirts were sold **altogether**?



3b

1 mark

How many **more** white than blue T-shirts were sold?



3c

1 mark

4

Seb has to see the doctor at 10:05 am.

He gets to the doctor's surgery at 9:52 am.

How many minutes **early** is he?



minutes

4a

1 mark

He leaves the doctor's surgery at 10:25 am.

He gets to school 45 minutes later.

What time does he arrive at school?



am

4b

1 mark

Total out of 5 \_\_\_\_\_

5

Write the **three** missing numbers in this multiplication grid.



×	8	5	
4		20	28
5	40		35
3	24	15	21

5i

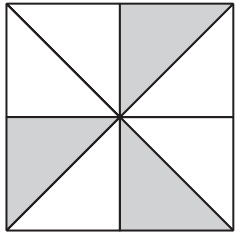
5ii

2 marks

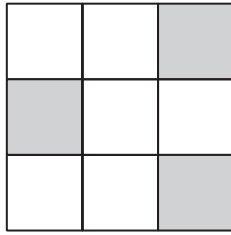


6

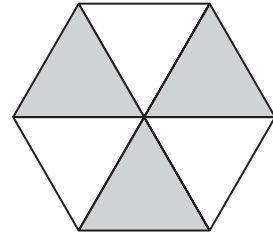
Each of these diagrams is divided into equal parts.  
Some of the parts are shaded.



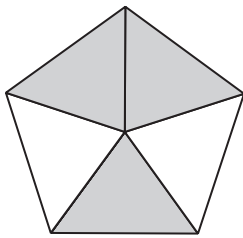
A



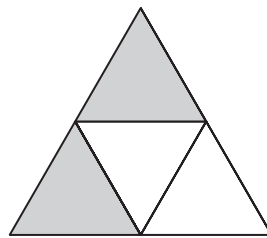
B



C



D



E

Write the letters of all the diagrams that have exactly  $\frac{1}{2}$  shaded.



\_\_\_\_\_

6a

1 mark

Which of the diagrams has exactly  $\frac{1}{3}$  shaded?



\_\_\_\_\_

6b

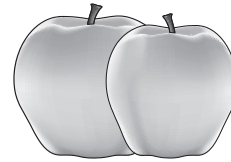
1 mark

Total out of 4 \_\_\_\_\_

7

Liam buys **two** apples.

He pays with a £1 coin and gets 64p change.



How much does **one** apple cost?

Show  
your  
working



p

7i

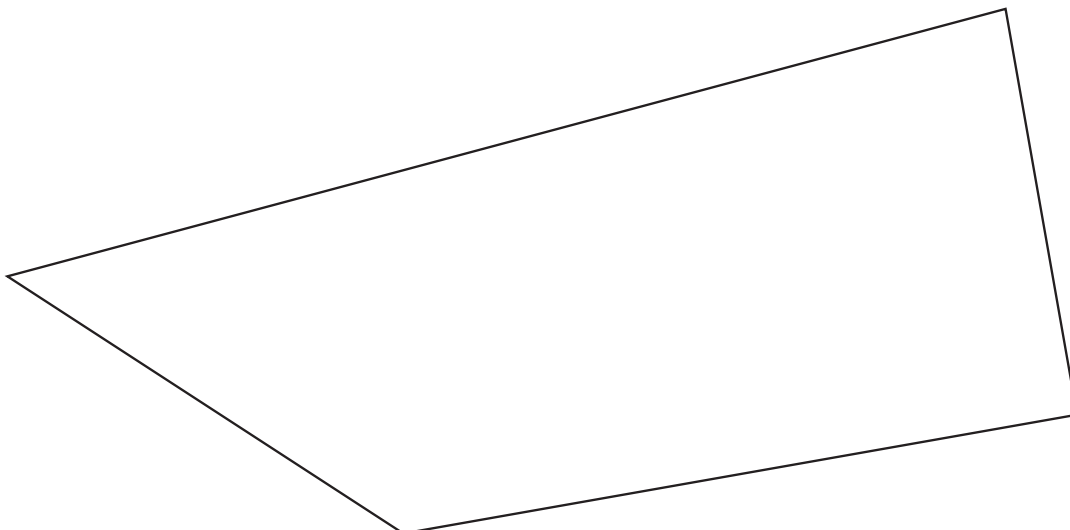
7ii

2 marks

8

In this shape, one of the angles is **obtuse**.

Tick (✓) the obtuse angle.



8

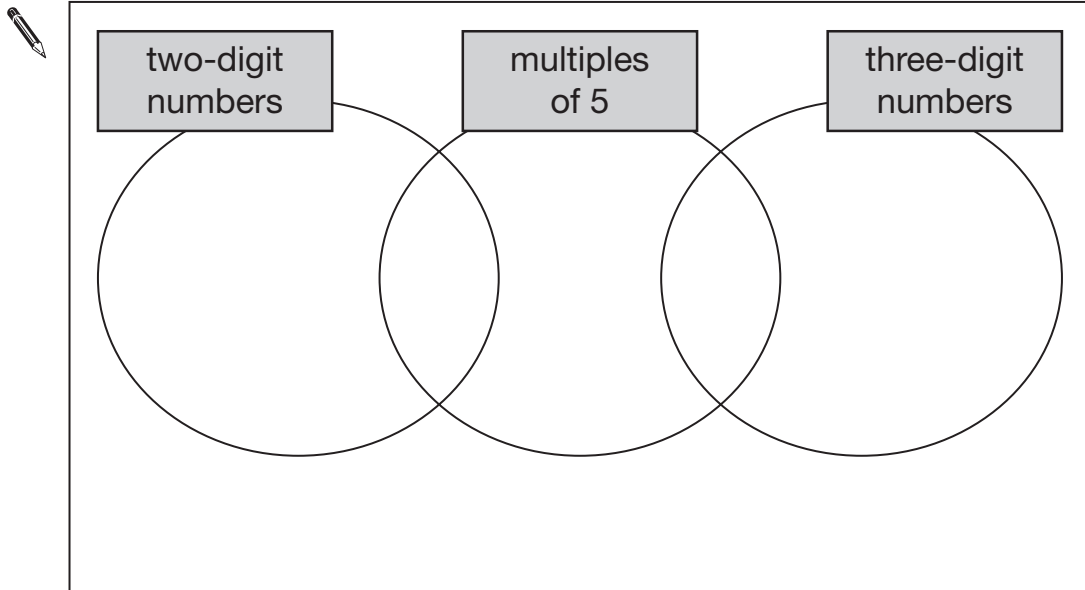
1 mark

9

Here is a diagram for sorting numbers.

Write **each** number in its correct place on the diagram.

2      20      201      2000



9i

9ii

2 marks

Total out of 5 \_\_\_\_\_

**10**

Write the missing numbers to make these calculations correct.


$$200 \times \boxed{\phantom{000}} - 200 = 200$$

10a

---

1 mark

$$(100 - \boxed{\phantom{000}}) \times 100 = 100$$

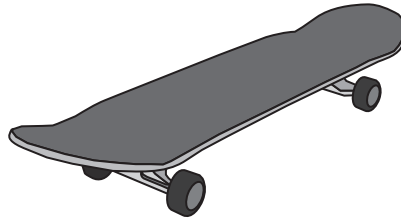
10b

---

1 mark

**11**

Seb saved up for a new skateboard that cost £40



The table shows how much money he saved each week.

Week number	1	2	3	4	5	6	7	8	9	10
Amount saved	£5	£4	£2	£4	£3	£4	£6	£4	£3	£5

In which week did Seb reach **half** the amount he needed for the skateboard?




11a

1 mark

If Seb had saved an extra £1 each week, in which week would he have reached his target of £40?




11b

1 mark

Total out of 4 \_\_\_\_\_

12

This weather chart shows the highest and lowest temperatures in a town on five days in March.

	Temperature °C	
	highest	lowest
Monday	+7	0
Tuesday	+7	-2
Wednesday	+8	-2
Thursday	+9	+1
Friday	+4	-5

Which day has the greatest difference between the highest and the lowest temperatures?



\_\_\_\_\_

12a

1 mark

What is the difference between the lowest temperatures on Thursday and Friday?



**degrees**

12b

1 mark

13

Chen and Megan each buy a sandwich.

Chen gets 5p change from £2

Megan gets £2.25 change from £5

How much **more** does Megan pay than Chen?



Show  
your  
working

13i

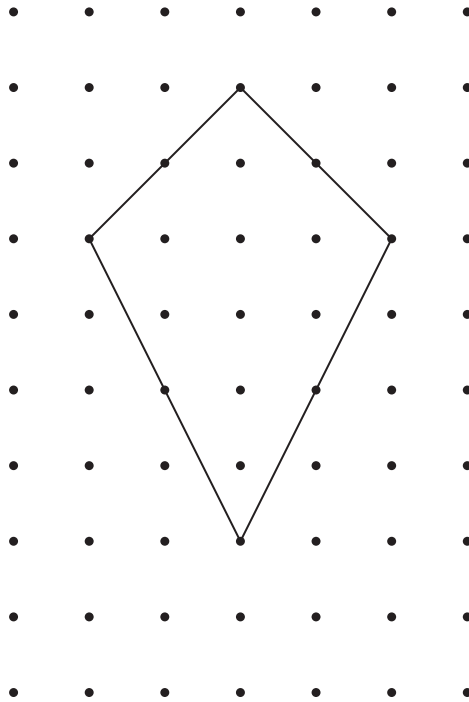
13ii

2 marks

Total out of 4 \_\_\_\_\_

14

Here is a shape on a grid.



For each statement, put a tick (✓) if it is true.  
Put a cross (✗) if it is not true.



The shape is a quadrilateral.

The shape has 2 lines of symmetry.

The shape is a parallelogram.

The shape has one right angle.

14i

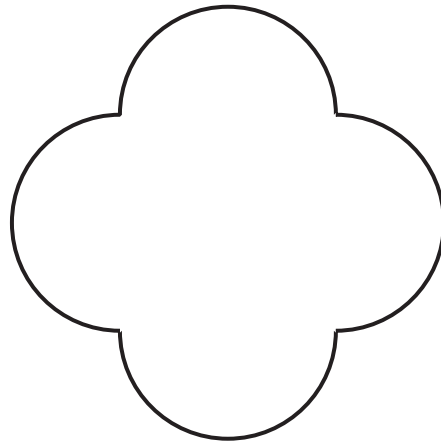
14ii

2 marks



15

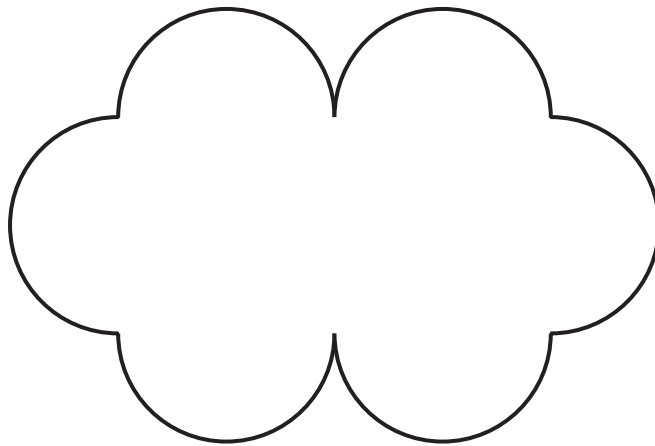
This shape is made out of four identical curves.



Not  
actual  
size

The perimeter of the shape is 28 centimetres.

A new shape is made out of curves of the same size.



What is the perimeter of the new shape?



Show  
your  
working

cm

15i

15ii

2 marks

Total out of 4 \_\_\_\_\_

16

Calculate  $465 \times 52$



Show  
your  
working

16i

16ii

2 marks

17

Write these numbers in order, starting with the smallest.

8.12

1.8

8.118

8.2

1.28



smallest

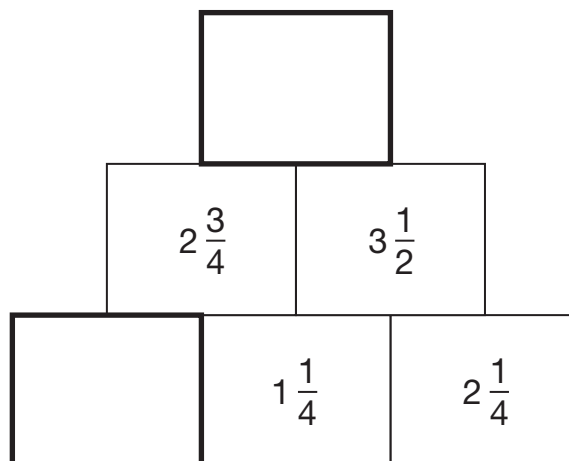
17

1 mark

18

In this diagram, the number in each box is the **sum** of the two numbers below it.

Write the missing numbers.



18a

1 mark

18b

1 mark

Total out of 5 \_\_\_\_\_

19

Liam did a survey of 55 people to see how many were left-handed.

Liam says,

***'The results show that exactly 10% of the people in the survey are left-handed.'***

Explain why Liam cannot be correct.

A large, empty, cloud-shaped box with a scalloped border, intended for the student to write their explanation.

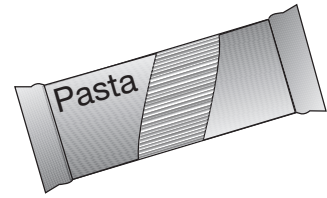
19

1 mark

20

Chen is cooking some pasta.

The recipe says he needs 350 grams of pasta for 4 people.



How many **kilograms** of pasta does he need for **12 people**?



Show  
your  
working

kg

20i

20ii

2 marks

Total out of 3 \_\_\_\_\_

21

Chen is thinking of three numbers.

He says,

**'The range is 5**

**The mode is 2'**

What are his three numbers?



21

1 mark

22

$n$  stands for a whole number.

$2n$  is greater than 30

$5n$  is less than 100

Write **all** the numbers that  $n$  stands for.

22i



---

22ii

2 marks

[END OF TEST]

Please do not write on this page.

Total out of 3 \_\_\_\_\_

2014 key stage 2 levels 3–5 mathematics: paper 1 – calculator not allowed  
Print version product code: STA/14/7037/p ISBN: 978-1-78315-158-5  
Electronic PDF version product code: STA/14/7037/e ISBN: 978-1-78315-185-1

**For more copies**

Additional printed copies of this booklet are not available. It can be downloaded from [www.gov.uk/government/publications](http://www.gov.uk/government/publications).

© Crown copyright and Crown information 2014

**Re-use of Crown copyright and Crown information in test materials**

Subject to the exceptions listed below, the test materials on this website are Crown copyright or Crown information and you may re-use them (not including logos) free of charge in any format or medium in accordance with the terms of the Open Government Licence v2.0 which can be found on the National Archive website and accessed via the following link: [www.nationalarchives.gov.uk/doc/open-government-licence/version/2](http://www.nationalarchives.gov.uk/doc/open-government-licence/version/2).

**Exceptions - third party copyright content in test materials**

You must obtain permission from the relevant copyright owners, as listed in the '2014 key stage 2 test materials copyright report', for re-use of any third party copyright content which we have identified in the test materials, as listed below. Alternatively you should remove the unlicensed third party copyright content and/or replace it with appropriately licensed material.

**Third party content**

These materials contain no third party copyright content.

If you have any queries regarding these test materials contact the national curriculum assessments helpline on 0300 303 3013 or email [assessments@education.gov.uk](mailto:assessments@education.gov.uk).