

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	
Total marks	

2014

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# 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.

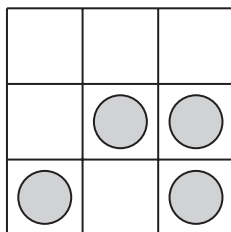
**Some questions have an answer box like this:**

A diagram showing a large rectangular area for an answer. To the left of this area is a smaller, rounded rectangular box with a pointed right side. Inside this smaller box, the text "Show your working" is written. A small pencil icon is positioned above the top-left corner of the large rectangular area. In the bottom-right corner of the large rectangular area, there is a smaller, empty rectangular box.

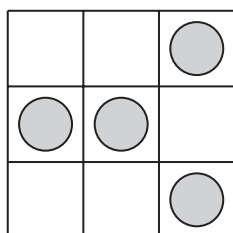
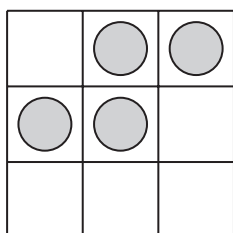
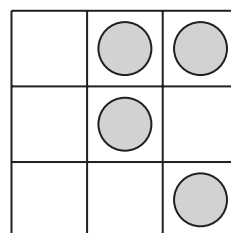
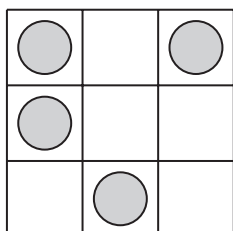
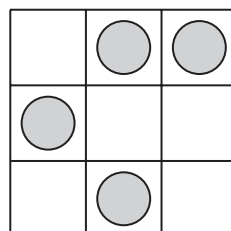
For these questions you may get a mark for showing your working.

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

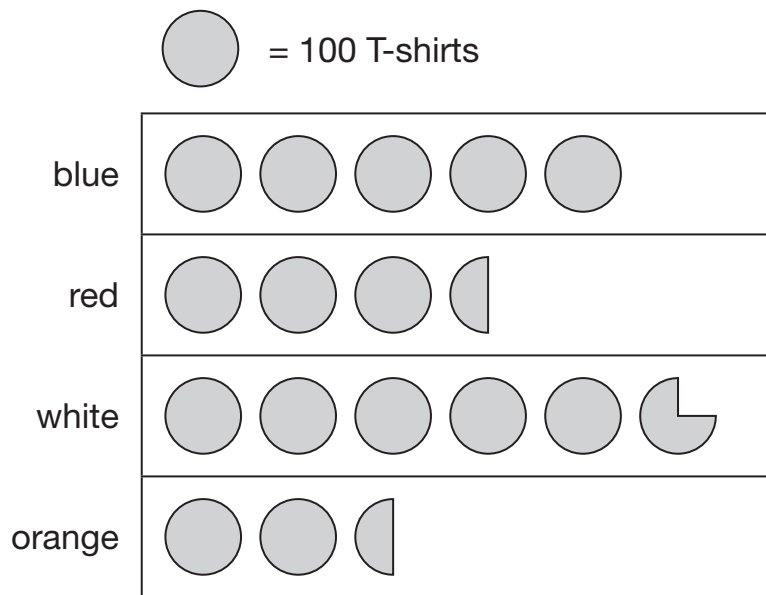
1 mark

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

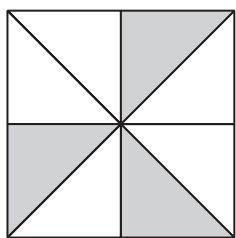
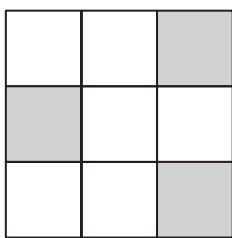
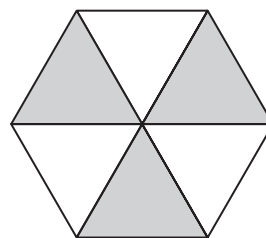
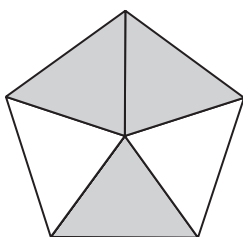
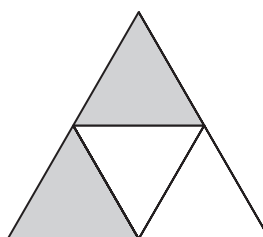
5ii

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

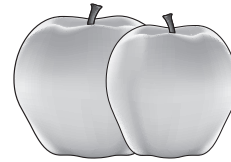
1 mark

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

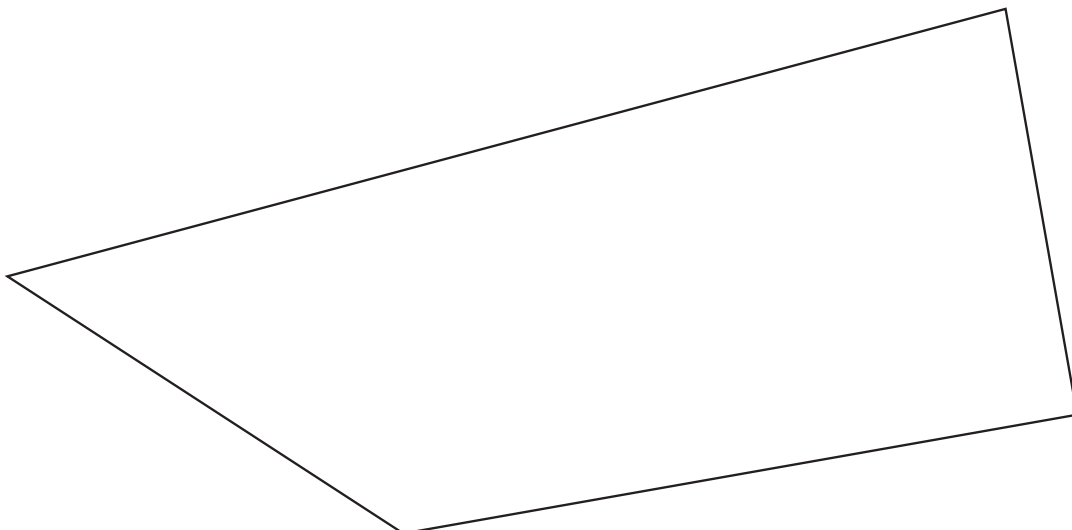
7ii

2 marks

8

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

Tick (✓) the obtuse angle.



8

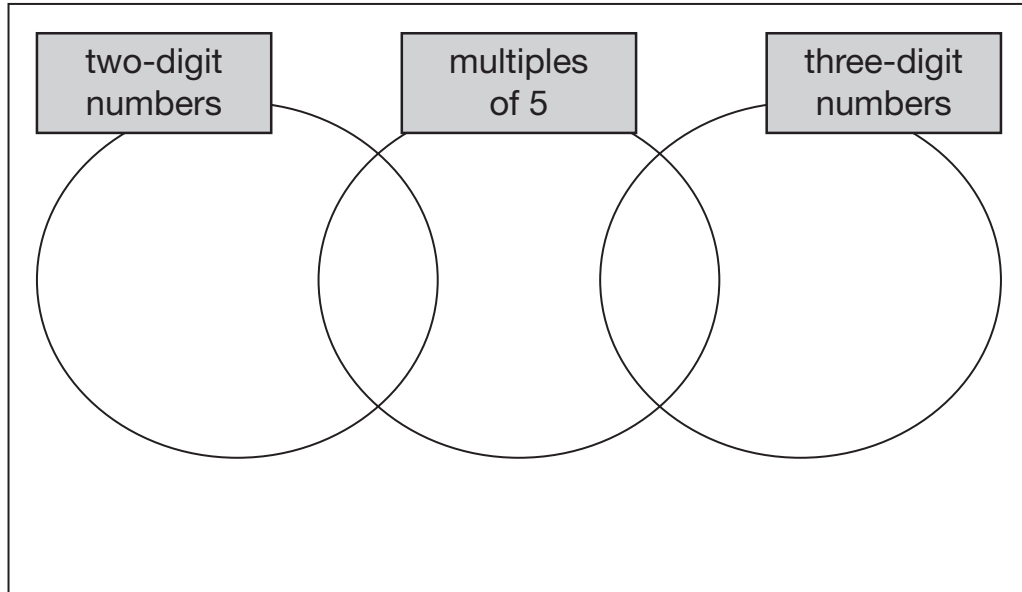
1 mark

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

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

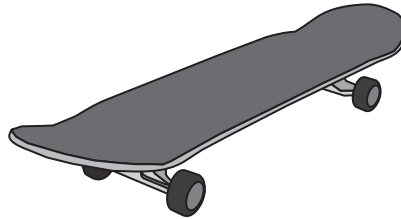
10b

---

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?



Week

11a

1 mark

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



Week

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

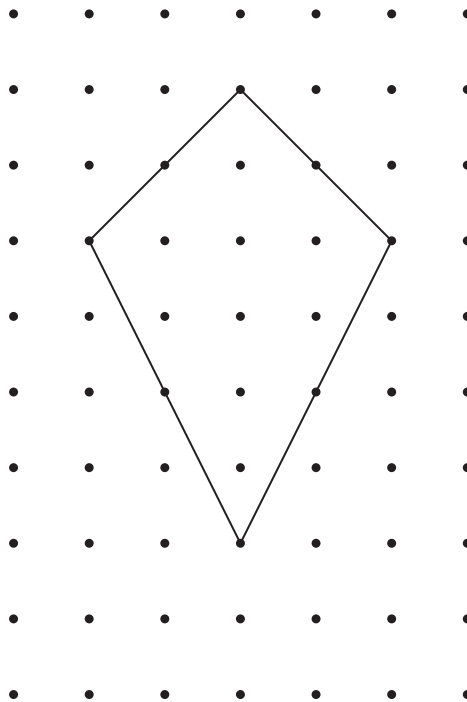
13ii

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

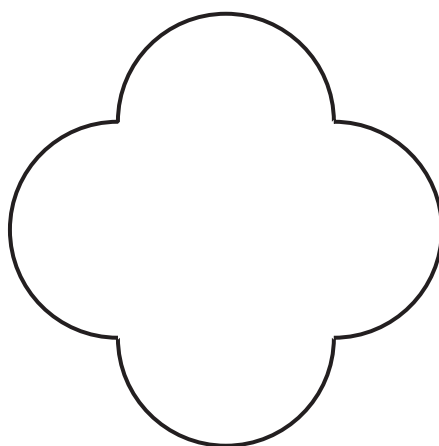
14ii

2 marks



15

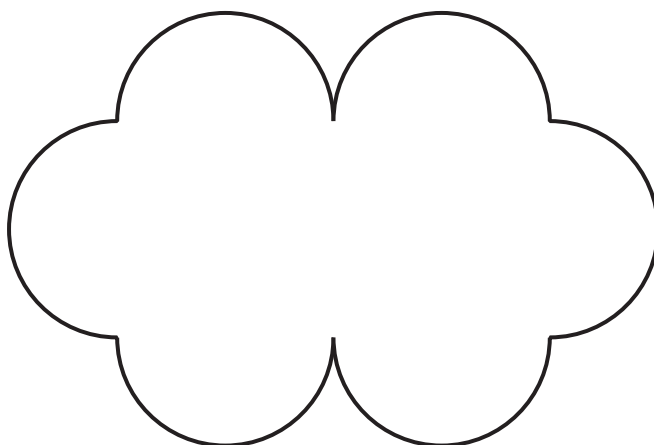
This shape is made out of four identical curves.



**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

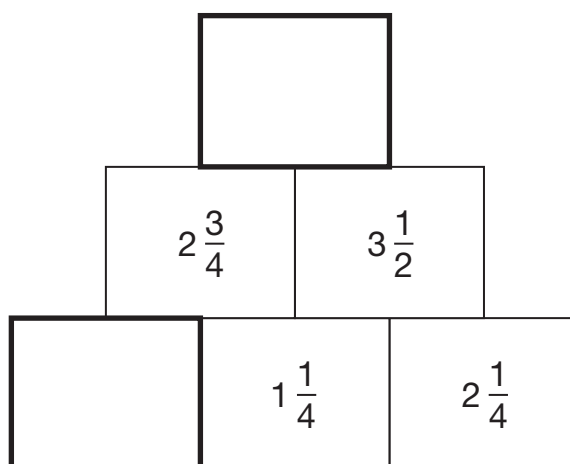
17

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 outline intended for the student to write their explanation.

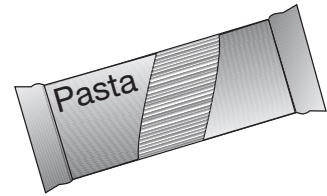
19

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 \_\_\_\_\_



Standards  
& Testing  
Agency

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