

Ma

KEY STAGE

2

LEVELS

3–5

# Mathematics

## Paper 1

Calculator **not** allowed

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

2015



D 0 0 0 6 0 A 0 1 2 4

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# Instructions

You **may not** use a calculator to answer any questions in this paper.

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 white space on a page.

Do not write over any barcode.

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



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



D 0 0 0 6 0 A 0 3 2 4

1

Megan likes honey, but not jam.

Alfie likes honey and jam.

Chen does not like honey or jam.

Donna only likes jam.

Write the children's names in the correct parts of the sorting diagram.



	likes honey	does <b>not</b> like honey
likes jam		
does <b>not</b> like jam		

1i

1ii

2 marks



2

Circle the number closest to 500



525

491

511

408

550

        <sup>2</sup>  
1 mark

3

Calculate **735 + 2669**



        <sup>3</sup>  
1 mark



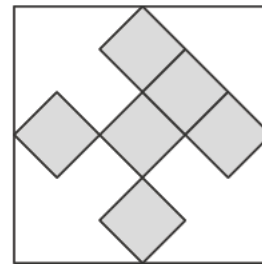
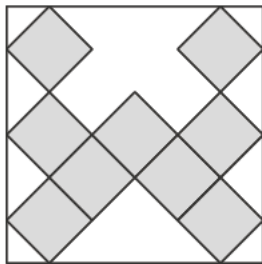
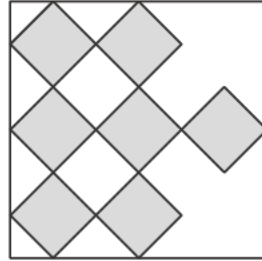
D 0 0 0 6 0 A 0 5 2 4

4

These three square tiles have symmetrical patterns on them.

Draw the line of symmetry on each tile.

Use a ruler.



4i

\_\_\_\_\_

4ii

\_\_\_\_\_

2 marks



5

Liam hires a bike.

He has to return it by 3 pm.

The time is 2:25 pm.



How many minutes has he got left?



minutes

5a

1 mark

Amy hires a bike for 45 minutes.

She takes the bike out at 3:30 pm.

At what time must she return the bike?



pm

5b

1 mark

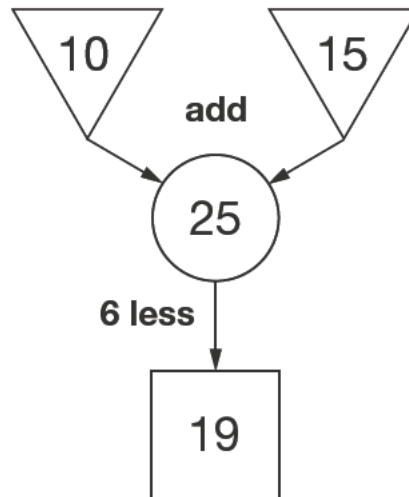


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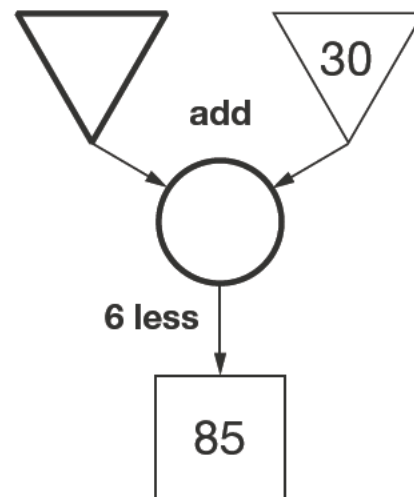
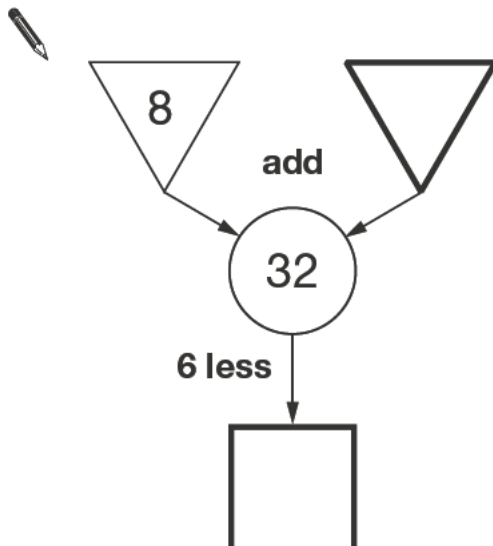
6

In this diagram, the numbers in the triangles add together to make the number in the circle.

The number in the square is 6 less than the number in the circle.



Write the four missing numbers in these diagrams.



6a

1 mark

6b

1 mark





7

The numbers in this sequence increase by 30 each time.

20    50    80    110 ...

The sequence continues in the same way.

Which number in the sequence will be **closest to 300**?



Show  
your  
working

71

711

2 marks



D 0 0 0 6 0 A 0 9 2 4

8

Write the missing numbers.



$$150 - \boxed{\phantom{000}} = 87$$

8a

1 mark

$$90 \times \boxed{\phantom{000}} = 450$$

8b

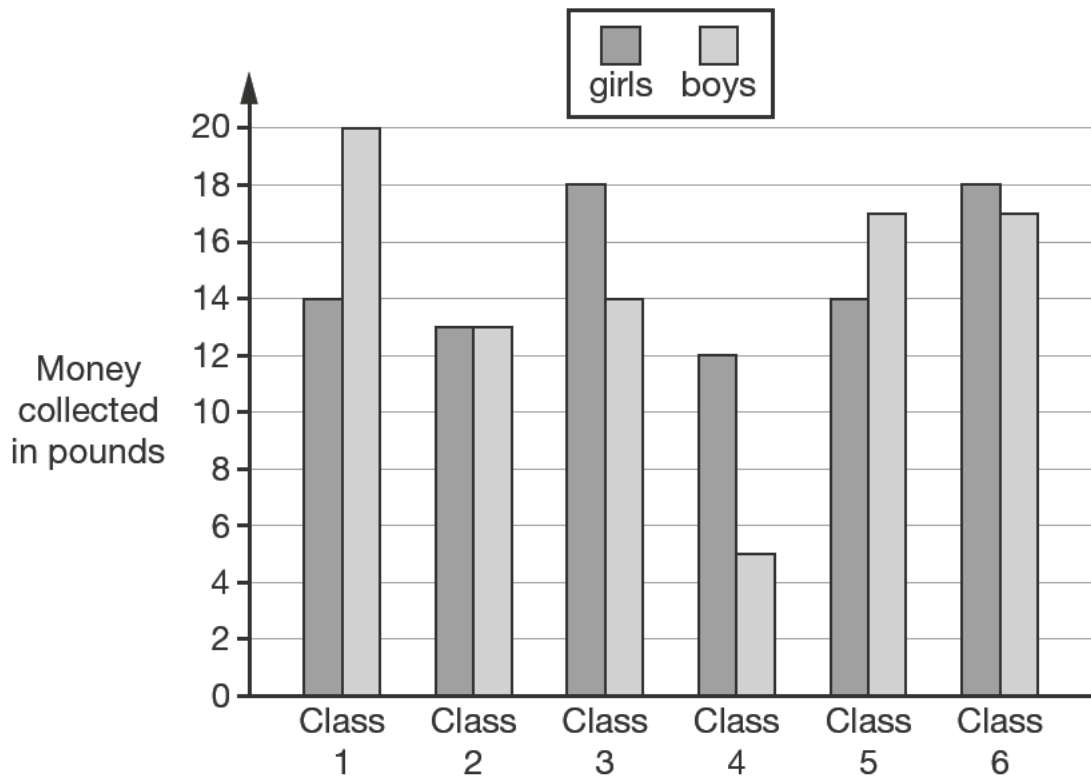
1 mark



9

Six classes at Winward Primary School collected some money.

The chart shows how much money the boys and girls collected.



In Class 4, how much more money did the girls collect than the boys?




9a

1 mark

How many classes collected more than £30?




9b

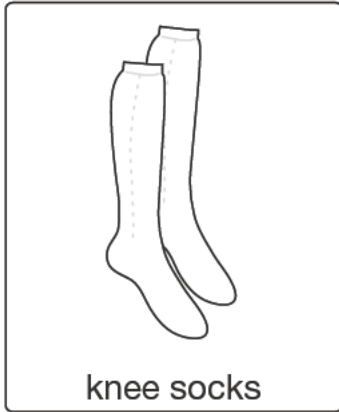
1 mark



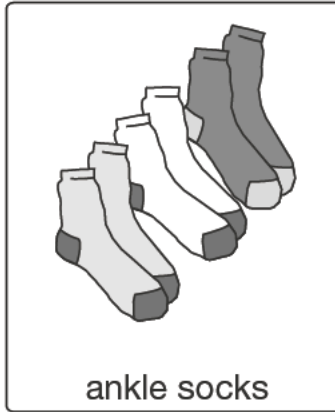
D 0 0 0 6 0 A 0 1 1 2 4

10

A shop sells pairs of socks.



1 pair for £5.45



3 pairs for £7.50



5 pairs for £8.50

Kirsty buys 1 pair of knee socks and 3 pairs of ankle socks.

She pays with a £20 note.

How much change does she get?

Show your working

10ai

10aii

2 marks

Amy spends £25.50 on trainer socks.

How many pairs of trainer socks does she get?

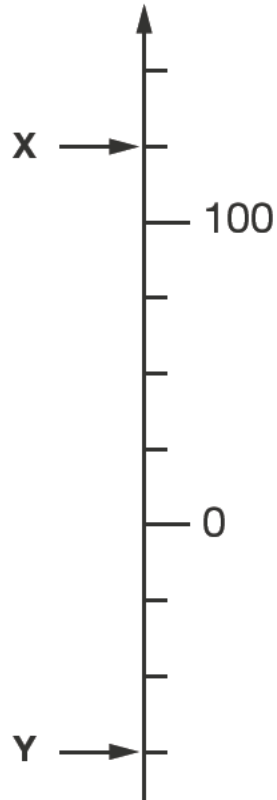
10b

1 mark



11

Here is part of a number line.



What is the value of **X**?



**X** =

11a

1 mark

What is the value of **Y**?



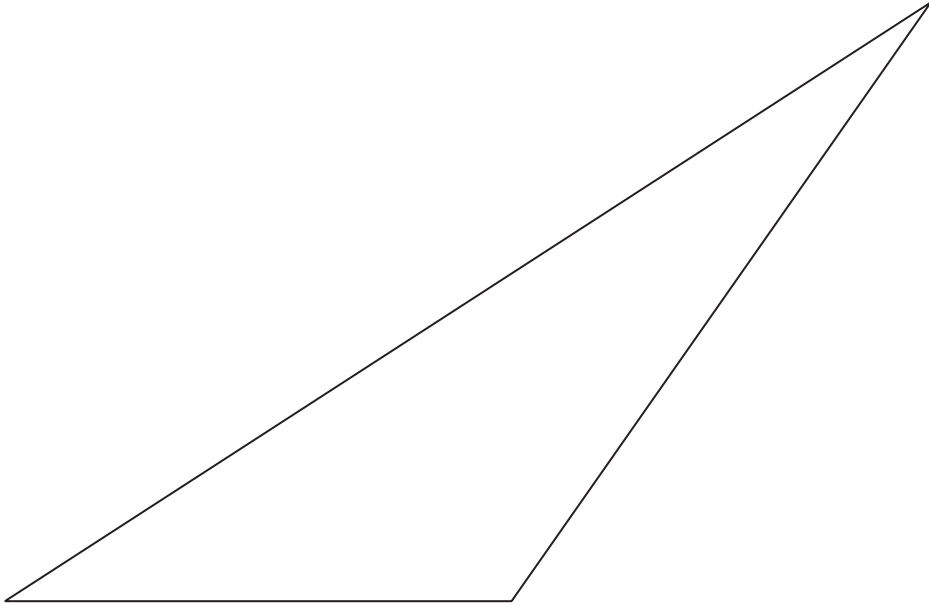
**Y** =

11b

1 mark



D 0 0 0 6 0 A 0 1 3 2 4



Measure the length of the shortest side of this triangle in millimetres.



12a

1 mark

Measure the size of the largest angle in this triangle.



12b

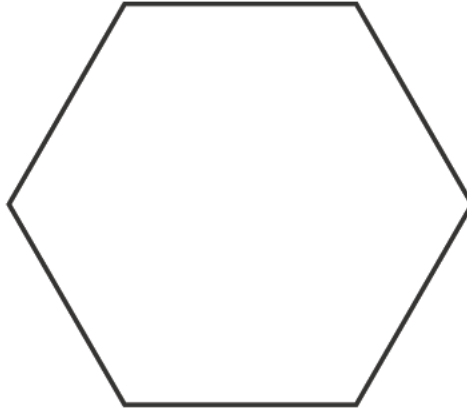
1 mark



13

Here is a hexagon.

Draw **two** straight lines across the hexagon to make two triangles and two quadrilaterals.



13

1 mark

14

Calculate  $16.72 \times 5$



14


1 mark



D 0 0 0 6 0 A 0 1 5 2 4

15

Write the two missing digits.



$$\boxed{\phantom{0}} \boxed{1} - \boxed{2} \boxed{\phantom{0}} = 34$$

15

1 mark

16

Liam has five coins.

Three of the coins add up to **30p**.Three of the coins add up to **40p**.All five coins add up to **£1**

What are the coins that Liam has?



p	p	p	p	p
---	---	---	---	---

16

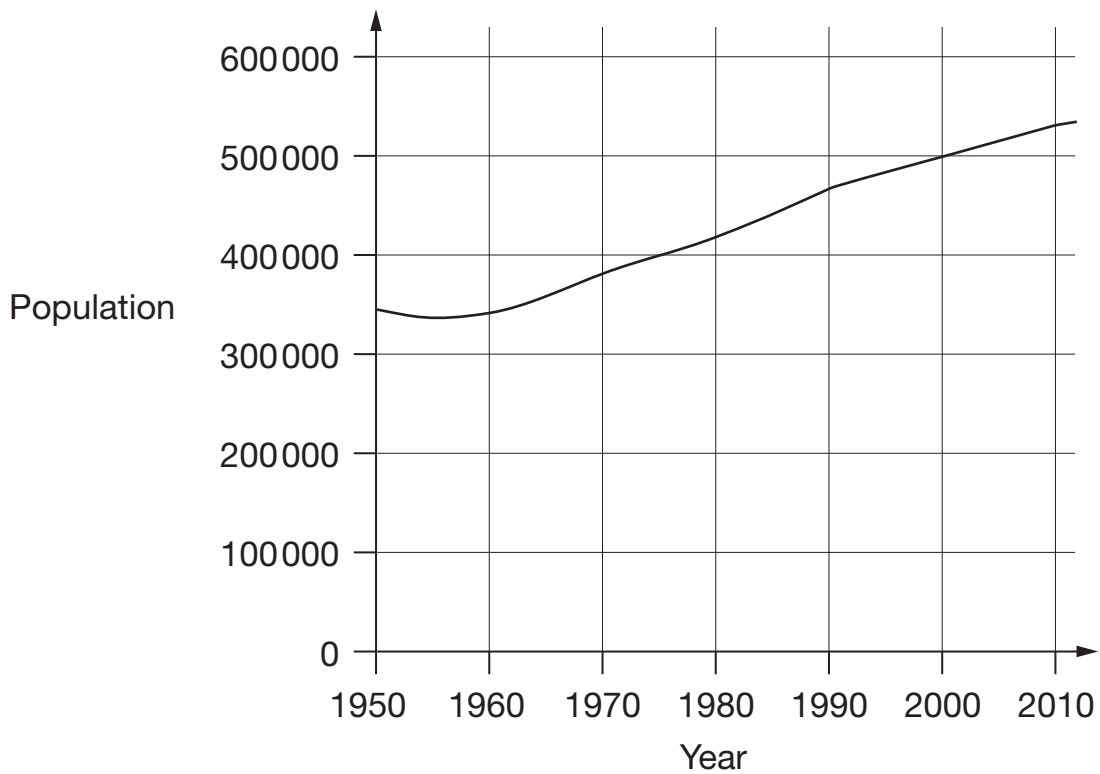
1 mark





17

This chart shows the population of Cornwall from 1950 to 2010.



Look at the chart.

In which year did the population first reach 400 000?



17a

1 mark

How much did the population increase from 1950 to 2000?



17b

1 mark

What was the population of Cornwall in 2010?



17c

1 mark



D 0 0 0 6 0 A 0 1 7 2 4

18

Calculate **55%** of **640**

18

1 mark

19

This is Kirsty's recipe for breakfast cereal.

- 50 grams of oats
- 30 grams of raisins
- 40 grams of nuts



If she uses 125 grams of oats, how many grams of raisins does she need?

Show  
your  
working

19i

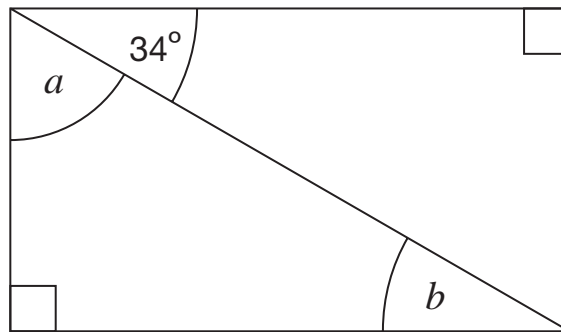
19ii

2 marks



20

Here is a rectangle.



Not to scale

Calculate the size of angles  $a$  and  $b$ .

Do not measure the angles.

  $a =$

20a

1 mark

$b =$

20b

1 mark



D 0 0 0 6 0 A 0 1 9 2 4

21

The **difference** between two numbers is 2

When each number is rounded to the nearest hundred,  
the difference between them is 100

Write what the two numbers could be.

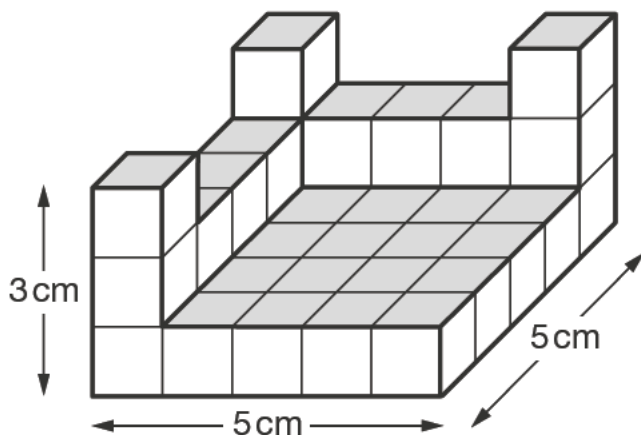


and

21  
1 mark

22

This shape is made of wooden centimetre cubes.



**Not  
actual  
size**

How many **more** centimetre cubes are needed to make it into  
a solid cuboid 3 cm tall, 5 cm long and 5 cm wide?



22  
1 mark



Alfie says,



***'When you multiply two numbers together, the answer is always greater than either of the numbers you started with.'***

Is Alfie correct?  
Circle **Yes** or **No**.



Yes / No

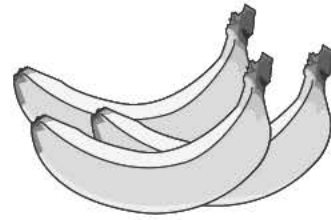
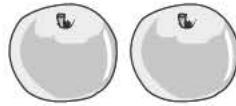
Explain how you know.



A shop sells fruit.

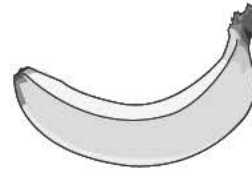
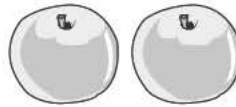
Chen buys 2 apples and 3 bananas.

He pays £2.35



Megan buys 2 apples and 1 banana.

She pays £1.25



How much does **one** banana cost?

Show your working

24i

24ii

2 marks



[END OF TEST]

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