

2025 national curriculum tests

Key stage 2

Mathematics

Paper 2: reasoning

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



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Instructions

You **must not** use a calculator to answer any questions in this test.

Questions and answers

You have **40 minutes** to complete this test.

Follow the instructions for each question.

Work as quickly and as carefully as you can.

If you need to do working out, you can use the space around the question.

Do not write over any barcodes.

Some questions have a method box like this:

The diagram illustrates a method box. It features a large rectangular grid. On the right side of the grid, there is a smaller, empty rectangular box. To the left of the grid, a rounded rectangular callout box contains the text "Show your method". A line connects the callout box to the left edge of the grid.

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

If you cannot do a question, **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**.

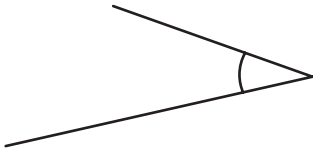
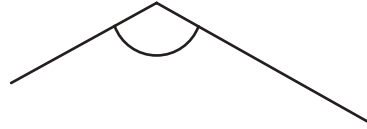
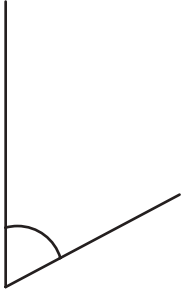
Marks

The number under each line at the side of the page tells you the number of marks available for each question.



1

Circle the angle that is closest in size to a **right angle**.



1 mark



2

Write the two missing numbers.

Add 1,000 →

Add 100 ↓

5,350	6,350		
5,450	6,450	7,450	
		7,550	

1 mark

1 mark





Layla's money



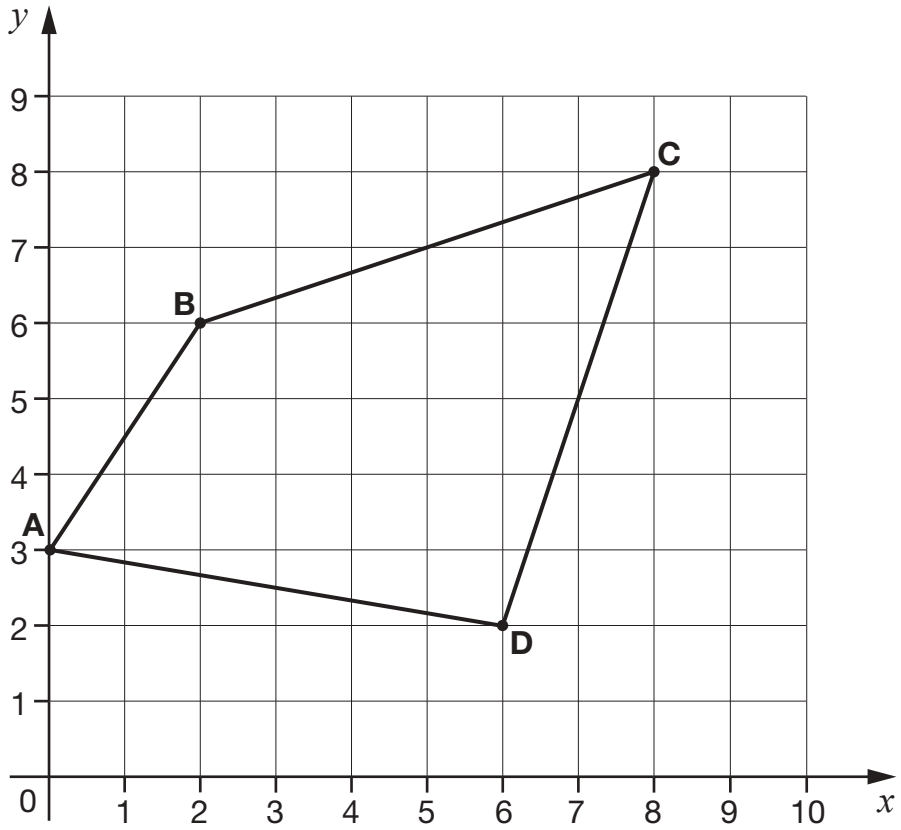
Adam's money

How much **more** money does Layla have than Adam?

1 mark



4



Match each point to its coordinates.

A

(6, 2)

B

(2, 6)

C

(0, 3)

D

(8, 8)

1 mark



5

Olivia counts in eights, starting at zero.

Tick **all** the numbers Olivia should say.

24

42

78

112

1 mark

6

5,639,728

Which digit is in the **hundred thousands** place?

1 mark

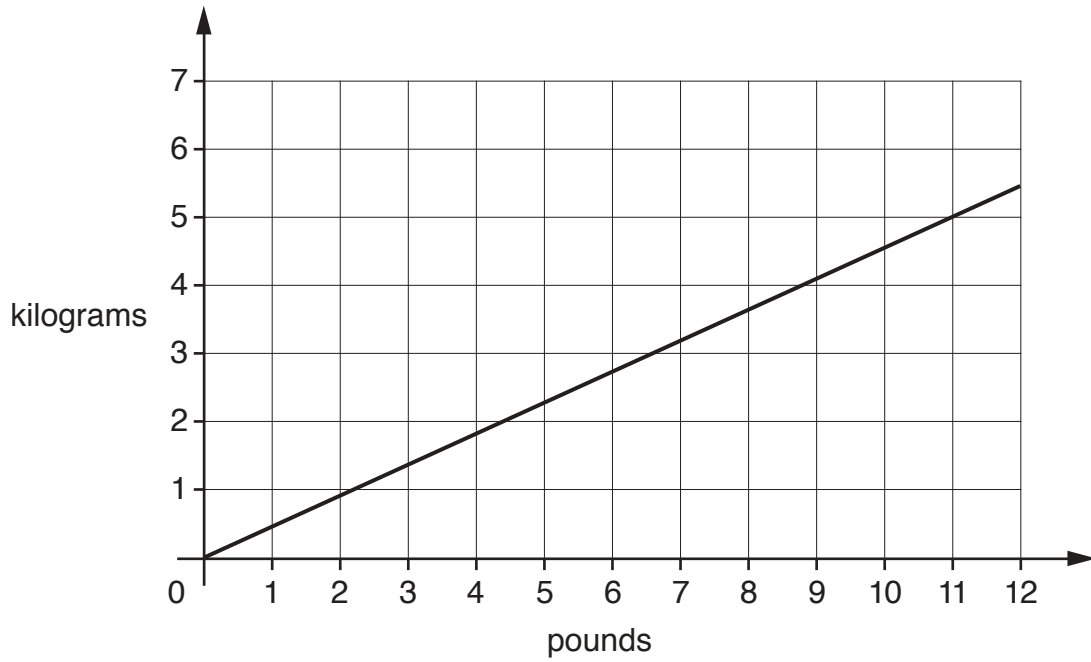
What is **two thousand more** than 5,639,728?

1 mark



7

Here is a graph for converting kilograms and pounds.



Use the graph to convert 5 kilograms to pounds.

pounds

1 mark

Use the graph to convert 7 pounds to the **nearest** kilogram.

kg

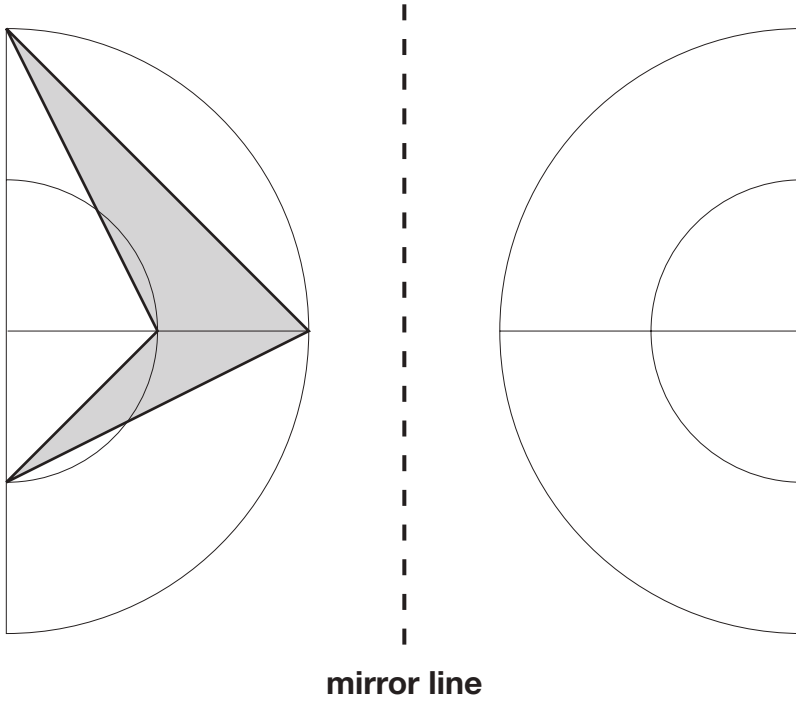
1 mark



8

Draw the reflection of the shaded shape about the mirror line.

Use a ruler.



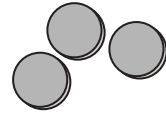
1 mark



9

Ali has 35 red counters.

He divides them into groups of 3

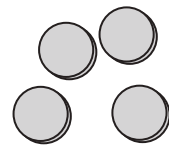


What is the **greatest** number of groups of 3 he can make?

1 mark

Maria has 35 green counters.

She divides them into groups of 4



How many green counters does she have **left over**?

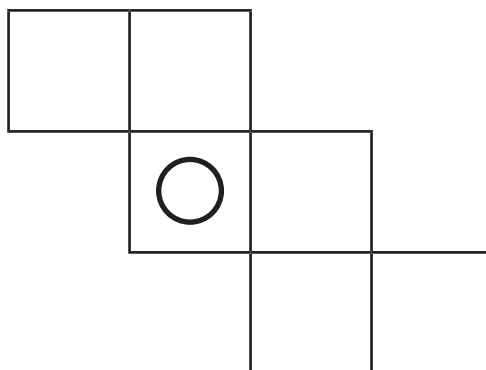
1 mark

10

Olivia is making a cube from a net.

She wants the cube to have two circles on opposite faces.

Draw **one circle** to complete Olivia's net.



1 mark



12

Amina says,

600 millimetres is longer than 1 metre.



Amina is **not** correct.

Explain how you know.

1 mark



13Jack buys **four** concert tickets. Each ticket costs **£28**

Tick each calculation that Jack could use to work out the total cost.

One has been done for you.

$28 + 28 + 28 + 28$

$(20 \times 4) + (8 \times 4)$

$(4 \times 20) + 8$

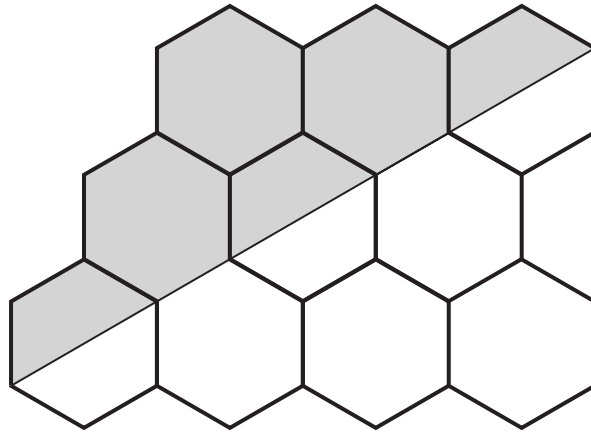
$(4 \times 30) - (4 \times 2)$

$(4 \times 30) - 2$

2 marks

15

Here is a diagram made from regular hexagons.



What **percentage** of the diagram is shaded?

 %

1 mark



17

A 4 kilogram bag of rice costs £6

What is the cost of 500 grams of the rice?

1 mark

18

Tick the fractions that are **greater than** $\frac{2}{3}$

$$\frac{5}{6} \quad \square$$

$$\frac{4}{9} \quad \square$$

$$\frac{9}{12} \quad \square$$

$$\frac{11}{15} \quad \square$$

$$\frac{10}{21} \quad \square$$

2 marks



20

Sophie thinks of **two prime numbers**.

She adds them together.

Her answer is **24**

Write **all** of the different pairs of prime numbers that Sophie could think of.

and

and

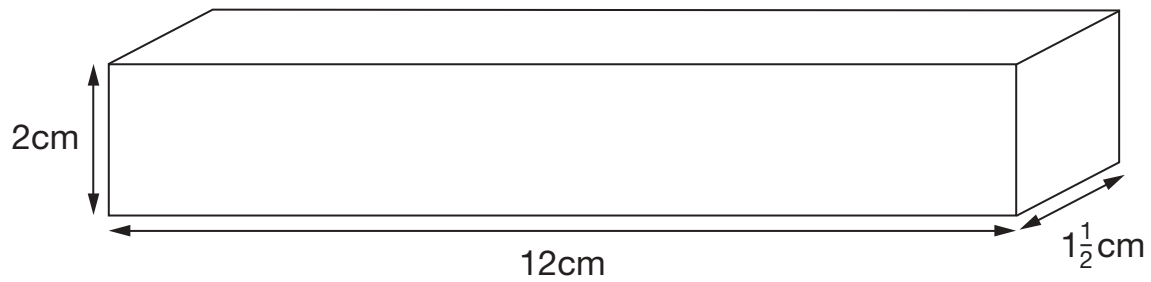
and

2 marks



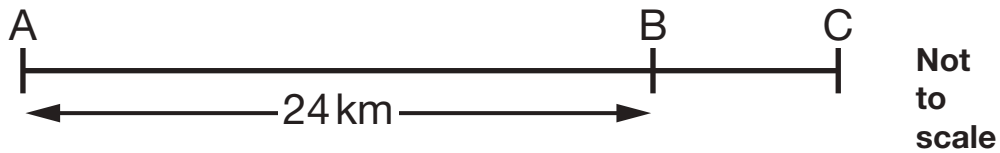
22

Calculate the **volume** of this cuboid.



1 mark

23



The distance from A to B is $\frac{3}{4}$ of the distance from A to C.

What is the distance from **B** to **C**?

1 mark



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