

2025 national curriculum tests

# Key stage 2

## Mathematics

### Paper 3: reasoning

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



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1

Circle the numbers that have **8** in the thousands place.

84,623

28,436

683,052

8,325

608,231

1 mark

2

Tick **all** the numbers that are less than one million and fifty thousand.

1,400,000

1,049,900

1,060,000

1,030,900

1 mark



3

There were 15,961 people at a football game.

Round this number to the nearest hundred.

1 mark

4

Jack buys 2 kilograms of pears.

He spends £3.28

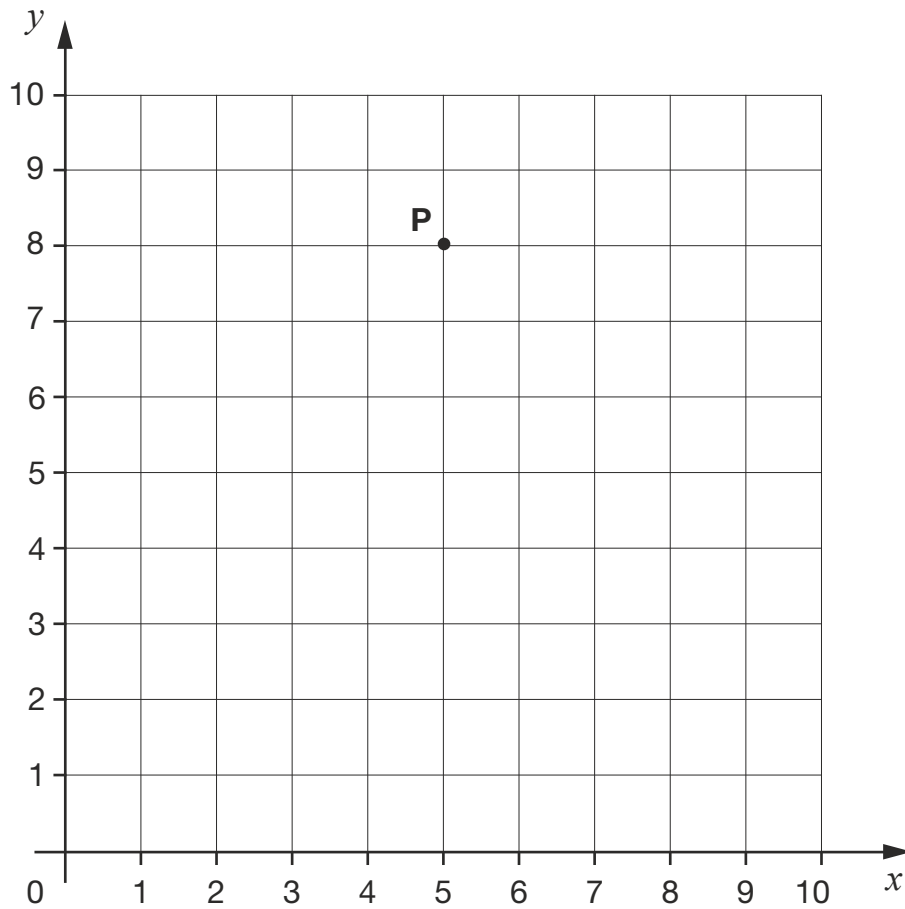
What is the cost of **one** kilogram of pears?

1 mark



5

Point **P** is located at (5, 8) on the grid.



Point **P** is translated 4 units right, 6 units down and 2 units left.

What is the location of point **P** after the three translations?

1 mark





7

Draw **four lines** to match each improper fraction to its equivalent mixed number.

$$\frac{26}{4}$$

$$\frac{27}{5}$$

$$\frac{30}{4}$$

$$\frac{32}{5}$$

$$5\frac{2}{5}$$

$$4\frac{2}{5}$$

$$6\frac{2}{4}$$

$$4\frac{2}{4}$$

$$7\frac{2}{4}$$

$$6\frac{2}{5}$$

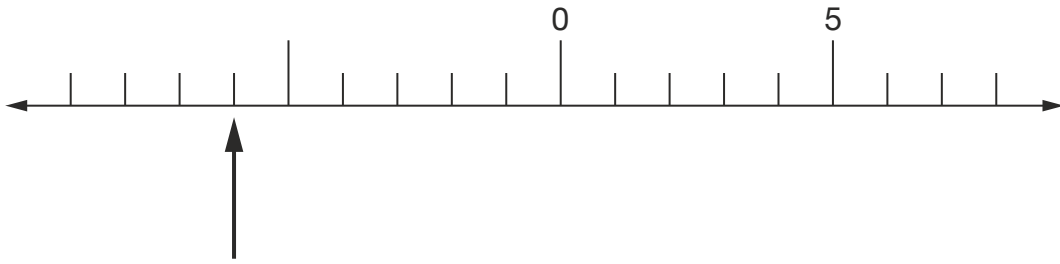
2 marks





9

Here is part of a number line.



Write the number that the arrow is pointing to.

1 mark

Write the number that is 16 less than 7

1 mark



10

Here is some information about four animals in a zoo.

	Elephant	Hippo	Rhino	Giraffe
Mass	6,300kg	1,100kg	2,400kg	1,200kg
Height	3.4m	1.5m	1.7m	6.0m

Tick the statements that are **true**.

The elephant is exactly **three times** heavier than the rhino.

The hippo is a **quarter** of the height of the giraffe.

The rhino is **20cm** taller than the hippo.

The tallest animal is also the heaviest.

2 marks



Tick the number sentence that is correct.

Tick **one**.

$$0.304 = \frac{4}{10} + \frac{3}{1000} \quad \square$$

$$0.43 = \frac{43}{1000} \quad \square$$

$$0.403 = \frac{4}{10} + \frac{3}{1000} \quad \square$$

$$0.034 = \frac{3}{10} + \frac{4}{1000} \quad \square$$

1 mark

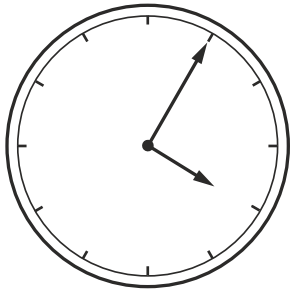


12

Each clock below shows the time in **am** or **pm**.

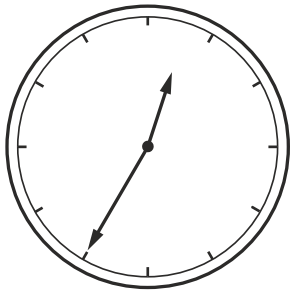
Match each clock to its 24-hour time.

One has been done for you.



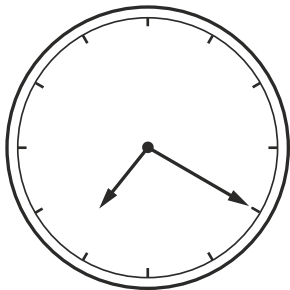
am

12:35



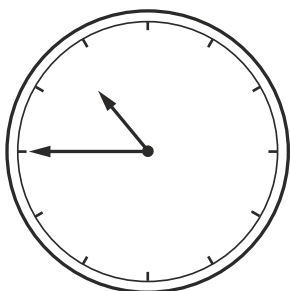
pm

04:05



am

22:45



pm

21:45

1 mark



13

Write these numbers in order, starting with the **least**.

$$\frac{9}{100}$$

0.999

$$\frac{99}{100}$$

0.009

**least**

1 mark



14

Look at this expression.

$$y + 4$$

Tick the value for  $y$  that gives a **prime** number value for  $y + 4$ 

$$y = 8$$

$$y = 9$$

$$y = 10$$

1 mark

Tick the value for  $y$  that gives a **square** number value for  $y + 4$ 

$$y = 5$$

$$y = 6$$

$$y = 7$$

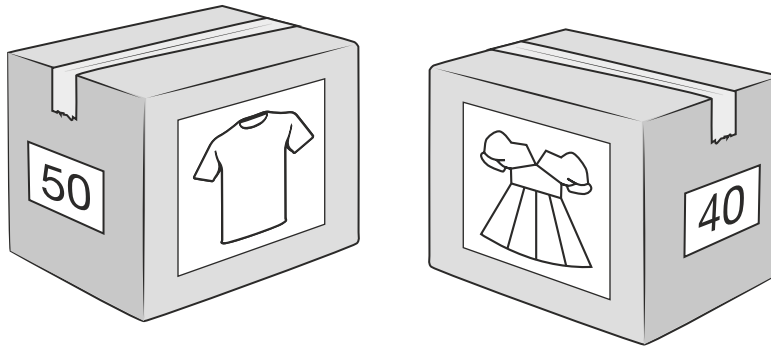
1 mark



15

A factory makes T-shirts and dresses.

They pack them in boxes.



There are **50** T-shirts in a box.

How many T-shirts are there in **250** boxes?

1 mark

There are **40** dresses in a box.

How many boxes are needed for **3,000** dresses?

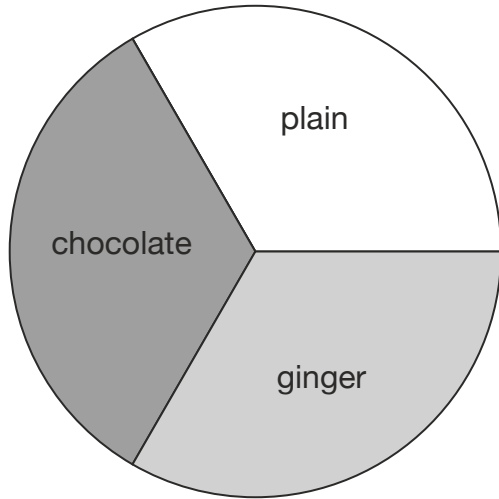
1 mark



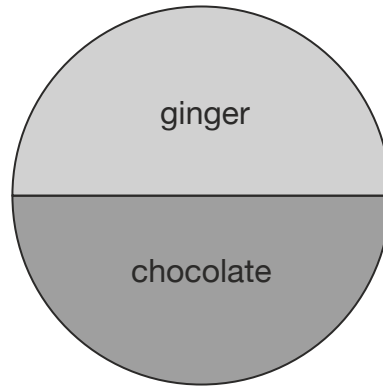
16

These pie charts show the biscuits in two tins.

Tin A has 36 biscuits.



Tin B has 20 biscuits.



Tin B has more chocolate biscuits than Tin A.

Explain why this is **incorrect**.

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

1 mark





18

Convert **5.65 km** to metres.

 m

1 mark

Convert **35.5 cm** to metres.

 m

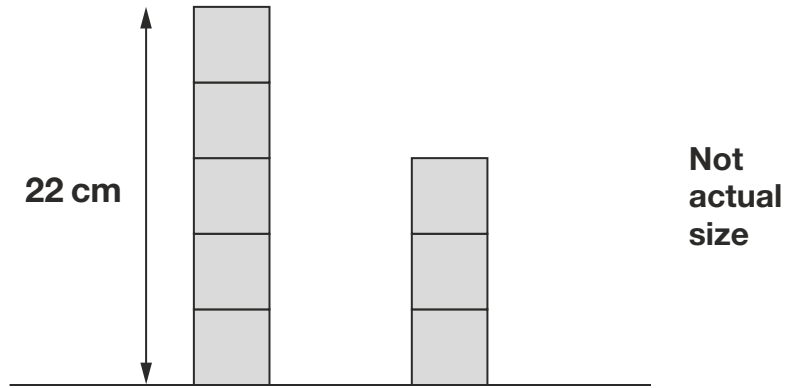
1 mark



19

Jacob has some wooden blocks that are all the same size.

He uses the blocks to make two towers.



The height of the taller tower is 22 centimetres.

What is the height of the smaller tower?

Show your method

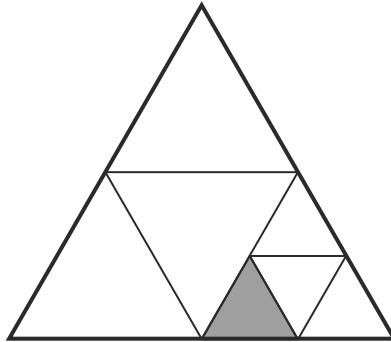
A large grid is provided for showing the method. On the right side of the grid, there is a rectangular box with the label "cm" inside, intended for the student to write the height of the smaller tower.

2 marks



20

This shape is made from equilateral triangles.



What fraction of the **whole** shape is shaded?

1 mark

21

Here is some information about a number:

- It has two digits
- It is a multiple of 7
- One of the digits is 8

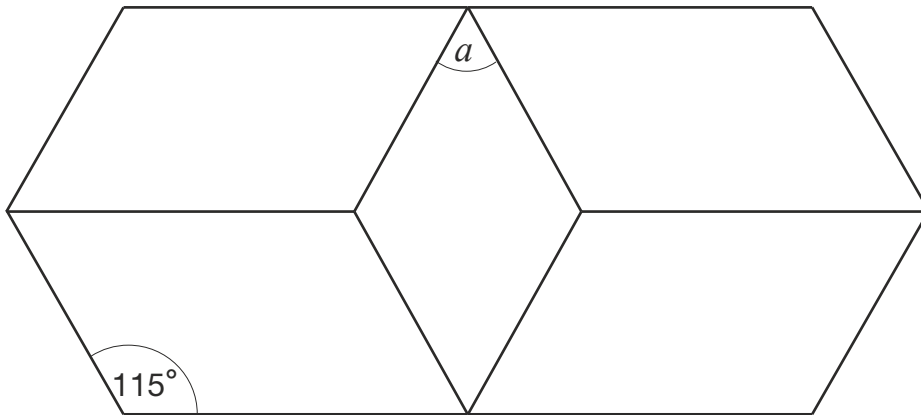
Write **all** the possible numbers that the number could be.

2 marks



22

This diagram shows four identical parallelograms and a rhombus.



Not to scale

Calculate the size of angle  $a$ .

Show  
your  
method

A large grid for showing the method. A small box with a dot is provided for the answer.

2 marks



**[END OF TEST]**

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Key stage 2 mathematics Paper 3: reasoning

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