

# 2023 national curriculum tests

Key stage 2

## MATHEMATICS

Modified large print

### Paper 2: reasoning

First name \_\_\_\_\_

Middle name \_\_\_\_\_

Last name \_\_\_\_\_

Date of birth      Day \_\_\_\_\_ Month \_\_\_\_\_ Year \_\_\_\_\_

School name \_\_\_\_\_

DfE number \_\_\_\_\_

**Note to markers:**  
This paper should be marked using the modified large print amendments to the mark schemes – MLP with the standard mark schemes for KS2 Mathematics: Paper 2.

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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, plus your additional time allowance.**

**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 any space on the page.**

**Some questions say: ‘Show your method.’**

**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.**

1. Look at the four times listed below.

**11:55**

**11:05**

**11:50**

**05:11**

**Write the time from the list that is the same as 5 minutes past 11**

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2. Look at the five temperatures below.

6°C

-4°C

1°C

-10°C

3°C

Write these temperatures in order, starting with the lowest.

lowest \_\_\_\_\_°C

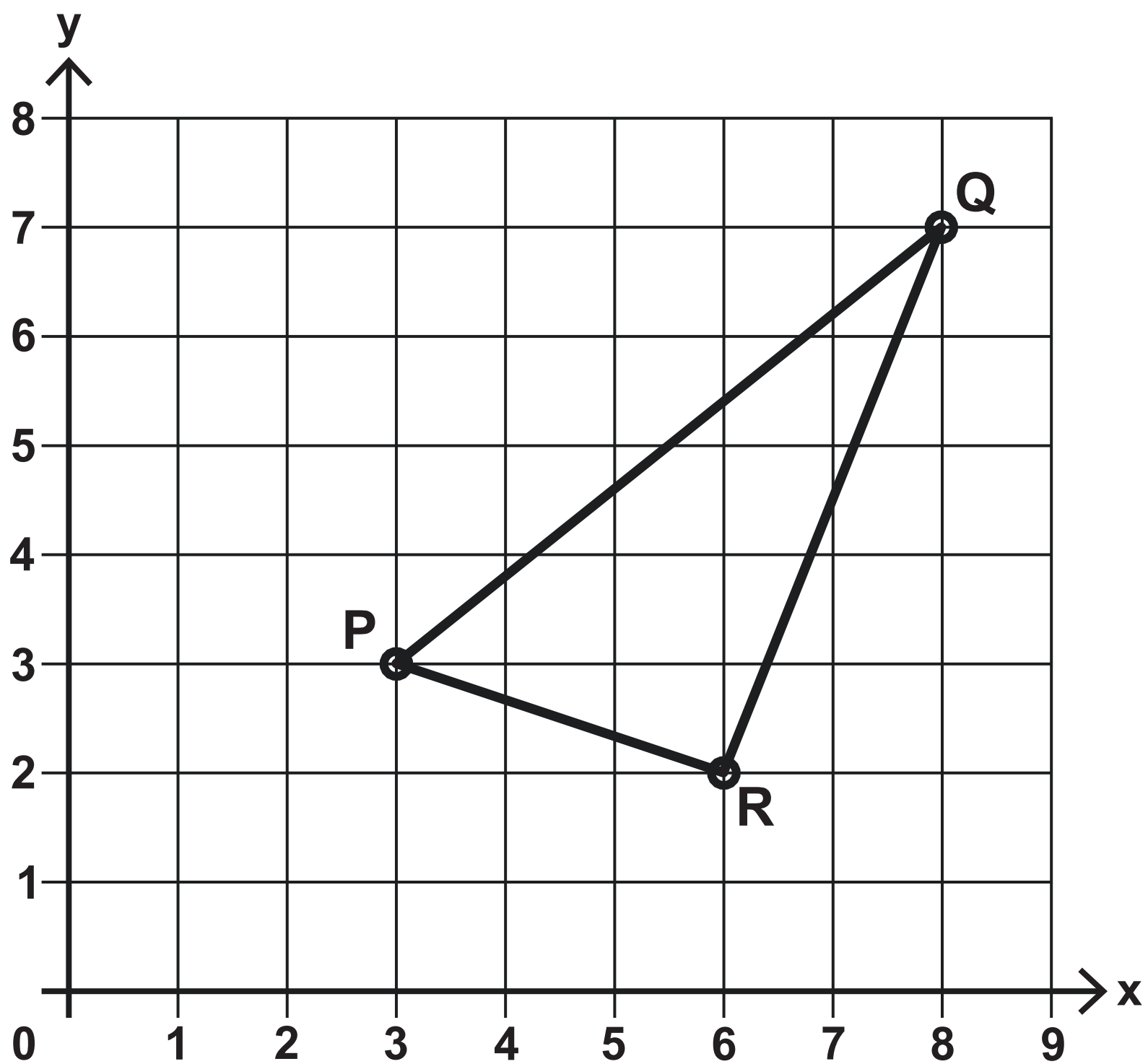
\_\_\_\_\_°C

\_\_\_\_\_°C

\_\_\_\_\_°C

\_\_\_\_\_°C

3. Look at the shape on the grid below.



**PQR** is a triangle.

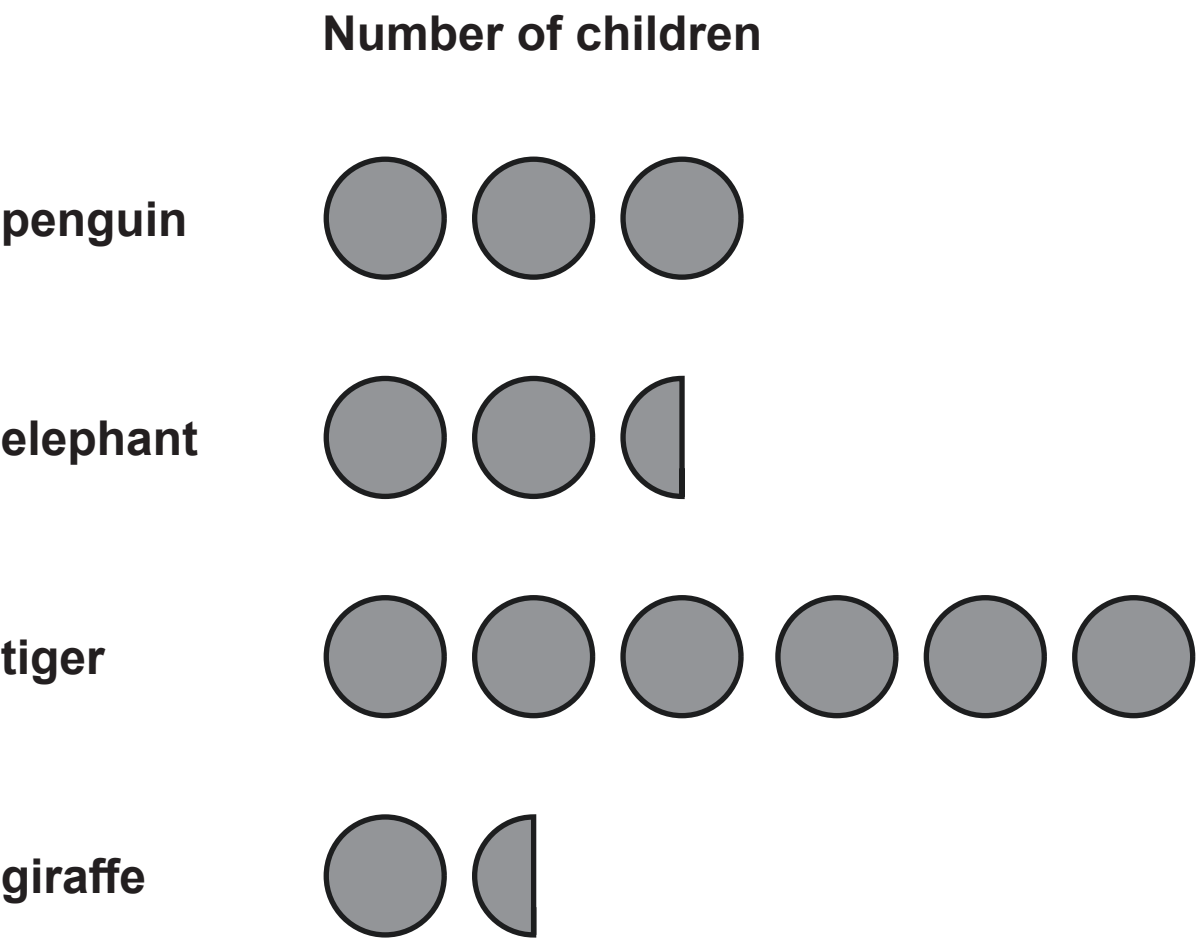
What are the coordinates of point **R**?

( \_\_\_\_\_ , \_\_\_\_\_ )

4. Some children choose their favourite zoo animal.

The pictogram below shows the results.

Key:  stands for 2 children



How many more children choose tiger than elephant?

\_\_\_\_\_

**5. Cars and motorbikes are parked in a street.**

**A car has 4 wheels.**

**A motorbike has 2 wheels.**

**Stefan counts 3 motorbikes and 5 cars.**

**He counts 28 wheels altogether.**

**Explain why Stefan cannot be correct.**



6. Kirsty buys **1** litre of apple juice for **£1.39**

She pays with a **£5** note.

How much change does Kirsty get?

£ \_\_\_\_\_

7. Look at the number sequence below.

**75      50      25      \_\_\_\_\_      \_\_\_\_\_**

Write the next **two** numbers in the sequence.

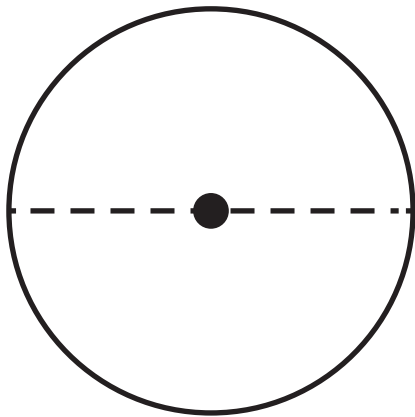
8. In **2012**, there were **24 372** schools in the United Kingdom.

Round the number of schools to the nearest **hundred**.

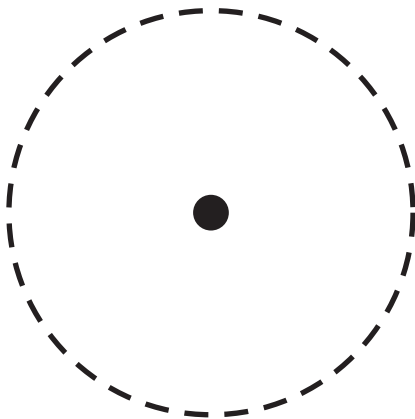
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9. Look at the diagrams below showing parts of a circle.

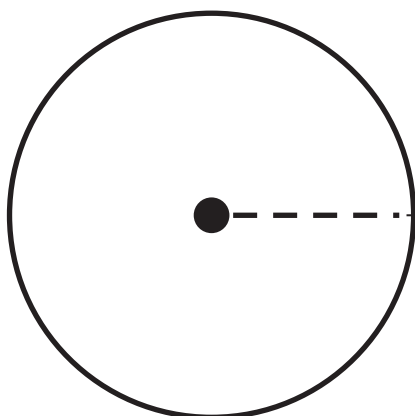
Match each diagram to the name of the dashed line.



**circumference**



**diameter**



**radius**

**10. Ken thinks of a number.**

**He divides it by 3**

**The answer is 72**

**What number was Ken thinking of?**

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**11. Write the number that is one thousand more than 19 039**

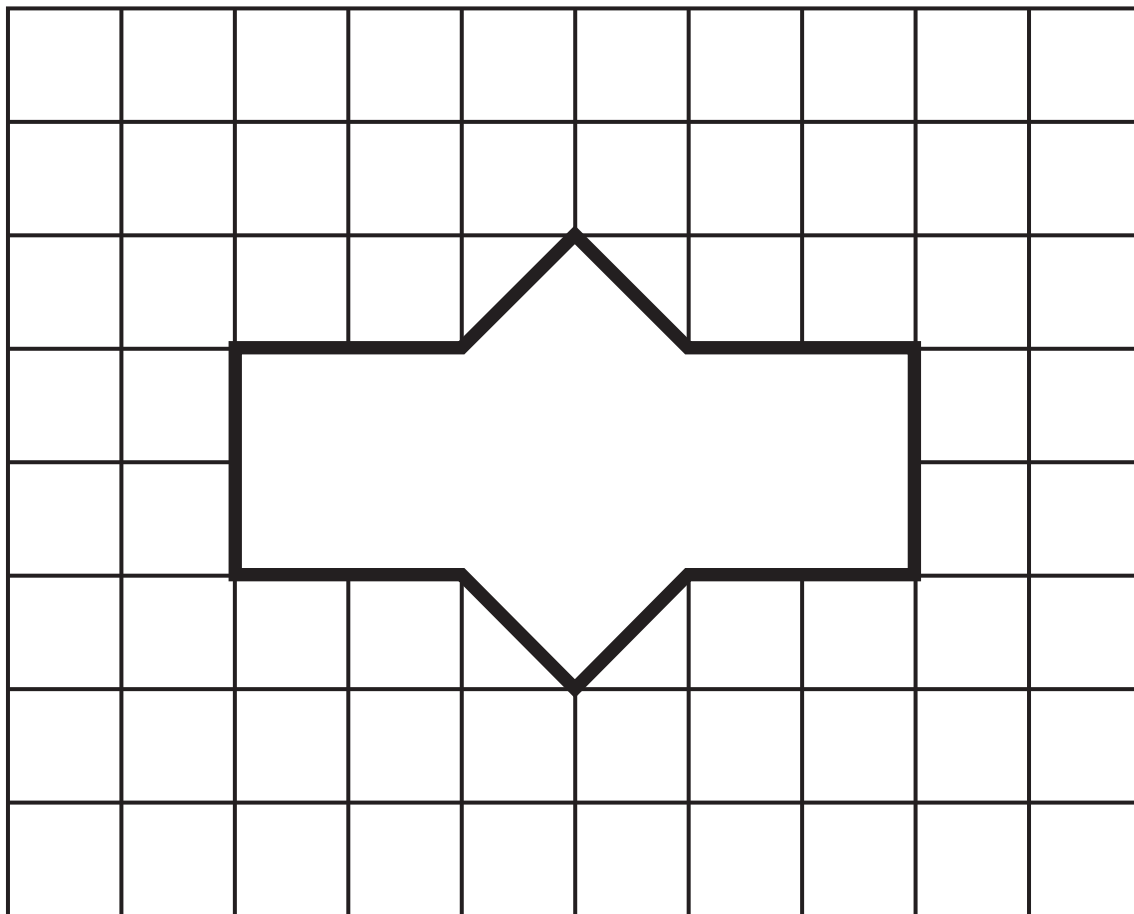
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**Write the number that is one hundred less than 19 039**

---

**12. You have a cut-out shape for this question.**

**Look at the shape on the grid below.**



**Draw all the lines of symmetry on this shape.**

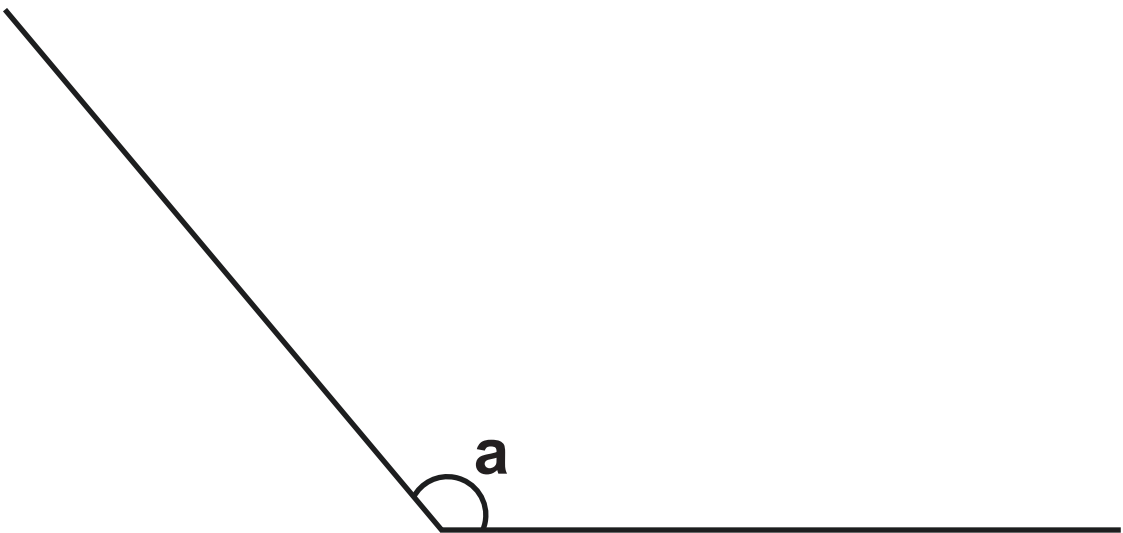
**Use a ruler.**

13.  $\frac{1}{5}$  of a number is **22**

**What is the number?**

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14. Look at the angle below.



Measure angle **a**

**a** is \_\_\_\_\_ °

15. Look at the four fractions below.

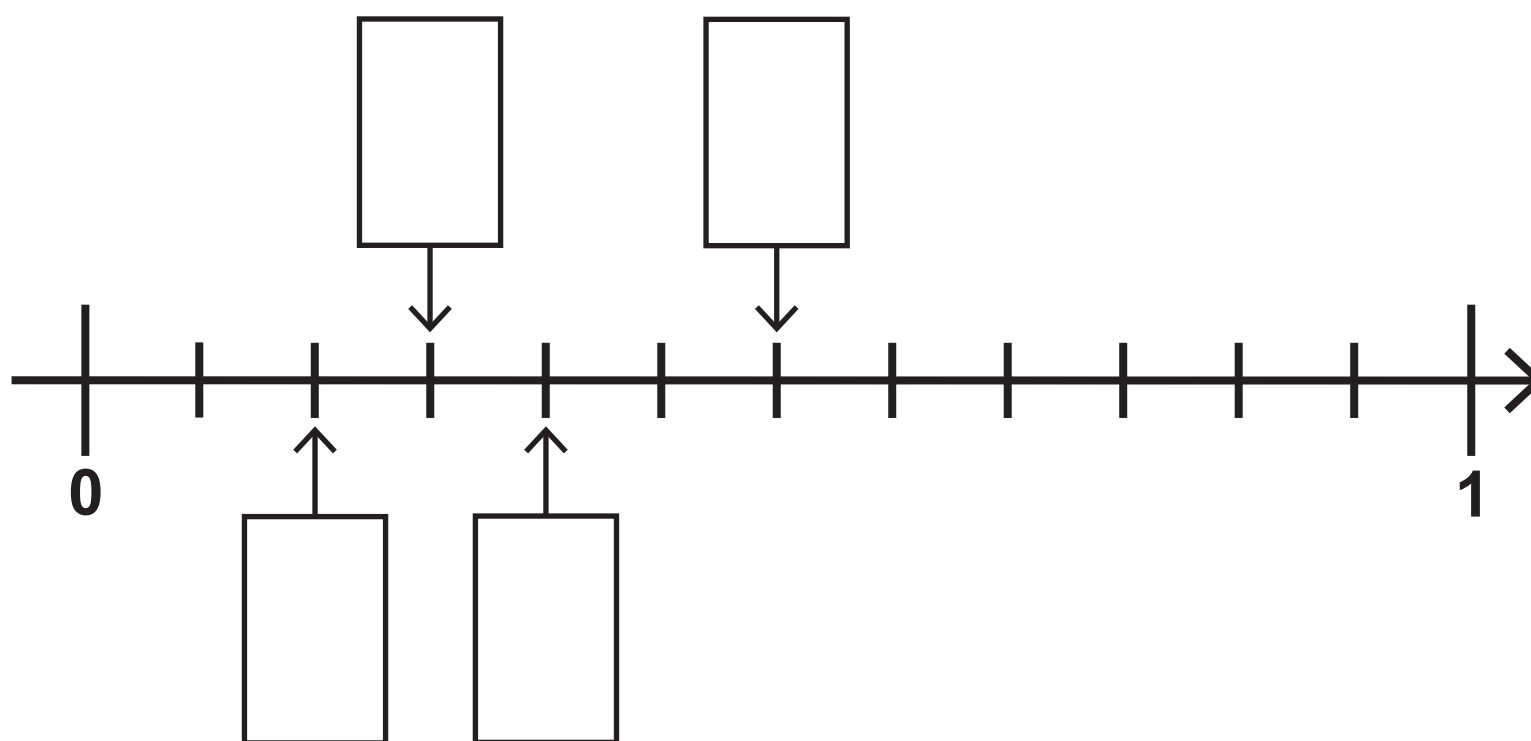
$$\frac{1}{3}$$

$$\frac{1}{6}$$

$$\frac{1}{4}$$

$$\frac{1}{2}$$

Write the correct fractions in the four boxes on the number line below.





16. One day last year, the rate of rainfall from  
**6:30 am** until **9:00 am** was **2** millimetres per hour.

What was the total rainfall from **6:30 am** until **9:00 am**?

\_\_\_\_\_ mm

**17. The manager of a flower shop orders 4 boxes of red roses.**

**There are 50 roses in each box.**

**The manager makes bunches with 6 roses in each bunch.**

**What is the greatest number of bunches that can be made?**

**Show your method.**

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18. A cinema sells tickets at three different prices.

$\frac{1}{20}$  of the tickets are price **A**

$\frac{3}{5}$  of the tickets are price **B**

The rest of the tickets are price **C**

What fraction of the tickets are price **C**?

Show your method.

---

**19. Write the missing number to make this division correct.**

$$15\,000 \div \boxed{\phantom{000}} = 75$$

**20. Write the missing numbers to make these two multiplications correct.**

a)  $\boxed{\phantom{00}} 235 \times 3 = 9\,705$

b)  $235 \times \boxed{\phantom{00}} 0 = 11\,750$

**21. The height of the tallest person in history is 8 feet 11 inches.**

**One foot is 30 centimetres**

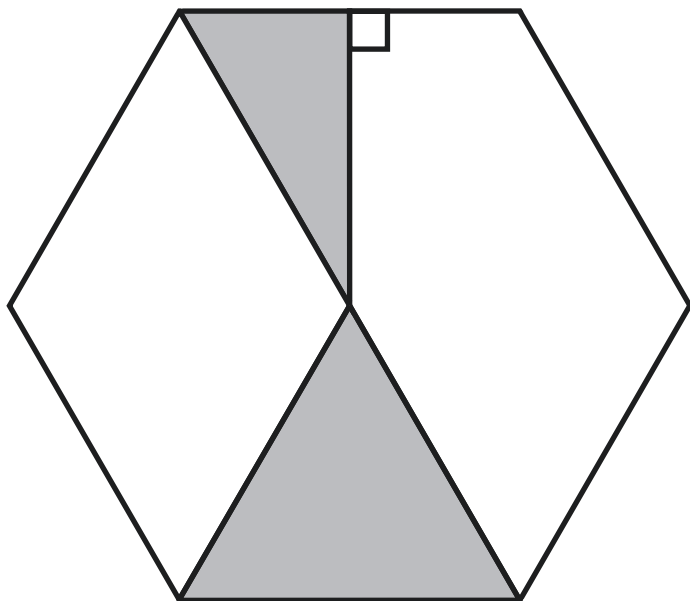
**One inch is 2.5 centimetres**

**Use this information to calculate the height of the tallest person,  
in centimetres.**

**Show your method.**

\_\_\_\_\_ **cm**

**22. Look at the regular hexagon below.**



**The area of the large shaded triangle is double the area of the small shaded triangle.**

**What fraction of the whole hexagon is the shaded area?**

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**23. A small box contains 650 grams of cereal.**

**A large box contains 20% more cereal.**

**One portion of cereal is 40 grams.**

**How many full portions are in a large box?**

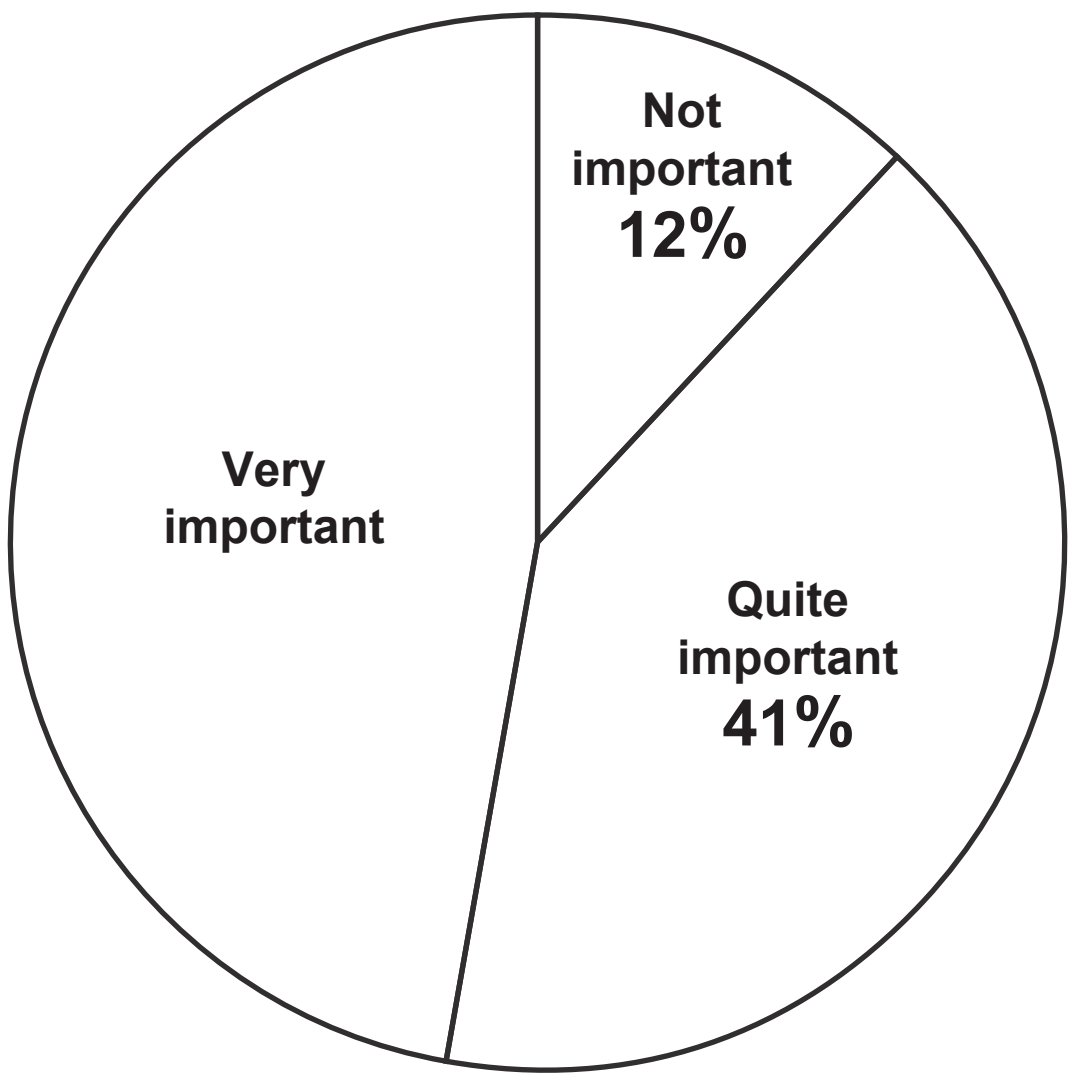
**Show your method.**

\_\_\_\_\_ portions

24. **1 200** pupils were asked this question:

How important is it to have a break when using a screen?

The chart below shows the results.



How many pupils answered 'Very important'?

\_\_\_\_\_ pupils



25. There are **25** sheets of paper in a small pack.

There are **500** sheets in a large pack.

a) How many small packs make one large pack?

\_\_\_\_\_

b) The mass of the paper in the large pack is **2.4** kilograms.

What is the mass of **one sheet** of paper, in **grams**?

Show your method.

\_\_\_\_\_ **g**

**26. The formula below is used to estimate the mass (in kilograms) of young children.**

$$\text{mass} = 2 \times (\text{age in years} + 5)$$

**a) Stefan's sister is 4 years of age.**

**Use the formula to estimate her mass.**

\_\_\_\_\_ kg

**b) The mass of Megan's brother is 16 kilograms.**

**Use the formula to estimate his age.**

\_\_\_\_\_ years

**END OF TEST**





Standards  
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2023 key stage 2 mathematics

Paper 2: reasoning

Print version product code: STA/23/8718/MLp ISBN: 978-1-78957-674-0

Electronic PDF version product code: STA/23/8718/MLe ISBN: 978-1-78957-688-7

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