



KEY STAGE 2

Mathematics

Paper 3: Reasoning

Write your details clearly in the boxes below.

First name

Second name

Date



1

A survey asked whether pupils walk to school.

1 mark

At **Riverside Primary**, **57%** said yes. At **Brookside Primary**, **27%** said yes.

At which school does a **higher percentage** of pupils walk to school?

2

Work out

1 mark

$$\frac{4}{5} \times \frac{5}{8}$$

Give your answer as a fraction in its **simplest form**.



3

Using a **ruler**, draw **accurately** a rectangle with side lengths **5 cm** and **6 cm**.

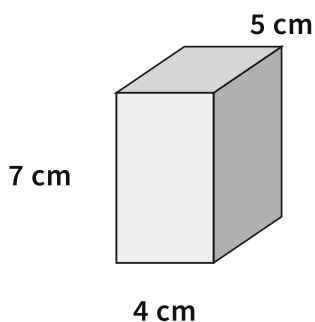
2 marks

Use a sharp pencil. Label each side with its length.

4

The diagram shows a solid cuboid. The depth is **5 cm**, the width is **4 cm** and the height is **7 cm**. All lengths are in centimetres.

1 mark



What is the **volume** of the cuboid?



5

A water tank holds **7 litres** when full.

1 mark

How many **millilitres** is that?

6

5.1 kilograms of sand is shared equally between **9** small sand pits.

1 mark

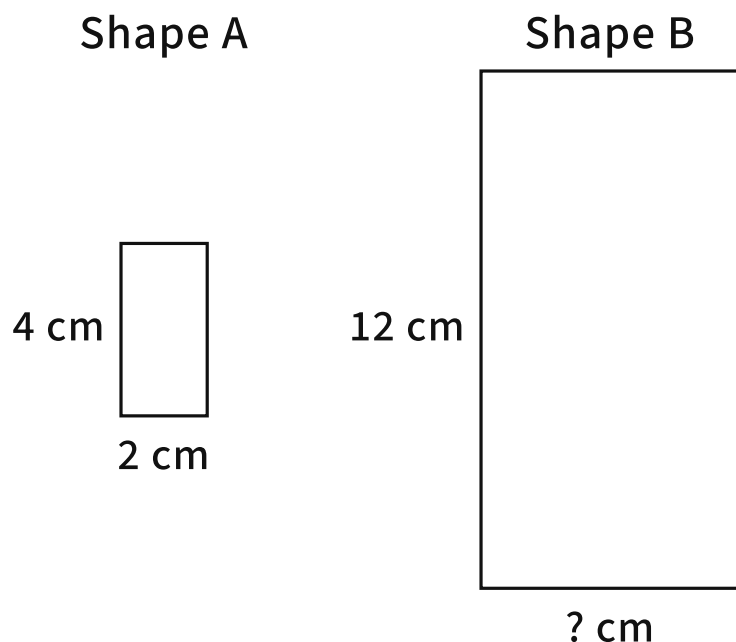
How many **kilograms** does each pit get?



7

Shape B is an enlargement of shape A with **scale factor 3**.

1 mark



What is the **width** of shape B?

8

A music festival sold **46,917** tickets in total.

1 mark

Round this number to the **nearest thousand**.



9

A parcel weighs **14.68** kg on a digital scale.

1 mark

Round this mass to the **nearest kilogram**.

10

A magazine costs **£6**.

1 mark

You pay with a **£10** note. How much **change** do you get?



11

The houses on one side of a street are numbered in a steady pattern.

2 marks

Complete the list with the **two missing** house numbers.

28, 32, 36, _____, _____.

12

Write the letters in order from **smallest** to **largest**.

1 mark

A $\frac{3}{7}$

B $\frac{5}{7}$

C $\frac{1}{7}$



13

In a survey, $\frac{6}{8}$ of people chose “bus” as their usual way to travel.

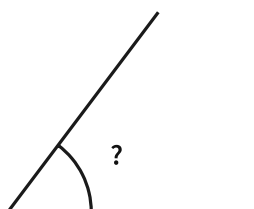
1 mark

What percentage of people is this?

14

The diagram shows an angle drawn accurately. Use a **protractor** to measure angle x.

1 mark



Give the size of the angle in degrees.



15

A DIY shop stacks paint supplies so that **for every paintbrush there are 5 rollers**.

1 mark

There are **12 paintbrushes** on the shelf.

How many **rollers** are there?

16

Write $\frac{15}{18}$ in its **simplest form**.

1 mark



17

Find the **mean** of these five numbers:

1 mark

12, 18, 14, 16, 20

18

Work out

1 mark

$$\frac{5}{7} \times \frac{1}{7}$$

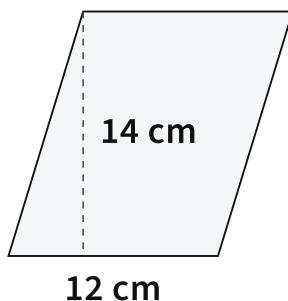
Give your answer as a fraction in its **simplest form**.



19

The diagram shows a parallelogram. The base and perpendicular height are in centimetres.

1 mark



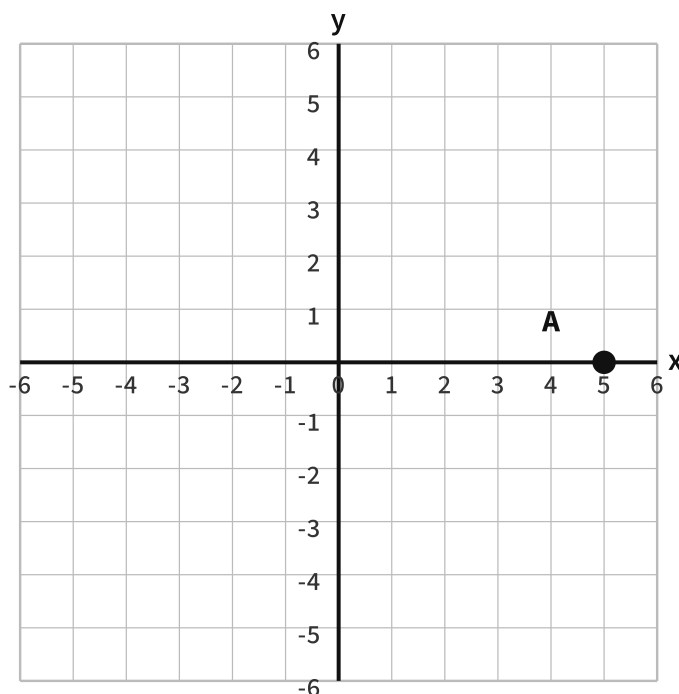
What is the **area** of the parallelogram?



20

Point **A** is plotted on the grid. Translate **A** by **1 unit to the left** and **1 unit up**.

1 mark

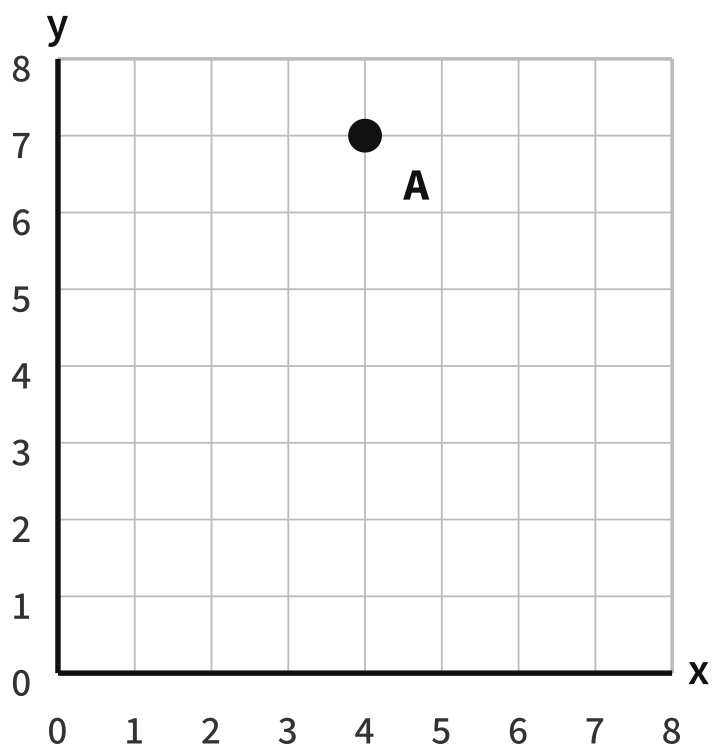


On the grid, mark the image of **A** after the translation and label it **A'**. In the answer space below, write the coordinates of **A'**.



21

1 mark



What are the coordinates of point A?



22

Work out

1 mark

$$\frac{5}{9} \div 4$$

Give your answer as a fraction in its **simplest form**.

23

Notepads cost **£5** each.

1 mark

What is the **total cost** of **10** notepads?



24

Maya estimates her answer to 37×36 by **rounding each number to the nearest 10**.

2 marks

What might her estimate be?



1.	Riverside Primary	1 mark	13.	75%	1 mark
2.	$\frac{1}{2}$	1 mark	14.	53°	1 mark
3.	Accurate rectangle 5 cm × 6 cm (full size, ± 2 mm); sides labelled.	2 marks	15.	60	1 mark
4.	140 cm ³	1 mark	16.	$\frac{5}{6}$	1 mark
5.	7,000 ml	1 mark	17.	16	1 mark
6.	0.57	1 mark	18.	$\frac{5}{49}$	1 mark
7.	6 cm	1 mark	19.	168 cm ²	1 mark
8.	47,000	1 mark	20.	(4, 1)	1 mark
9.	15 kg	1 mark	21.	(4, 7)	1 mark
10.	£4	1 mark	22.	$\frac{5}{36}$	1 mark
11.	40 and 44	2 marks	23.	£50	1 mark
12.	C, A, B	1 mark	24.	1,600	2 marks