MATHEMATICS

KEY STAGE 2 2005

TEST A **LEVELS 3–5**

CALCULATOR NOT ALLOWED

PAGE	MARKS
5	
7	
9	
11	
13	
15	
17	
19	
21	
TOTAL	
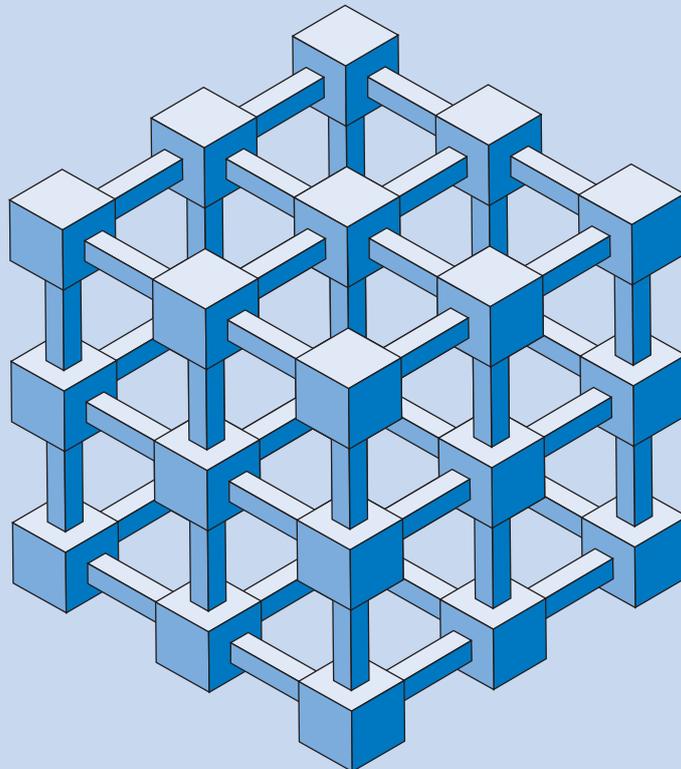
First Name

Last Name

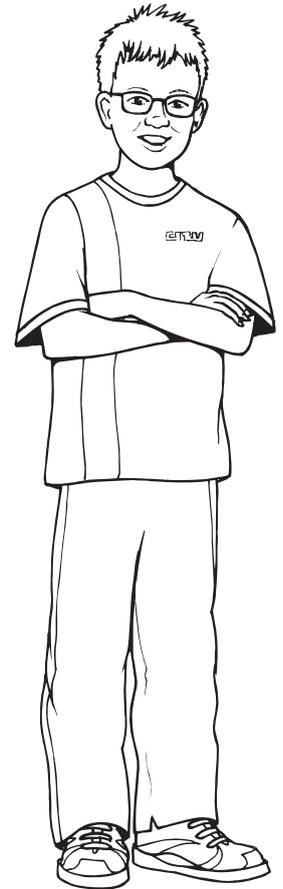**School**

Josh   Sapna   Robbie

Instructions

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

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 space on a page.

Some questions have an answer box like this:

Show your **working**. You may get a mark.

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

1 Draw lines to join **all the pairs** of number cards which have a **difference of 30**

One has been done for you.

100	180
150	170
200	70
250	330
300	220

1i

1ii

2 marks

2 Circle **three** numbers that add to make a **multiple of 10**
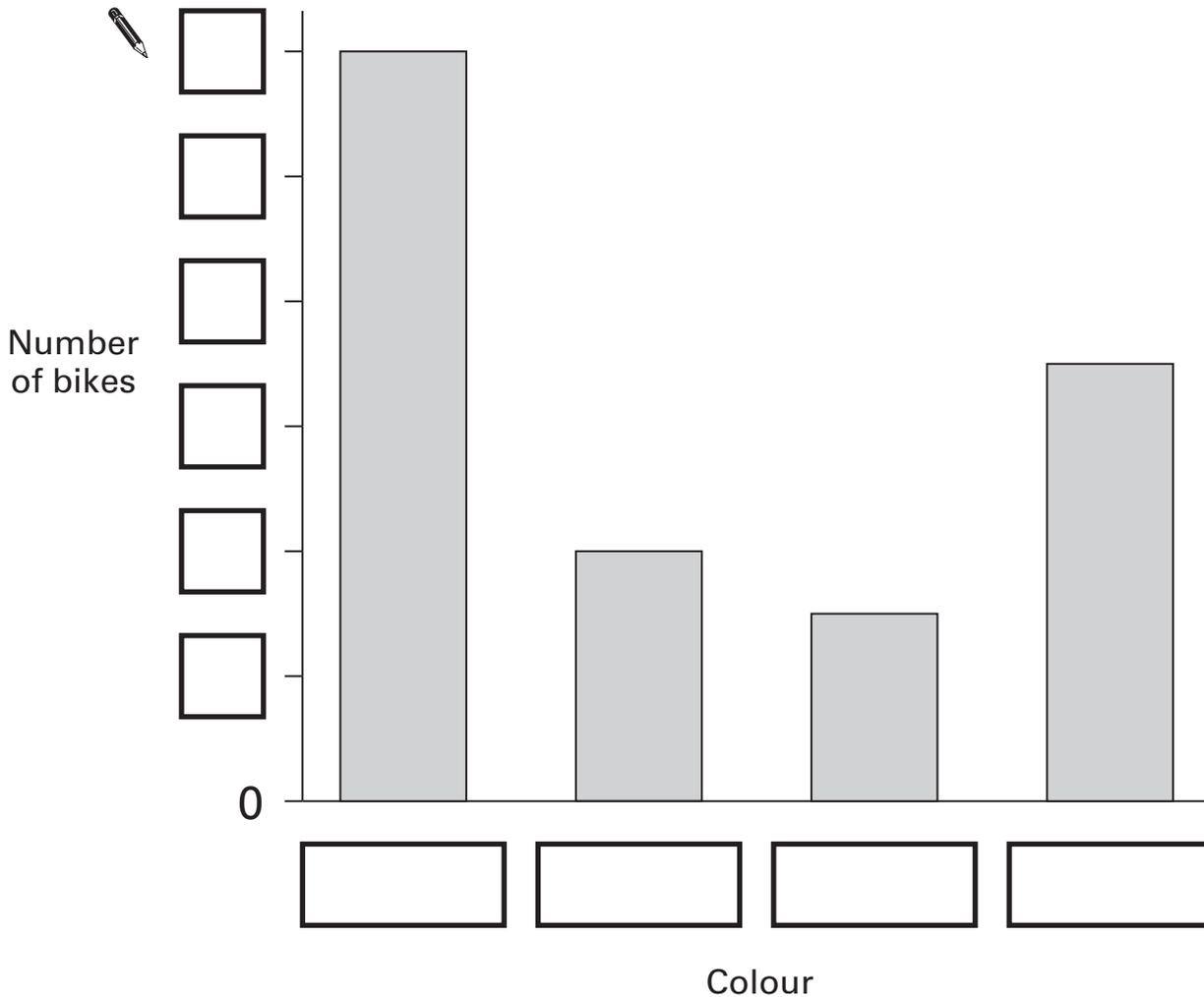
11   12   13   14   15   16   17   18   19

2

1 mark

3 Robbie collected information about the colours of some bikes.

Here are his results.

Colour	Number of bikes
green	4
red	7
blue	12
pink	3

This bar graph shows the information from the table.

Fill in **all** the missing labels.

Number of bikes

0

Colour

3a

1 mark

3b

1 mark

Total out of 5

4

These are the radio programmes one morning.

7:00	Music show
7:55	Weather report
8:00	News
8:15	Travel news
8:25	Sport
8:45	Holiday programme

Josh turns the radio on at 7:25am.

How many minutes does he have to wait for the Weather report?

minutes

4a

1 mark

The Holiday programme lasts for 40 minutes.

At what time does the Holiday programme finish?
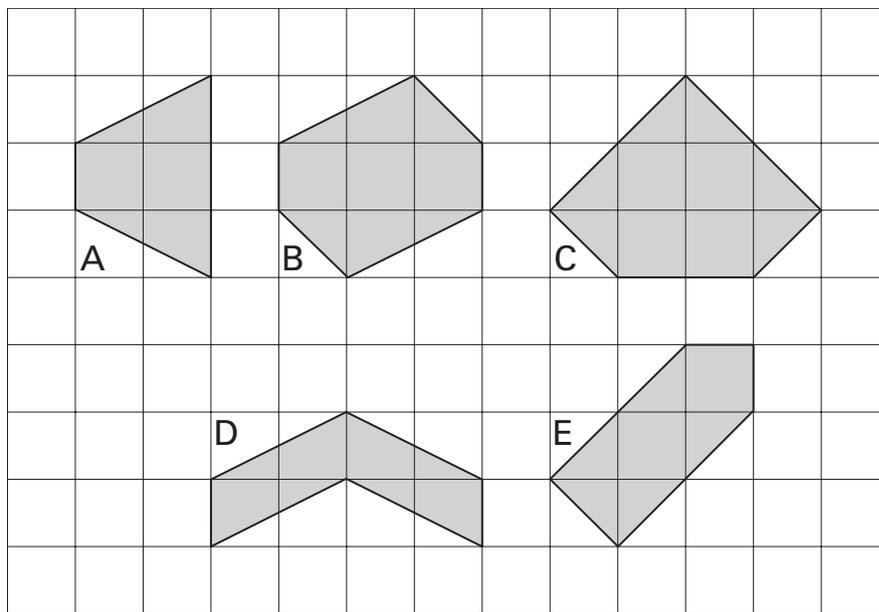
am

4b

1 mark

5 Calculate **56 ÷ 4**

6 Here are some shaded shapes on a square grid.

Write the letters of the **two** shapes which are hexagons.

.... and ....

Write the letters of the **two** shapes which have
right angles.

.... and ....

7 A shop sells candles.

plain candles	star candles	stripe candles
35p each	60p each	85p each

Sapna buys **4** star candles and **2** stripe candles.

How much does she pay **altogether**?

Show your **working**. You may get a mark.

Special offer
Buy 10 candles and get 50p off.

Josh buys **10** plain candles in the special offer.

How much does he pay for the 10 candles?

£

8 Calculate **1202 + 45 + 367**

9 Here are some digit cards.

| 2 | | 4 | | 6 | | 6 |

Write **all** the **three-digit** numbers, **greater than 500**, that can be made using these cards.

One has been done for you.

626 ....

....

10 Tick (✓) the **two** numbers which have a total of **10**

0.01   0.11   1.01

9.09   9.9   9.99

11 The diagram is made of squares.

What fraction of the diagram is shaded?
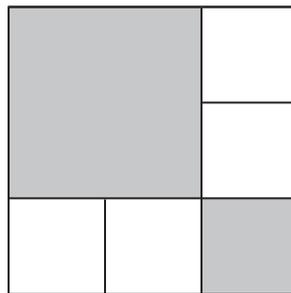
12 Write the correct sign **>**, **<** or **=** in each of the following.

$(10 + 5) - 9$ ⬜ $(10 + 9) - 5$
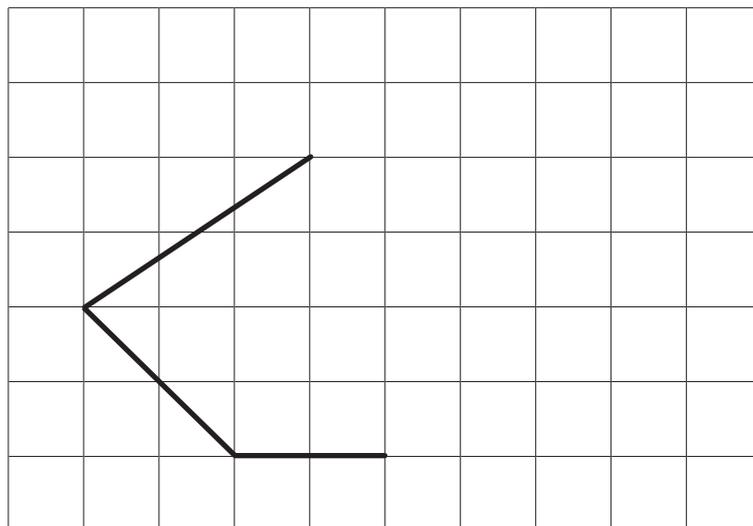
$3 \times (4 + 5)$ ⬜ $(3 \times 4) + 5$

$(10 \times 4) \div 2$ ⬜ $10 \times (4 \div 2)$

13 Here is part of a shape on a square grid.

Draw **two more** lines to make a shape which has a line of symmetry.

Use a ruler.

Total out of 5

14 Sapna makes up a game using seven cards.

Here are the cards.

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

Josh picks a card without looking.

If Josh picks an **odd** number then Sapna scores a point.

If Josh picks an **even** number then Josh scores a point.

Is this a fair game?
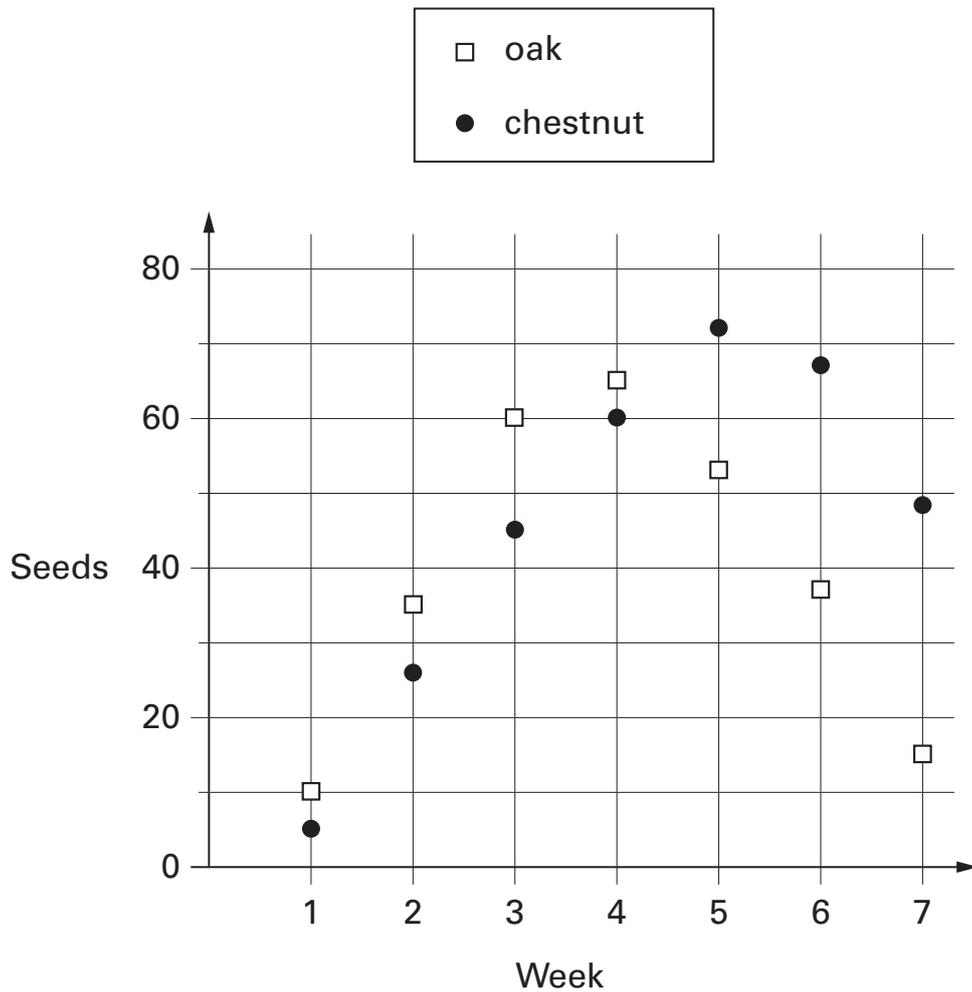Circle Yes or No.

Yes / No

Explain how you know.

....

....

....

14

1 mark

15 Class 6 count how many seeds they find under two trees.

They show the data in a graph.

☐ oak

● chestnut

Seeds

Week

How many seeds did they find in week 3 **altogether**?

🖉 **seeds**

15a

1 mark

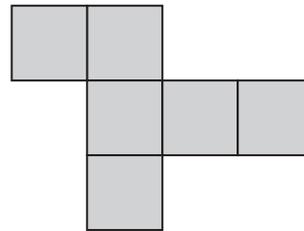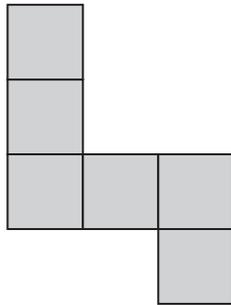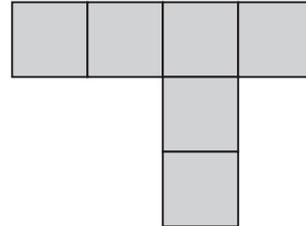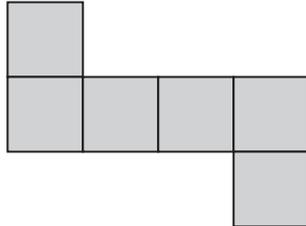In **how many weeks** did they find
more than 40 **chestnut** seeds?

🖉 **weeks**

15b

1 mark

Total out of 3

16 Here are four diagrams.

On each one put a tick (✓) if it is a net of a cube.
Put a cross (✗) if it is not.

16i

16ii

2 marks

17   Look at this star.

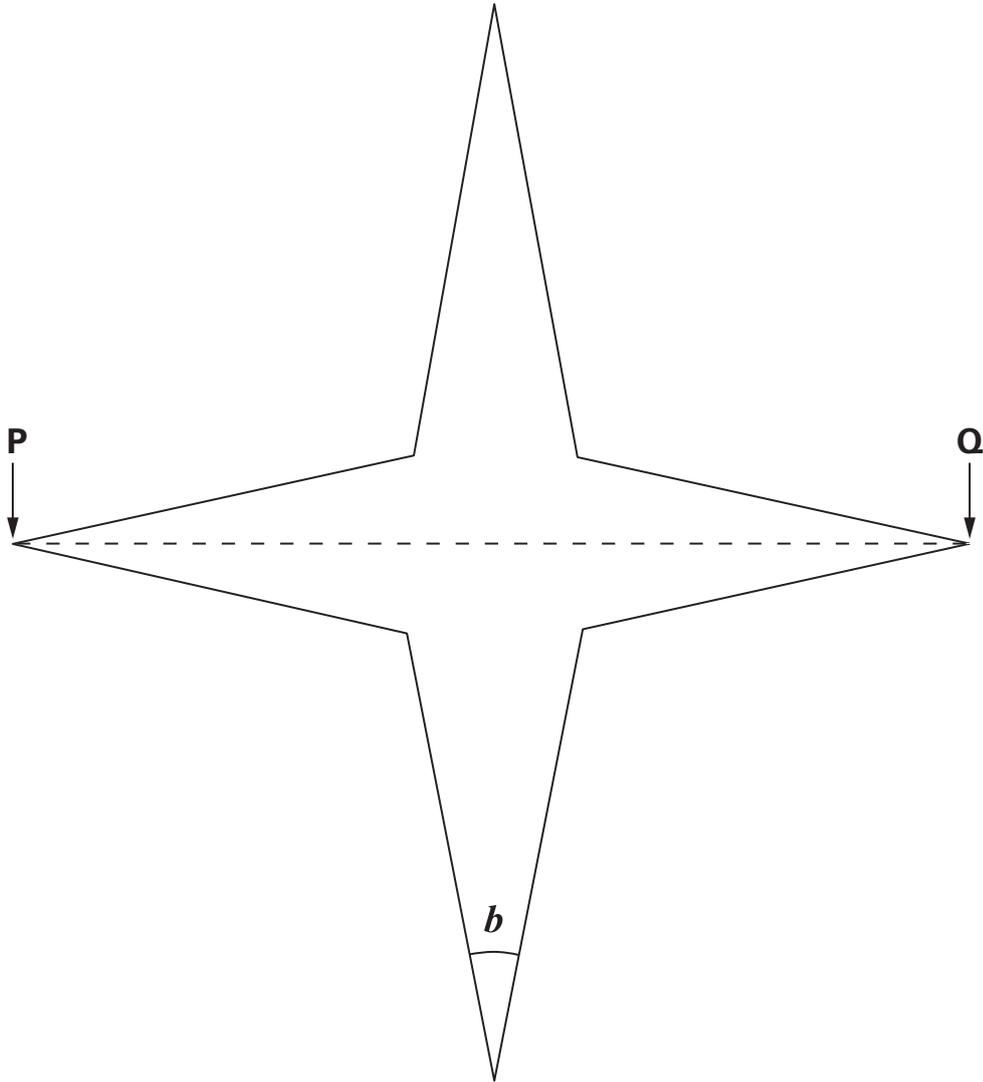**P**   **Q**

b

Use a ruler to measure **accurately** the **width** of the star, from **P** to **Q**.

Give your answer in **millimetres**.

✏️   **mm**

17a

1 mark

Use a protractor (angle measurer) to measure **angle b**.
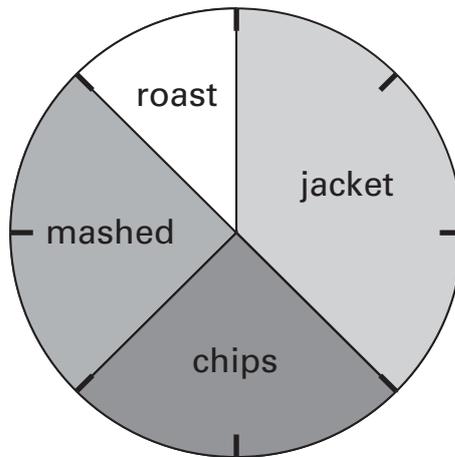
✏️   °

17b

1 mark

Total out of 4

18 This pie chart shows how the children in Class 6 best like their potatoes cooked.

32 children took part in the survey.

Look at the four statements below.

For each statement put a tick (✓) if it is **correct**.
Put a cross (✗) if it is **not correct**.

10 children like chips best. ☐

25% of the children like mashed potatoes best. ☐

$\frac{1}{5}$ of the children like roast potatoes best. ☐

12 children like jacket potatoes best. ☐

18i

18ii

2 marks

19 Find two **square numbers** that total 45

$$\boxed{} + \boxed{} = 45$$

20 Calculate **143 × 37**

Show your **working**. You may get a mark.

Total out of 5

21 Here are four statements.

> For each statement put a tick (✓) if it is **possible**.
> Put a cross (✗) if it is **impossible**.

A triangle can have 2 acute angles. ☐

A triangle can have 2 obtuse angles. ☐

A triangle can have 2 parallel sides. ☐

A triangle can have 2 perpendicular sides. ☐

21i ☐

21ii ☐

2 marks

22 Write these fractions in order of size starting with the smallest.

$$\frac{3}{4} \qquad \frac{3}{5} \qquad \frac{9}{10} \qquad \frac{17}{20}$$

☐ ☐ ☐ ☐

smallest

22 ☐

1 mark

23   **A** and **B** are two numbers on the number line below.

0

A   B
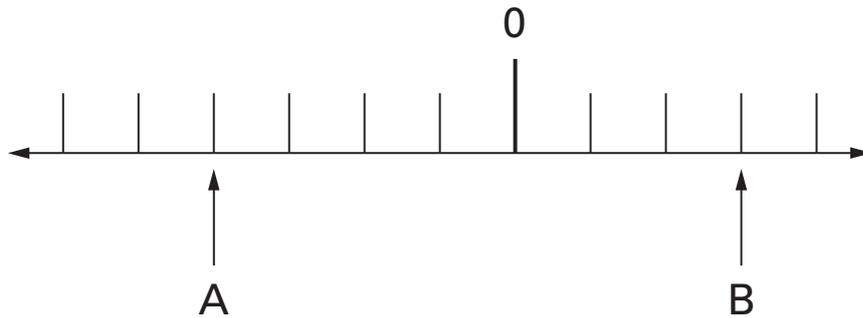
The **difference** between **A** and **B** is 140

Write the values of **A** and **B**.
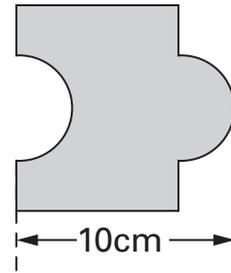
Show your **working**. You may get a mark.
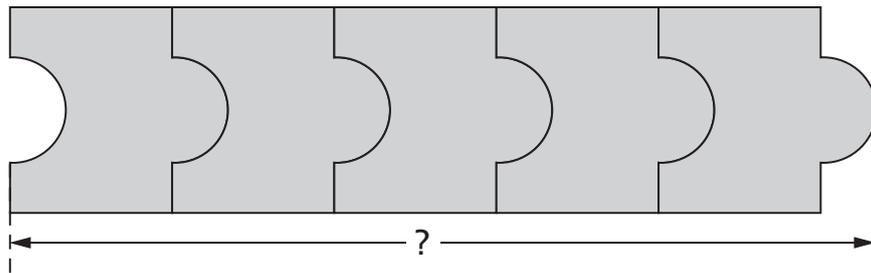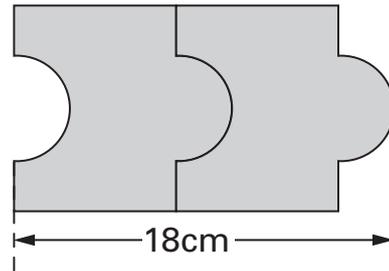
A = [   ]   B = [   ]

23i

23ii

2 marks

Total out of 5

24 Josh has some tiles.

Not actual size

Each tile is 10cm long.

←—— 10cm ——→

Two tiles fitted together are 18cm long.

←———— 18cm ————→

←———————— ? ————————→

Calculate the length of **five** tiles fitted together.

✎ Show your **working**. You may get a mark.

cm

24i

24ii

2 marks

End of test

Total out of 2