

Ma

KEY STAGE  
2

LEVELS  
3–5

Mathematics test

Test A

Calculator not allowed

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

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

School \_\_\_\_\_

DfE no. \_\_\_\_\_

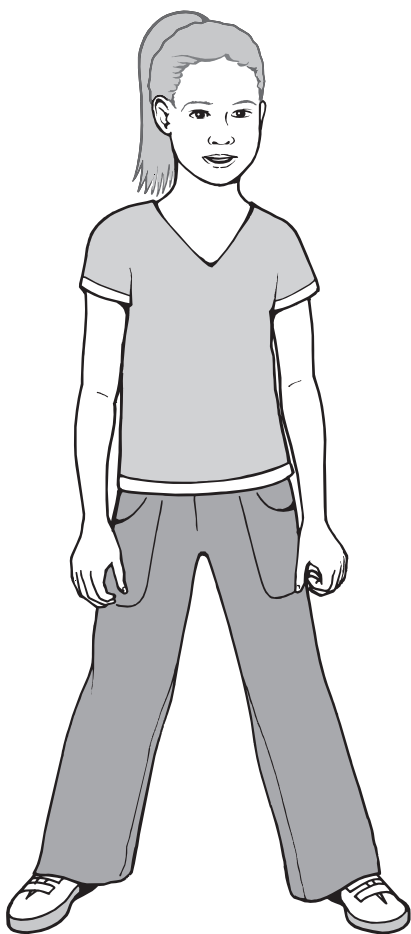


2011

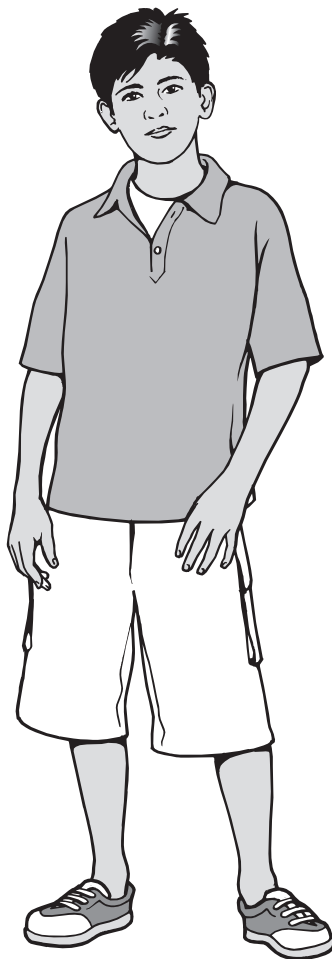
For marker's use only

Page	Marks
5	
7	
9	
11	
13	
15	
17	
19	
21	
23	
TOTAL	

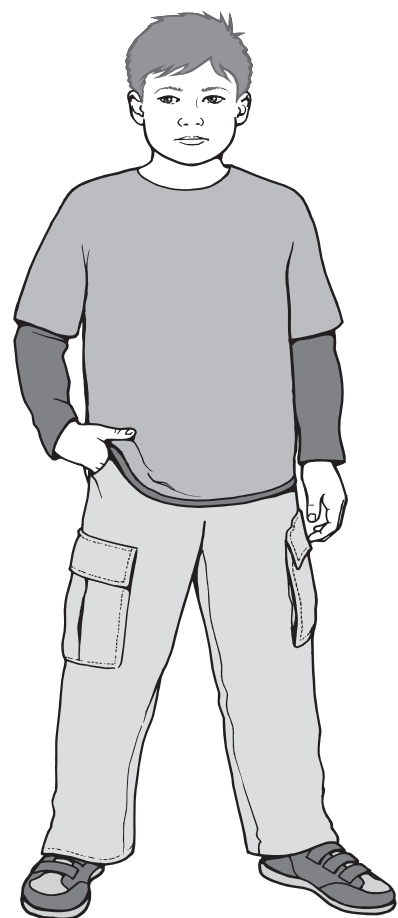
These three children appear in some of the questions in this test.



Holly



Dev



Joe

# 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.

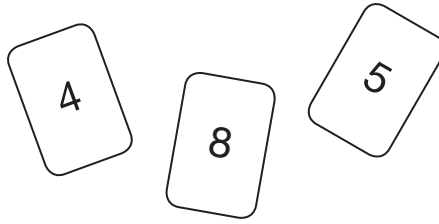
**Some questions have an answer box like this:**

A diagram showing a large rectangular box for an answer. To the left of the box is a label that says "Show your working" inside a hexagonal shape. A small pencil icon is positioned above the top-left corner of the large box. In the bottom-right corner of the large box, there is a smaller, empty rectangular box for the final answer.

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

1

Holly made a number using these digit cards.



The **hundreds** digit is greater than 4

Holly's number is **odd**.

What number did Holly make?




1

1 mark

2

Write one number from each circle to make this calculation correct.


 $\boxed{\phantom{000}} \times \boxed{\phantom{000}} - \boxed{\phantom{000}} = 0$

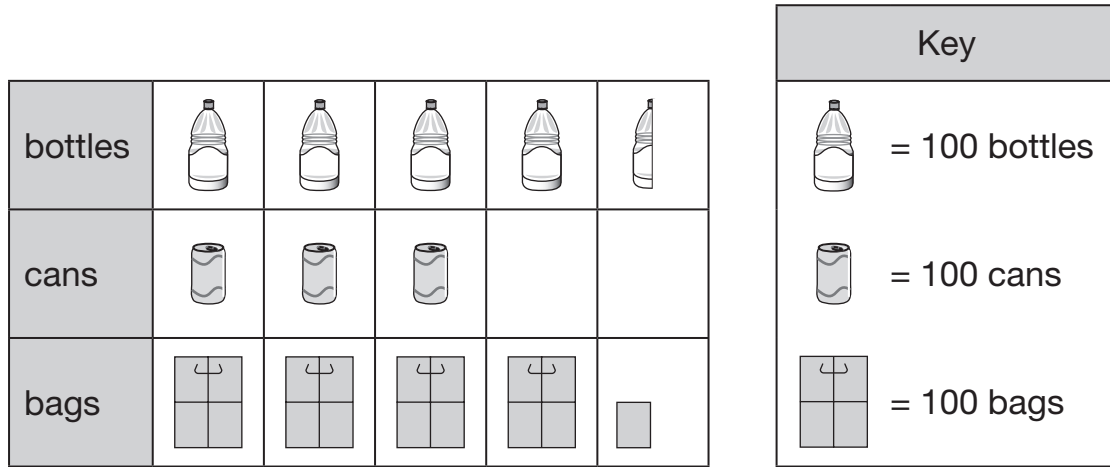
2

1 mark

3

Class 6 collect litter from a park.

This chart shows some of the litter they have collected so far.



How many bottles have Class 6 collected?



3a

1 mark

How many **more** bags than cans have they collected?

3b

1 mark

4

Dev has five coins.

He has £1.60 altogether.

Write what the five coins could be.



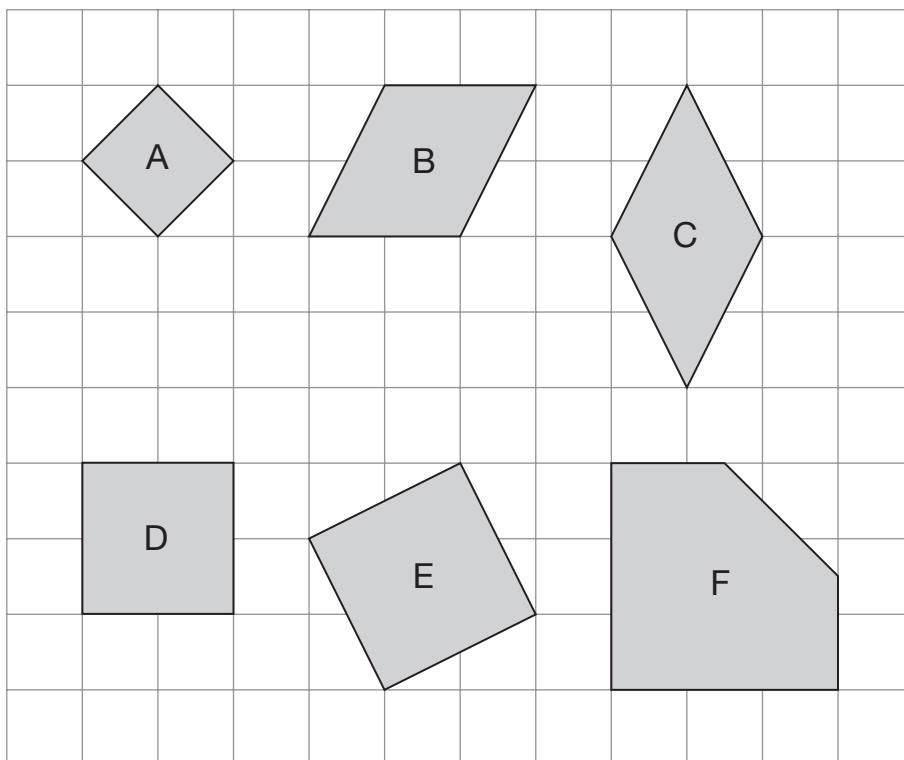
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4

1 mark

5

Here are six shapes on a square grid.



Write the letters of **all** the shapes that are squares.



\_\_\_\_\_

5

1 mark

**6**

Joe has a box of 72 chocolates.



He gives 18 of the chocolates to his friends.

How many chocolates are left in the box?



6a

1 mark

Holly has a box of mints.



She has 10 friends.

She gives them 5 mints each.

She has 13 mints left.

How many mints were in the box at the start?



6b

1 mark

7



Holly takes **half an hour** to walk from home to school.

She arrives at school at 8:25 am.

At what time did she leave home?




7a

1 mark



Dev leaves school at half past three.

He arrives home at ten past four.

How many minutes did it take him to get home?




7b

1 mark



**8**

The four sums below can be completed using only the numbers 1 to 8

Use each number **once** to complete the sums.

One sum has been done for you.

1    2    3    4    ~~5~~    ~~6~~    7    8

$$1 + \boxed{5} + \boxed{6} = 12$$

$$\text{✎ } 2 + \boxed{\phantom{00}} + \boxed{\phantom{00}} = 12$$

$$3 + \boxed{\phantom{00}} + \boxed{\phantom{00}} = 12$$

$$6 + \boxed{\phantom{00}} + \boxed{\phantom{00}} = 12$$

8i

8ii

2 marks

9

Here is part of a number sequence.

The numbers in the sequence increase by 25 each time.

50      75      100      125      ...

Circle **all** of the numbers below that will appear in the sequence.



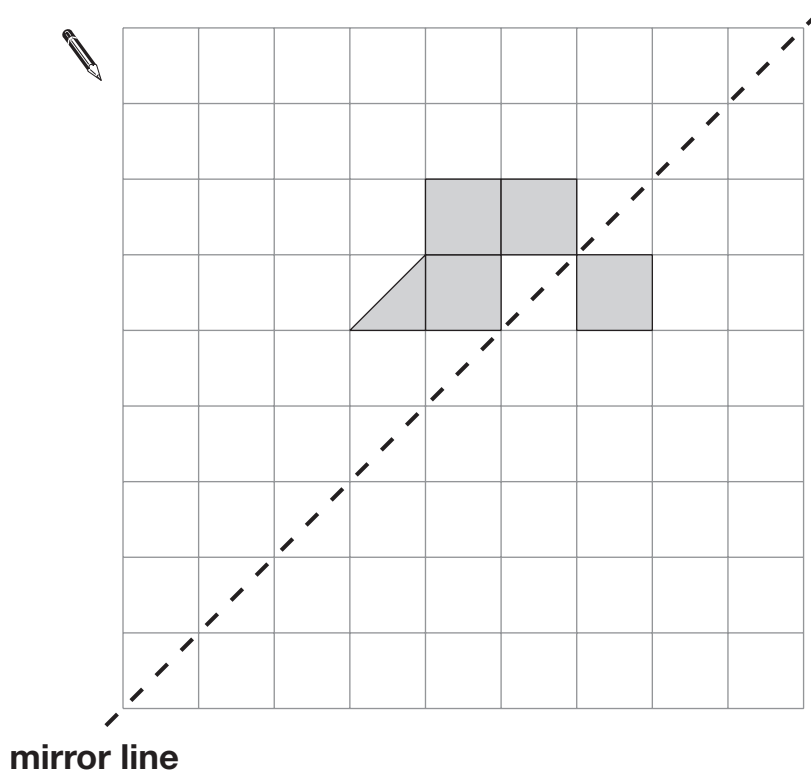
255      650      735      900      995

9

1 mark

10

Shade **two** squares and **one** triangle to make this design symmetrical about the mirror line.



10

1 mark

**11**Write the correct sign  $=$ ,  $>$  or  $<$  in each circle.

$9 \times 3$    $8 \times 4$

$9 - 3$    $8 - 4$

$9 + 3$    $8 + 4$

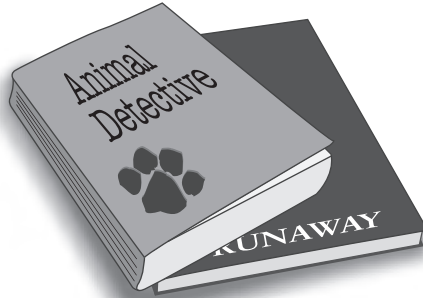
$9 \div 3$    $8 \div 4$

11i

11ii

2 marks

12



Dev and Joe each buy a book.

Dev pays with a £5 note and gets £1.05 change.

Joe's book costs £7

How much **more** does Joe's book cost than Dev's book?



Show  
your  
working

£

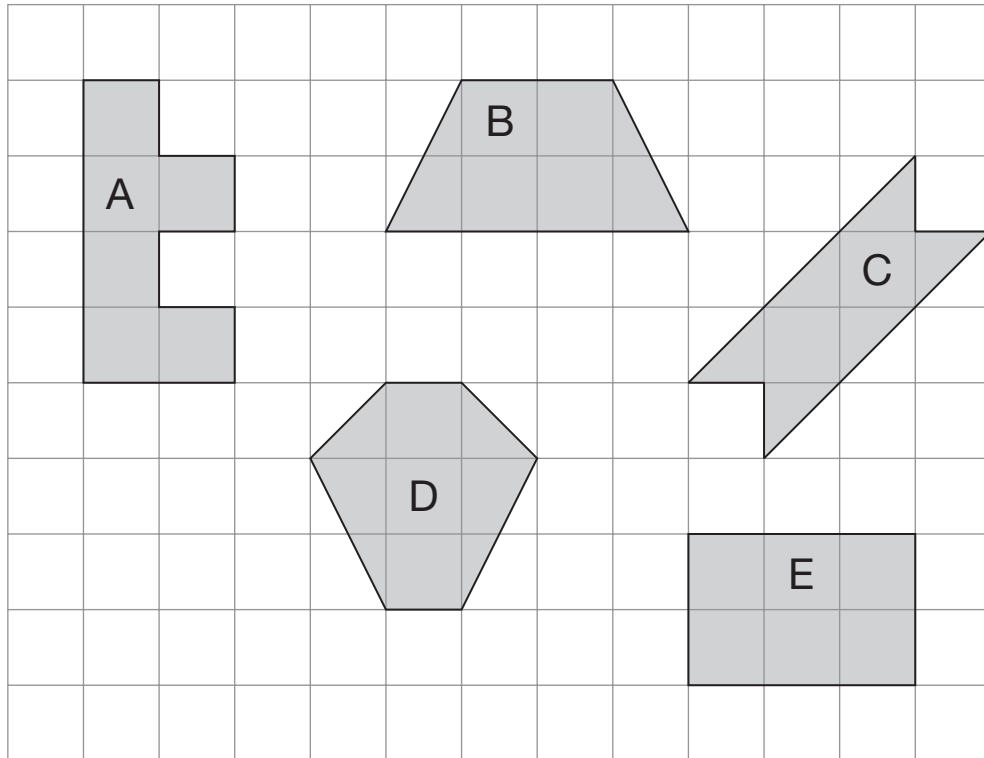
12i

12ii

2 marks

**13**

Here are some shapes on a 1 cm square grid.

What is the **perimeter** of shape A?
 cm

13a

1 mark

Write the letter of the shape that has the **smallest area**.

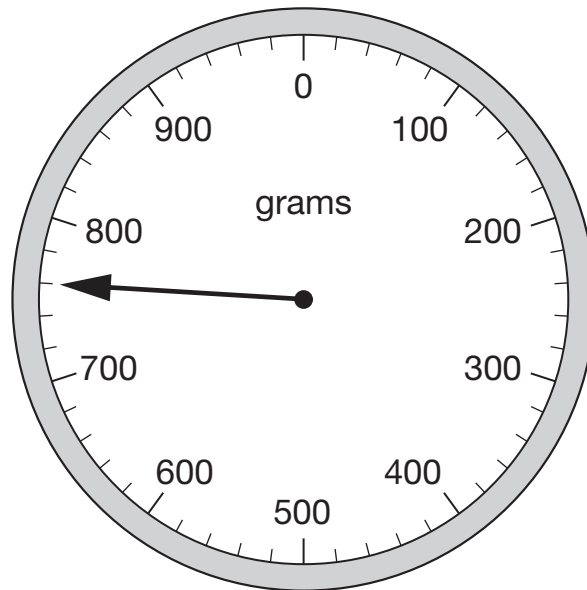

13b

1 mark

**14**

Joe places some apples on a weighing scale.

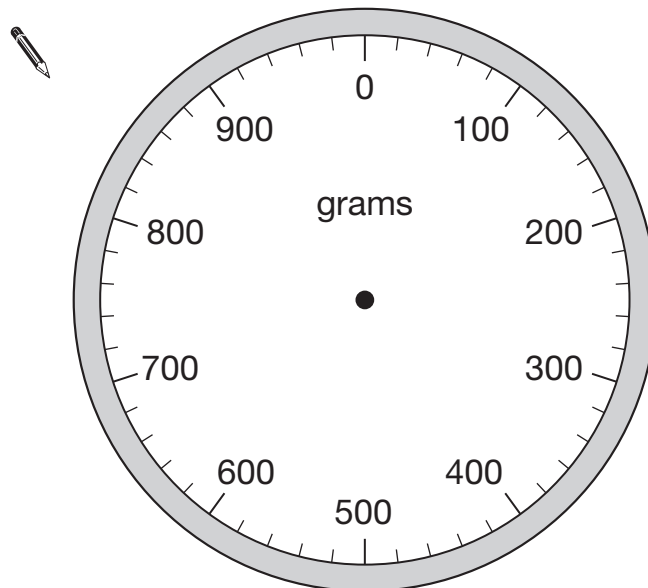
The pointer shows the mass of the apples.



He takes away one apple.

The mass goes down by 120 grams.

Draw the pointer in its new position on the scale below.



14

1 mark

15



Holly says,

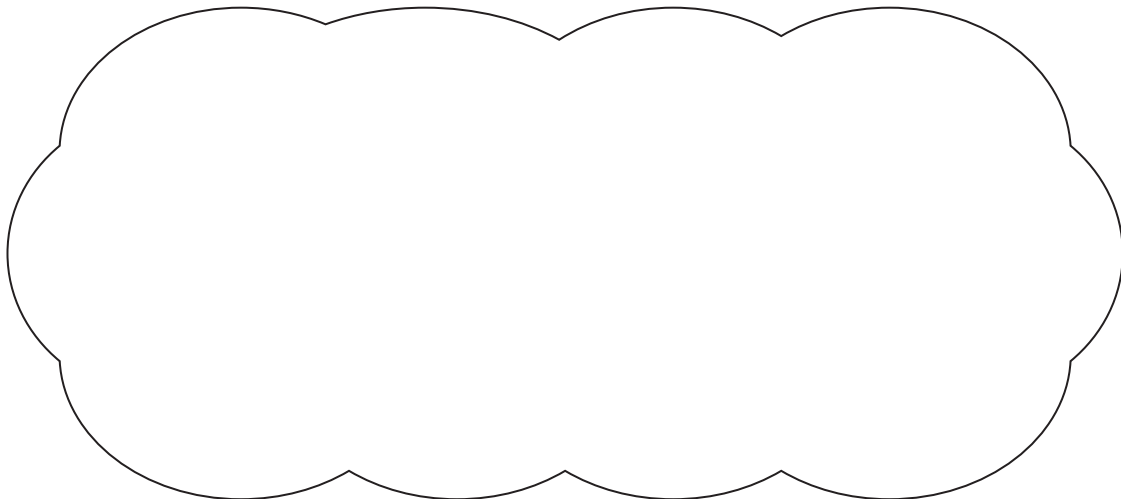
***‘One-third of this shape is shaded’.***

Is Holly correct?  
Circle **Yes** or **No**.



Yes / No

Explain how you know.

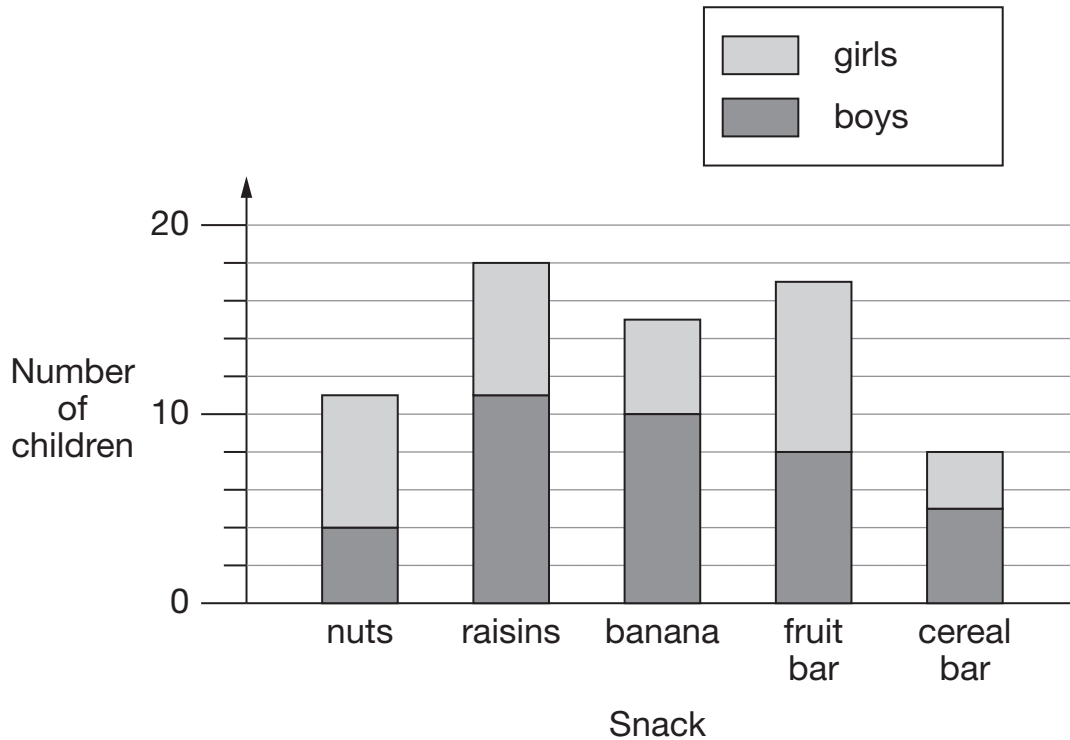


15

1 mark

**16**

This chart shows the favourite snacks of some boys and girls.



**How many** snacks were chosen by more girls than boys?




16a

1 mark

**How many more** boys than girls chose raisins?




16b

1 mark

Which snack was chosen by twice as many boys as girls?




16c

1 mark



17

Calculate  $3.81 + 18.3$ 

17

1 mark

18

Dev has three discs.

Each disc has a 7 on one side  
and an 8 on the other side.



He spins all the discs and adds the three scores together.

How many **different totals** can he get using the three discs?



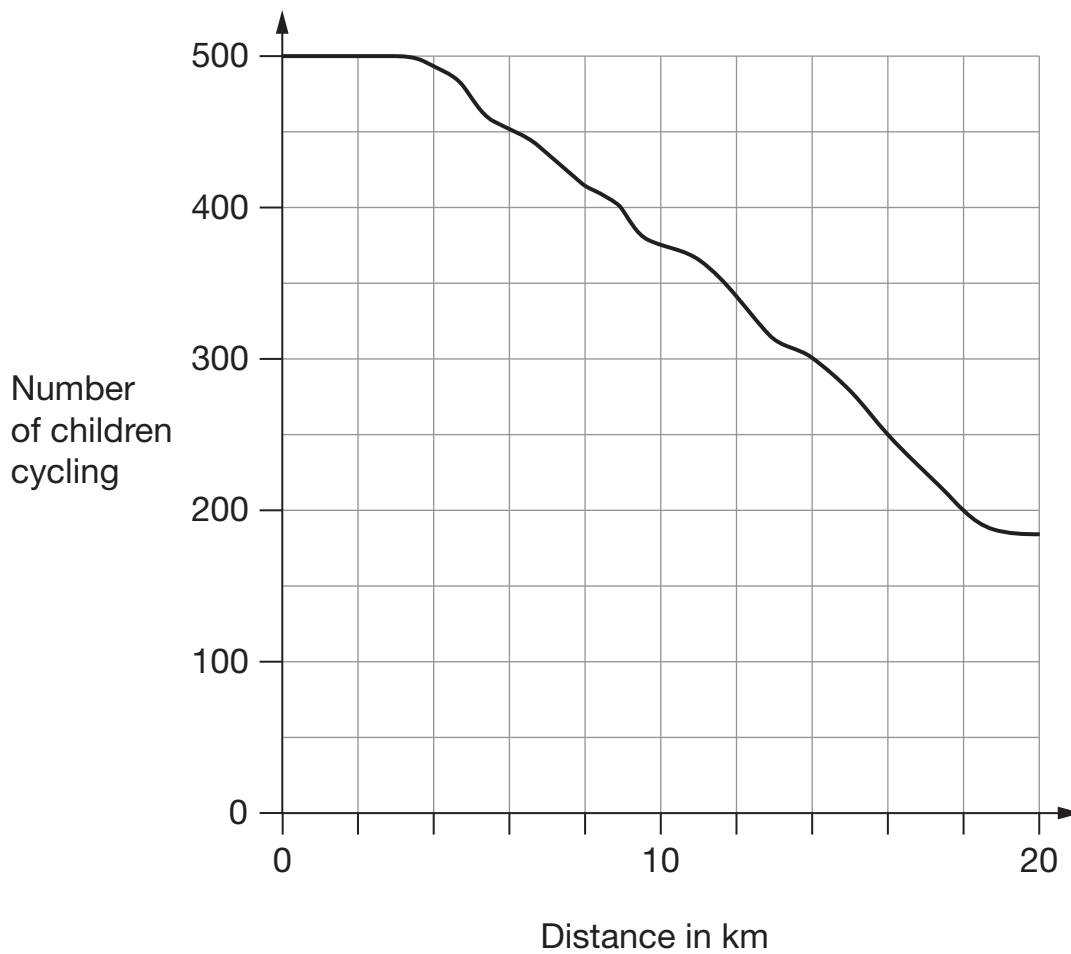
18

1 mark

**19**

500 children started a 20 kilometre sponsored cycle ride.

This graph shows how far they cycled.



At what distance were exactly half of the children still cycling?


 km

19a

1 mark

Estimate how many children completed the 20 kilometre cycle ride.




19b

1 mark

**20**

Here are five number cards.

0.47

10

100

1000

4.07

Use **four** of the cards to complete these calculations.

47

 $\div$  $=$  $\times$  $=$ 

40.7

20

1 mark

**21**Calculate **544  $\div$  32**Show  
your  
working

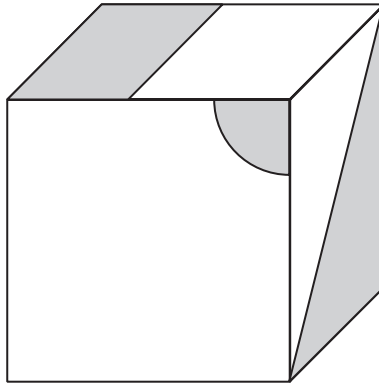
21i

21ii

2 marks

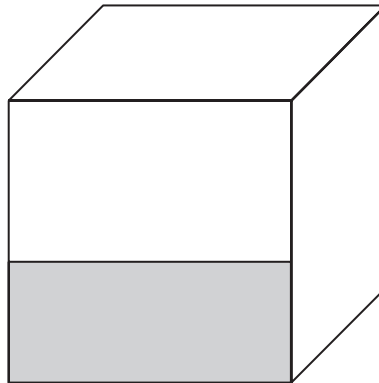
22

This cube has shapes drawn on three of its faces.



The cube is turned to look like this.

Draw and shade the missing shapes.



22a

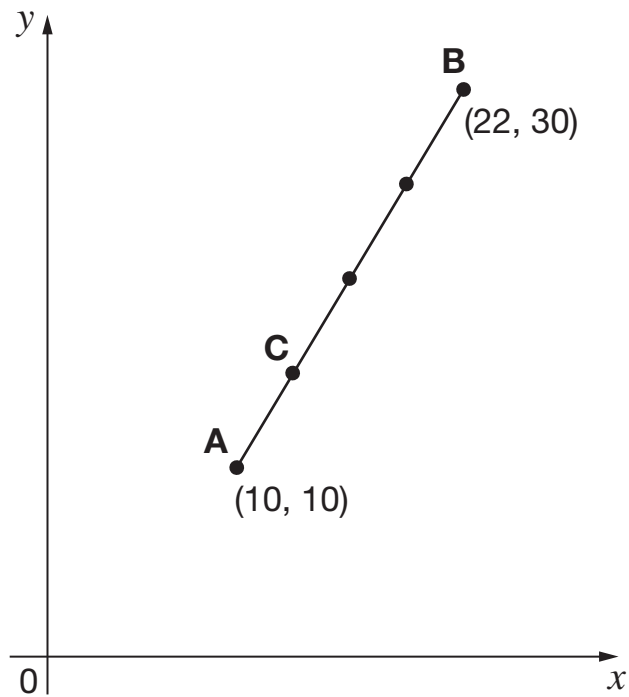
1 mark

22b

1 mark

**23**

**A** and **B** are joined by a straight line on coordinate axes.



The dots on the line are equally spaced.

What are the coordinates of **C**?



**C** is

(                      ,                      )
---

23a

1 mark

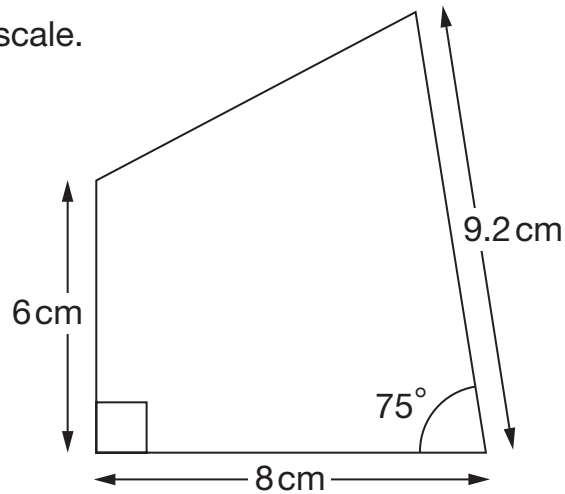
23b

1 mark

**24**

Here is a sketch of a quadrilateral.

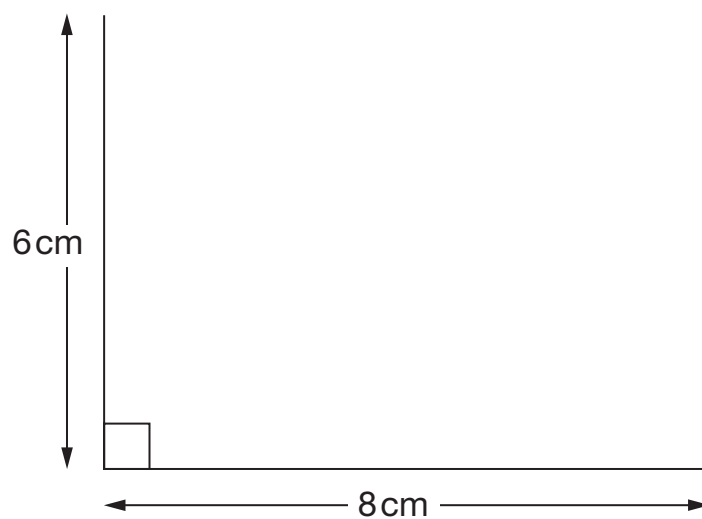
It is not drawn to scale.



Draw the full-size quadrilateral **accurately** below.

Use a protractor (angle measurer) and a ruler.

Two of the lines have been drawn for you.



24i

24ii

2 marks

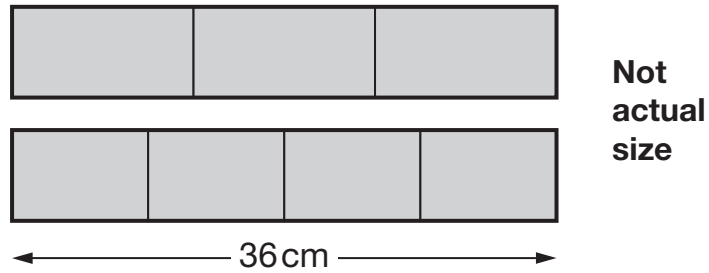
**25**

Joe has two strips of card.

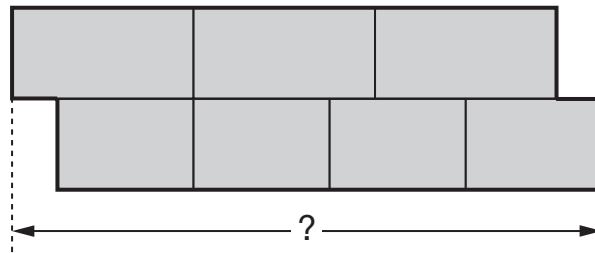
Each strip is 36 centimetres long.

One strip is divided into three equal parts.

The other strip is divided into four equal parts.



Joe uses the two strips to make this shape.



What is the total length of Joe's shape?



Show  
your  
working

cm

25i

25ii

2 marks

