Ma

KEY STAGE 2

LEVELS 3–5

2009

Mathematics test

Test A

Calculator **not** allowed

First name _____

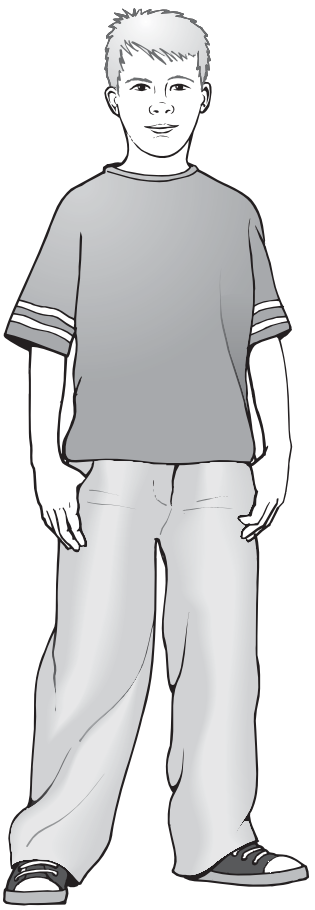
Last name _____

School _____

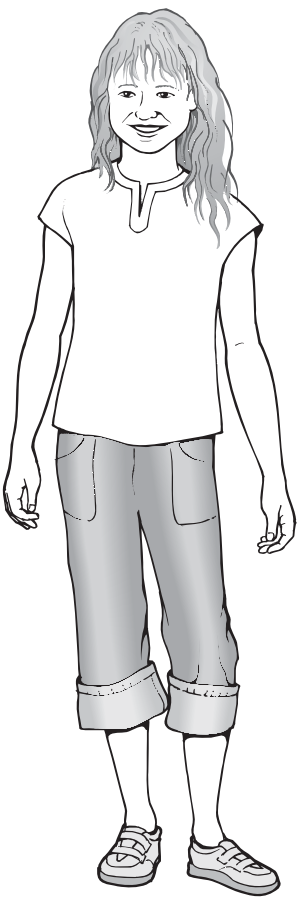
For marker's use only

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.



Stefan



Lara

Amir

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:

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

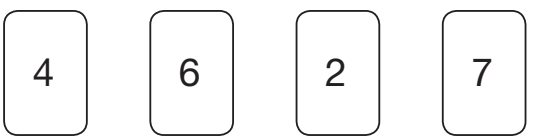
1 Circle the time that is 30 minutes **before** midnight.

12:30 am 12:30 pm

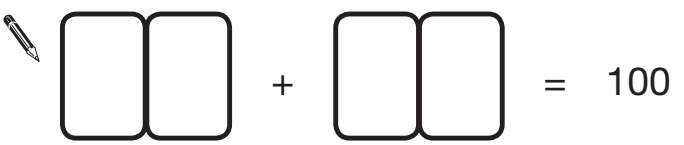
11:30 am 11:30 pm 3 am

1 mark

2 Here are four digit cards.



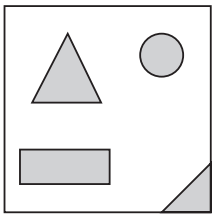
Use all four digit cards to make this sum correct.



2

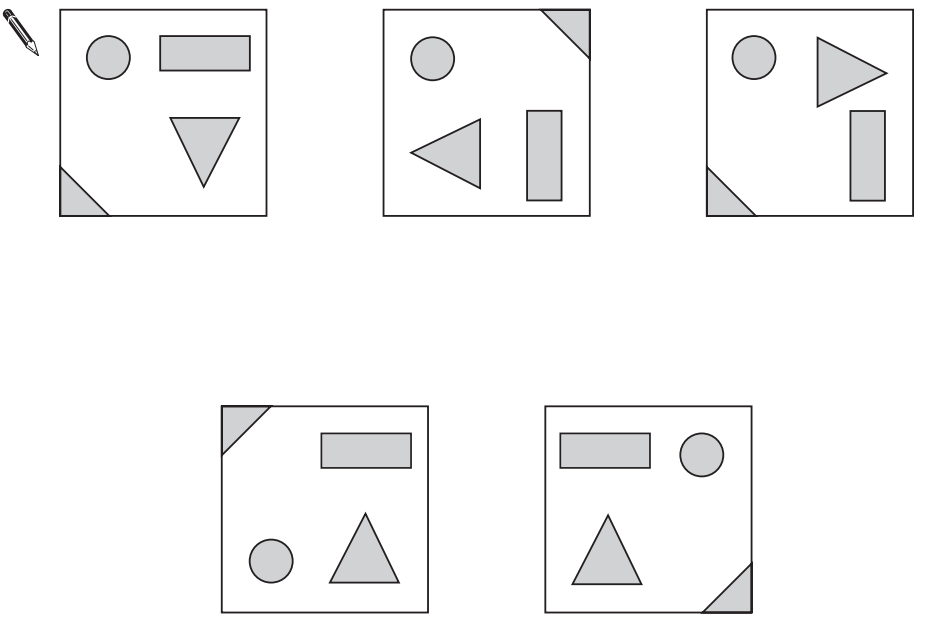
1 mark

3 Stefan makes this design on a square tile.



He turns the tile.

Put a tick (✓) on the tile below that has the same design as Stefan's tile.



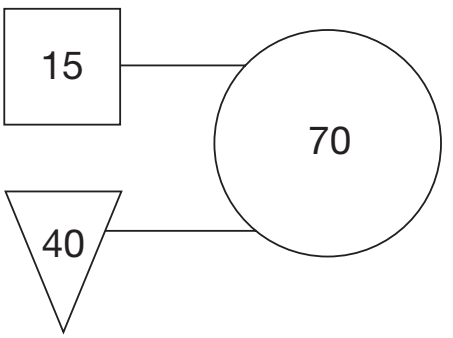
3

1 mark

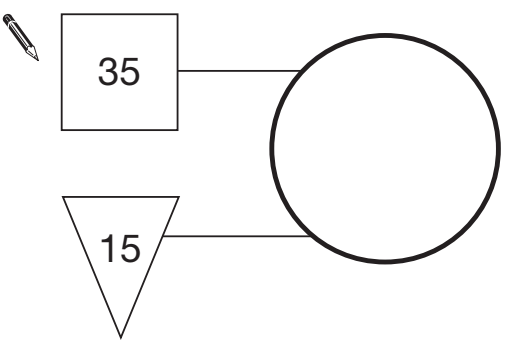
Total out of 3 _____

4 In this diagram the rule is

'double the number in the square and add the number in the triangle to make the number in the circle'.

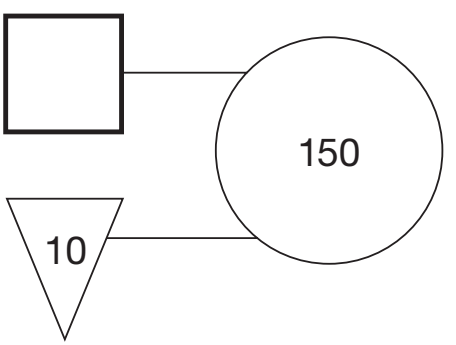


Use the same rule to write in the missing numbers below.



4a

1 mark



4b

1 mark

5 This table shows where 100 people went on holiday in 2007 and 2008.

	2007	2008
Spain	18	26
England	38	17
Scotland	21	13
Wales	19	28
USA	4	16

Look at the table.

How many **more** people went to Wales than to Scotland in 2008?

5a

1 mark

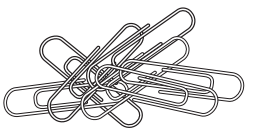
Which country had the **greatest increase** in visitors from 2007 to 2008?

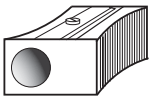
5b

1 mark

Total out of 4 _____

6





One battery weighs the same as **60** paperclips.

One pencil sharpener weighs the same as **20** paperclips.

How many pencil sharpeners weigh the same as one battery?

6a

1 mark

How many paperclips weigh the same as **2** batteries and **4** pencil sharpeners together?

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

6bi

6bii

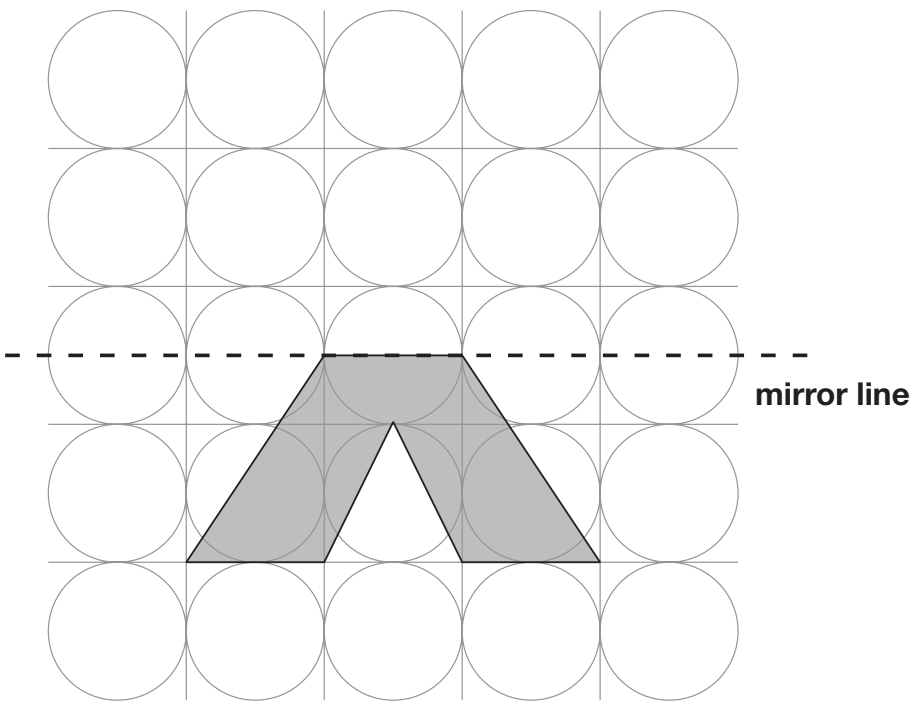
2 marks

7 Calculate **48 ÷ 3**

7

1 mark

8 Draw the reflection of the shaded shape in the mirror line.



8

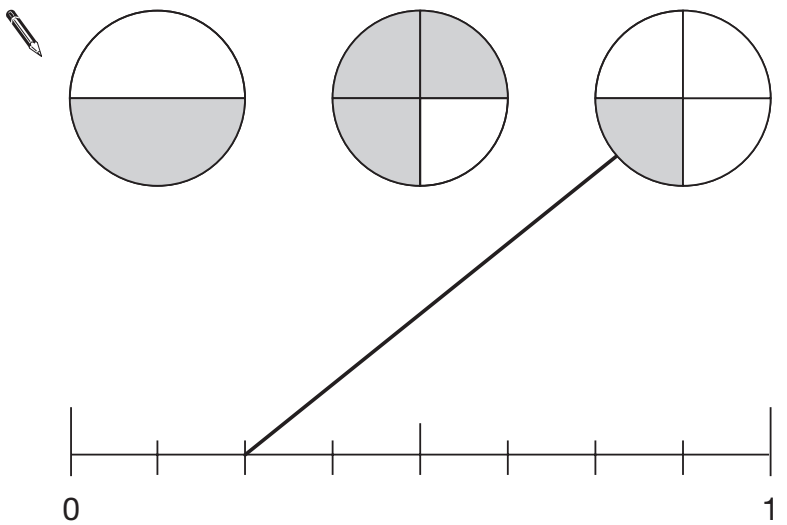
1 mark

Total out of 5 _____

9 A fraction of each shape is shaded.

Match each fraction to the correct place on the number line.

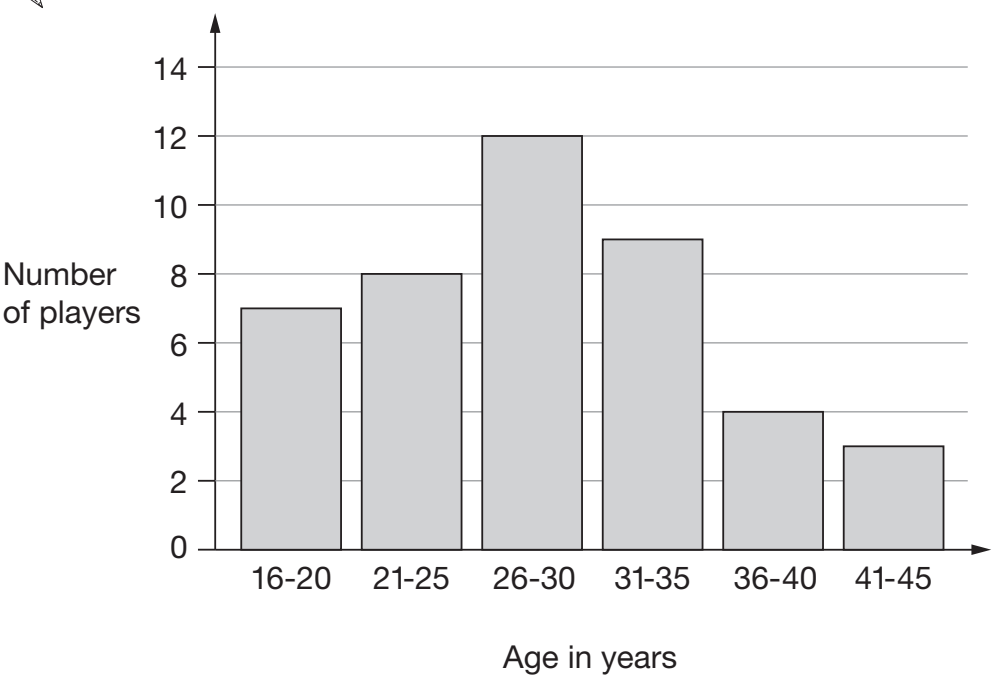
One has been done for you.



9

1 mark

10 This graph shows the age of players at a football club.



How many players are aged 30 or younger?

10a

1 mark

A player aged 36 and a player aged 39 join the club.

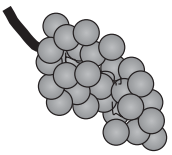
Add this information to the graph above.

10b

1 mark

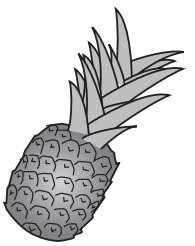
Total out of 3 _____

11 Amir and Lara buy some fruit.



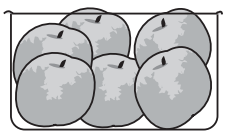
grapes

£2.50
for 1 kilogram



pineapples

£1.40
each



peaches

£1.99
for a box

Amir buys 2 pineapples and a box of peaches.

How much does he pay?

£ 11a

1 mark

Lara buys half a kilogram of grapes and one pineapple.

How much change does she get from £5?

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

£ 11bi 11bii

2 marks

12 Amir says,

'All numbers that end in a 4 are multiples of 4'.

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

Yes / No

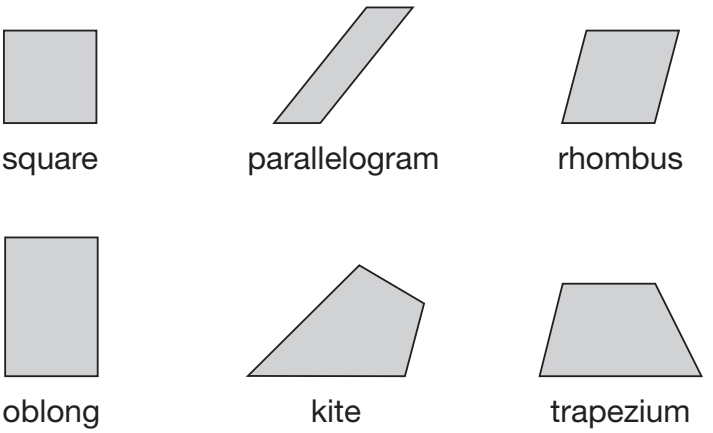
Explain how you know.

12

1 mark

Total out of 4 _____

13 Here are six quadrilaterals with their mathematical names.



Lara chooses one of the quadrilaterals.

She says,

'It has two acute angles.
All four sides are the same length'.

Which quadrilateral did Lara choose?

13a

1 mark

Stefan chooses one of the quadrilaterals.

He says,

'It has more than one obtuse angle.
It has no parallel sides'.

Which quadrilateral did Stefan choose?

13b

1 mark

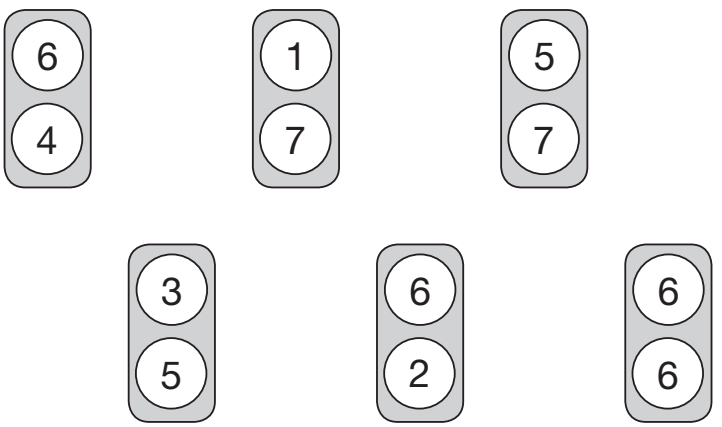
14 Circle two decimals that have a difference of 0.5

0.2 0.25 0.4 0.45 0.6 0.75

14

1 mark

15 Each of these cards has two numbers on it.



Stefan chooses one card without looking.

He adds the two numbers together.

What is the **most likely** total of the numbers on his card?

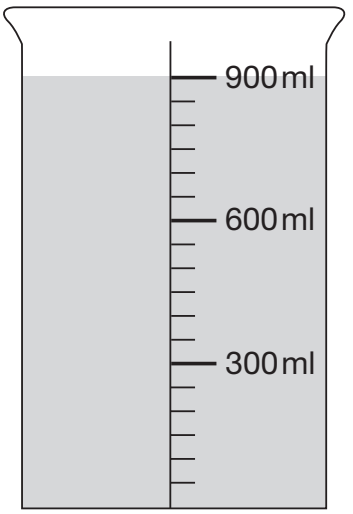
15

1 mark

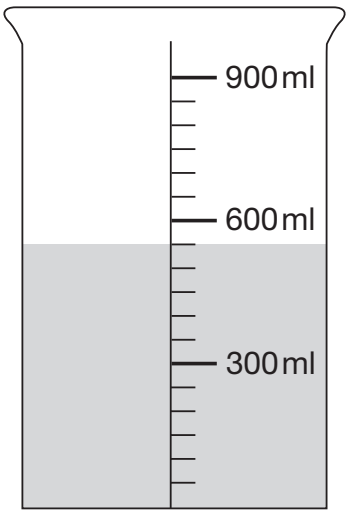
Total out of 4

16

This container has 900 millilitres of water in it.



Lara pours out some water so that it looks like this.



How much water has Lara poured out?

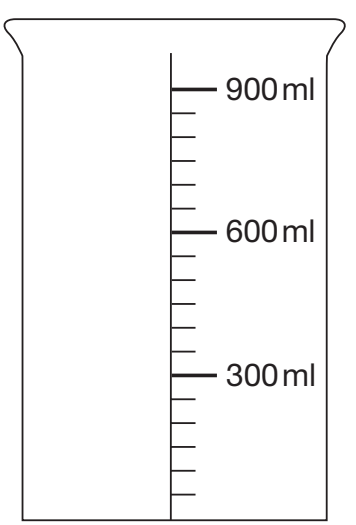
ml

16a

1 mark

Then she pours out another 150ml of water.

Draw an arrow (→) to show the new level of the water.

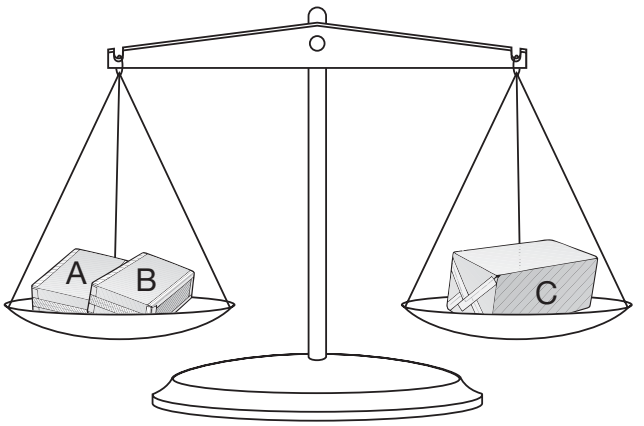


16b

1 mark

17 Amir has three parcels.

Parcels A and B together weigh the same as parcel C.



The three parcels weigh 800 grams altogether.

Parcel A weighs 250 g.

How much does parcel B weigh?

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

g

17i

17ii

2 marks

Total out of 4 _____

18 Write **all** the numbers between 50 and 100 that are **factors of 180**

18i _____

18ii _____

2 marks

19 Calculate **602 × 57**

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

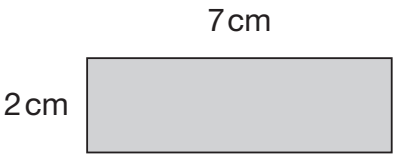
19i _____

19ii _____

2 marks

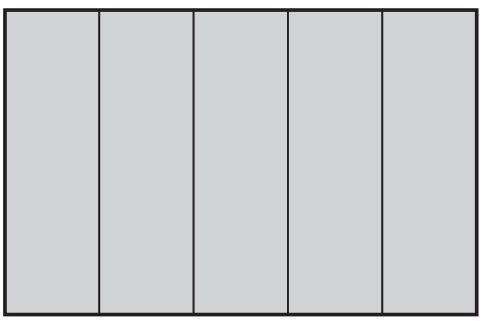
20 Lara has some identical rectangles.

They are 7 centimetres long and 2 centimetres wide.



Not actual size

She uses **five** of her rectangles to make the large rectangle below.



What is the **perimeter** of the large rectangle?

cm

20a

1 mark

What is the **area** of the large rectangle?

cm^2

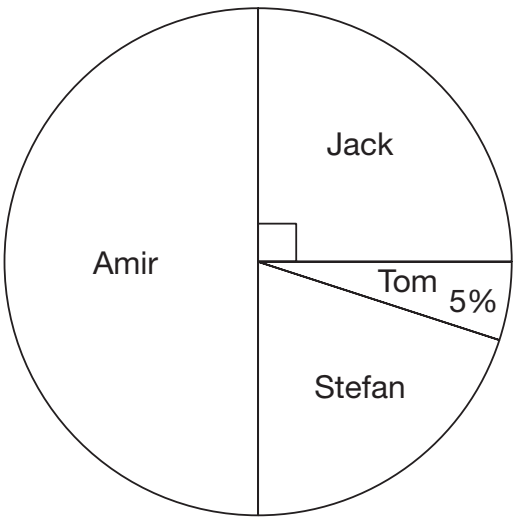
20b

1 mark

Total out of 6 _____

21 **40** children predicted who would win the boys' race at sports day.

This pie chart shows their predictions.



What percentage of the children predicted that Stefan would win?

%

21a

1 mark

10 children predicted the winner of the race **correctly**.

Who won the race?

Explain how you know.

21b

1 mark

22 Two of the fractions below are **equivalent**.

Circle them.

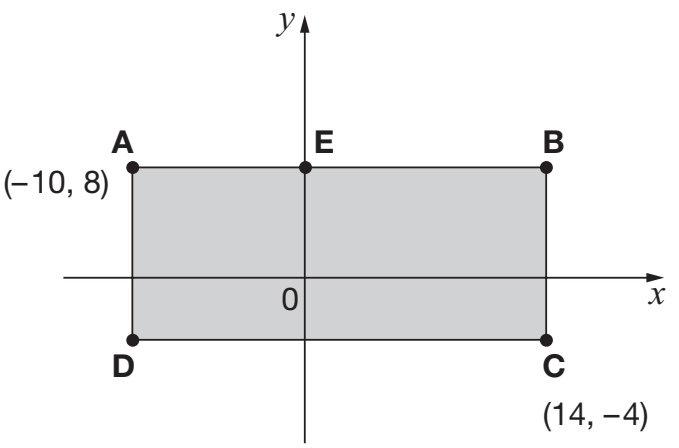
$\frac{2}{3}$ $\frac{6}{10}$ $\frac{9}{12}$ $\frac{10}{15}$ $\frac{16}{20}$

22

1 mark

23 **ABCD** is a rectangle drawn on coordinate axes.

The sides of the rectangle are parallel to the axes.



What are the coordinates of **D** and **E**?

D is (,)

23a

1 mark

E is (,)

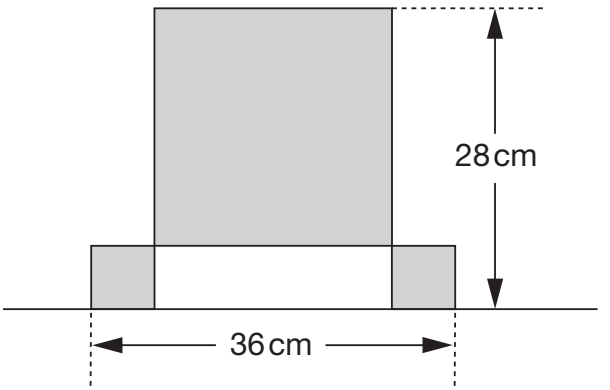
23b

1 mark

Total out of 5

24 This design has **one large square** and **two identical small squares**.

The design measures 36 centimetres by 28 centimetres.



Not actual size

Calculate the length of a side of the **large** square.

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

cm

24i

24ii

2 marks

End of test

Total out of 2 _____

QCA/09/3773 (Pupil pack)
QCA/09/3768 (Mark schemes pack)