Ma

KEY STAGE 2

LEVELS 3–5

2010

Mathematics test

Test B

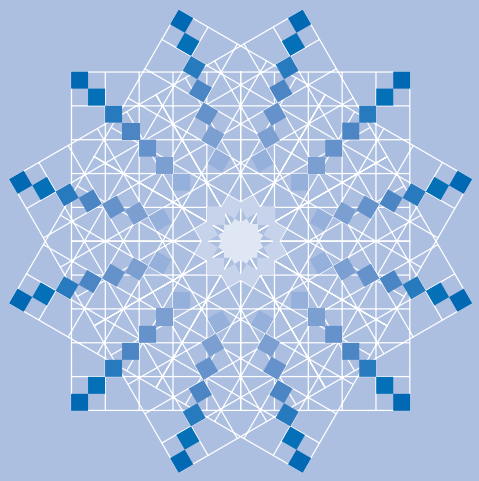
Calculator allowed

First name _____

Last name _____

School _____

DCSF no. _____



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.

Sarah

Amy

Liam

Instructions

You **may** 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.

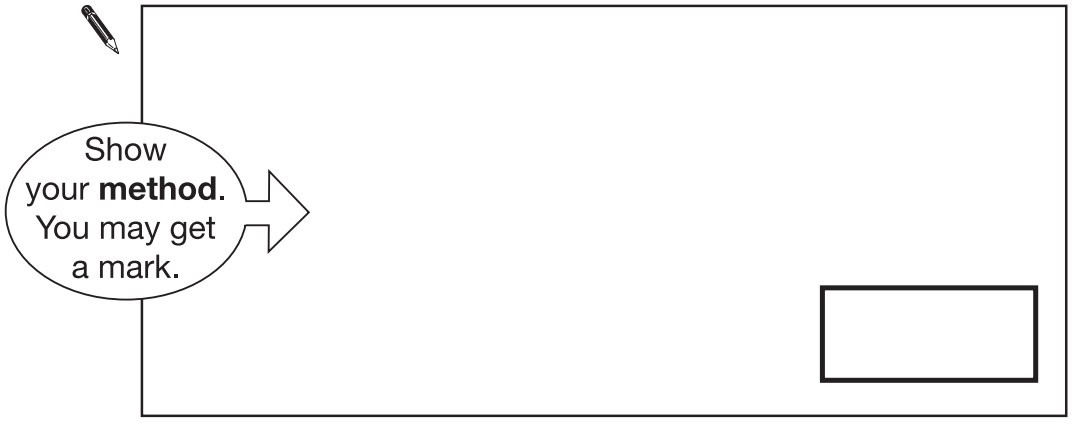
If you finish before the end, **go back and check your work**.

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.

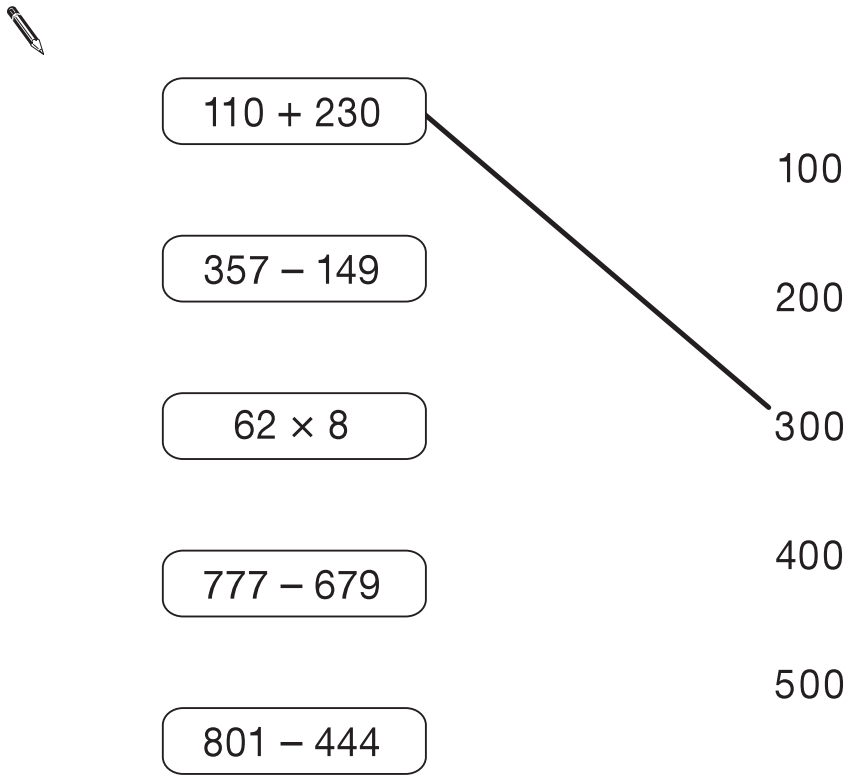
Some questions have an answer box like this:



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

1 Join each of these calculations to the number that is **nearest** to the correct answer.

One has been done for you.



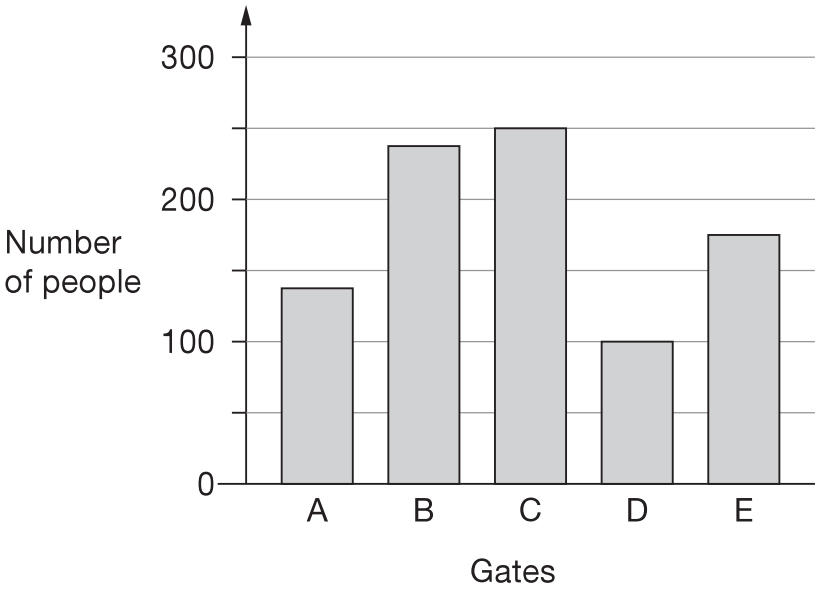
1i _____

1ii _____

2 marks

2 There are five entry gates at an open air concert.

This bar chart shows how many people went through each gate.



How many **more** people went through gate C than gate D?

2a

1 mark

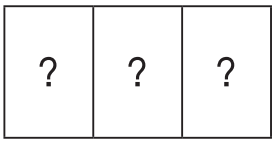
How many gates had **fewer than 150** people go through?

2b

1 mark

Total out of 4 _____

3 What's my number?



It is a three-digit number.

All the digits are odd.

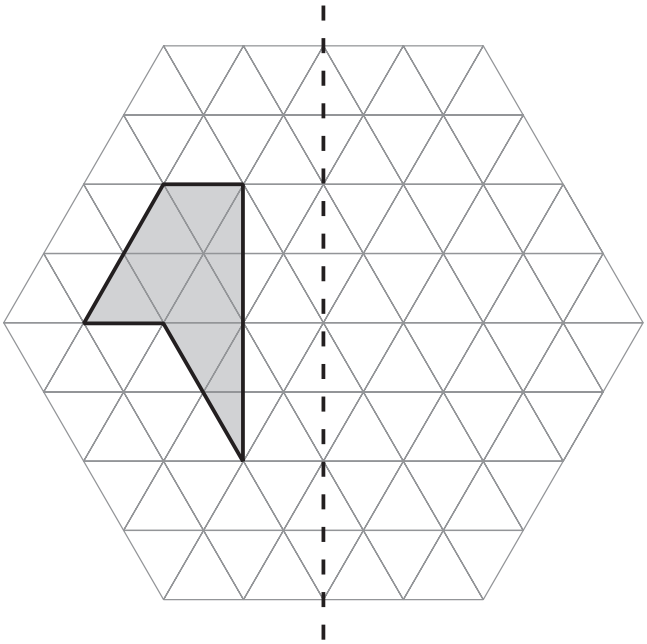
The digits add up to 7

What could my number be?

3

1 mark

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



4

1 mark

5 This table shows the opening times of a pet clinic.

 **Pet Clinic**	
Monday	10 am to 4:30 pm
Tuesday	10 am to 4:30 pm
Wednesday	Closed all day
Thursday	10:30 am to 2:30 pm
Friday	1 pm to 6:30 pm
Saturday	10 am to 5:30 pm
Sunday	Closed all day

How many hours is the clinic open on Thursday?

hours

5a

1 mark

On which day is the clinic open for the longest time?

5b

1 mark

Liam takes his dog to the clinic on Saturday.

He arrives at 9:25 am.

How many minutes is it before the clinic opens?

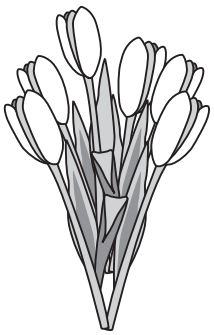
minutes

5c

1 mark

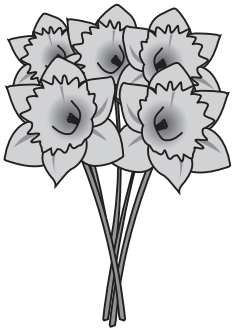
Total out of 5 _____

6 These are some prices in a flower shop.



tulips
£1.20 for a bunch

roses
40p each



daffodils
55p for a bunch

How many roses can you buy for exactly £2?

6a

1 mark

Amy buys **one** bunch of tulips and **three** bunches of daffodils.

How much does she pay **altogether**?

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

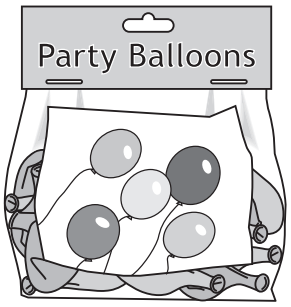
£

6bi

6bii

2 marks

7 Sarah has a packet of balloons.



The contents of the packet are

5 red balloons
5 blue balloons
10 yellow balloons

Sarah says,

'One-quarter of the balloons are red'.

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

Yes / No

Explain how you know.

7

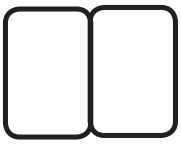
1 mark

Total out of 4 _____

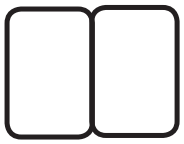
8 Here are six digit cards.

2	3	4	5	6	7

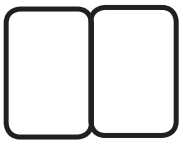
Use **all six** digit cards to make three multiples of 3



multiple of 3



multiple of 3



multiple of 3

8

1 mark

9 This table shows the four most popular names for baby girls born each year from 2004 to 2008.

	2004	2005	2006	2007	2008
1st	Emily	Jessica	Olivia	Grace	Olivia
2nd	Ellie	Emily	Grace	Ruby	Ruby
3rd	Jessica	Sophie	Jessica	Olivia	Grace
4th	Sophie	Olivia	Ruby	Emily	Emily

In how many years was Olivia in the **top three** most popular names?

9a

1 mark

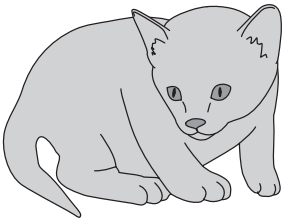
Write **all** the years when Emily was a more popular name than Jessica.

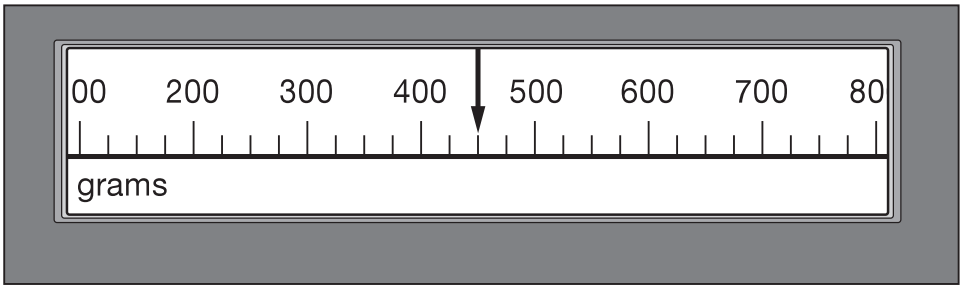
9b

1 mark

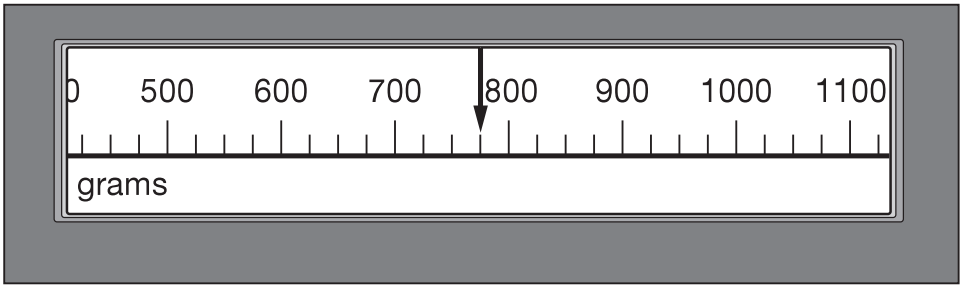
Total out of 3 _____

10 This scale shows the mass of Amy's kitten when it was one month old.





This scale shows the mass of the kitten when it was two months old.



What is the increase in mass?

g

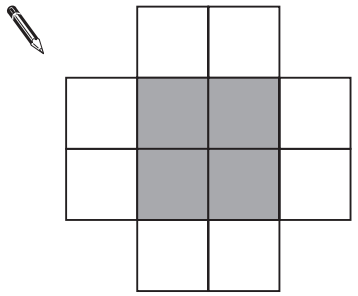
10

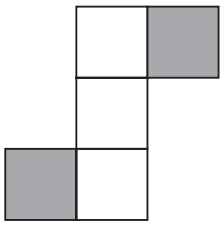
1 mark

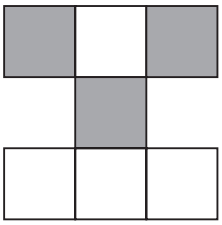
11 These diagrams are all made of squares.

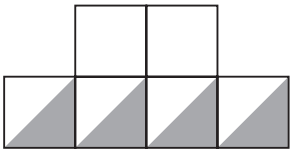
Look at each diagram.

Put a tick (✓) if exactly $\frac{1}{3}$ of it is shaded. Put a cross (✗) if it is not.









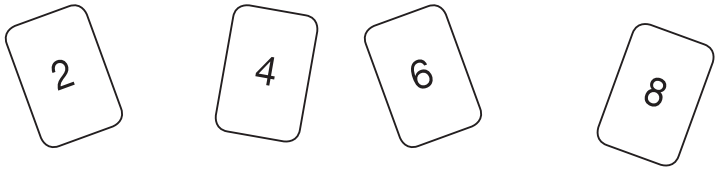
11i _____

11ii _____

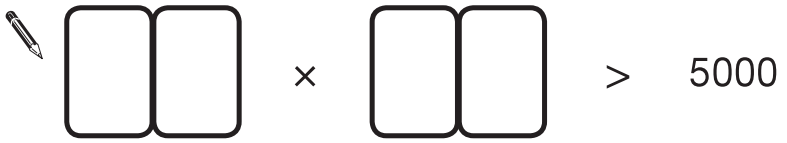
2 marks

Total out of 3 _____

12



Use all four digit cards to make this number sentence correct.



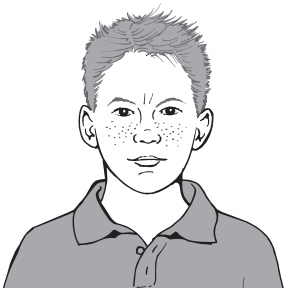
12

1 mark

13 Liam thinks of a number.

He divides it by 9 and then adds 25 to the result.

His answer is 36



What number did Liam start with?

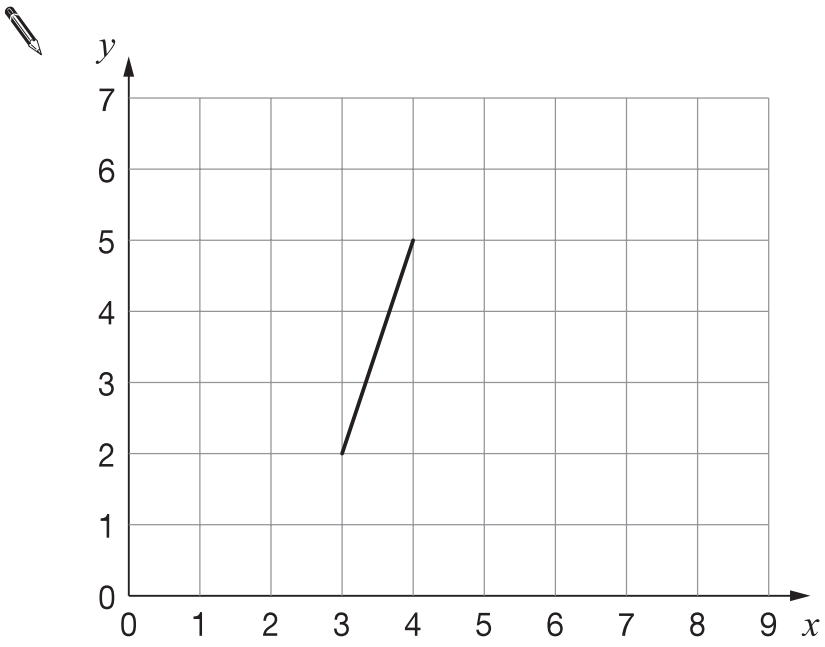
Show your **method**. You may get a mark.

13i

13ii

2 marks

14 Here is one side of a square drawn on a coordinate grid.



The square has a vertex at (6, 1).

Draw the other three sides of the square on the grid.

Use a ruler.

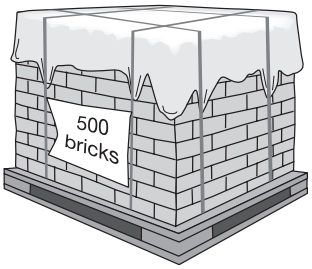
14

1 mark

Total out of 4 _____

15 A builder needs 7600 bricks to build a wall.

There are 500 bricks in a load.



How many loads must the builder buy?

15a

1 mark

The price of one load of 500 bricks is £230

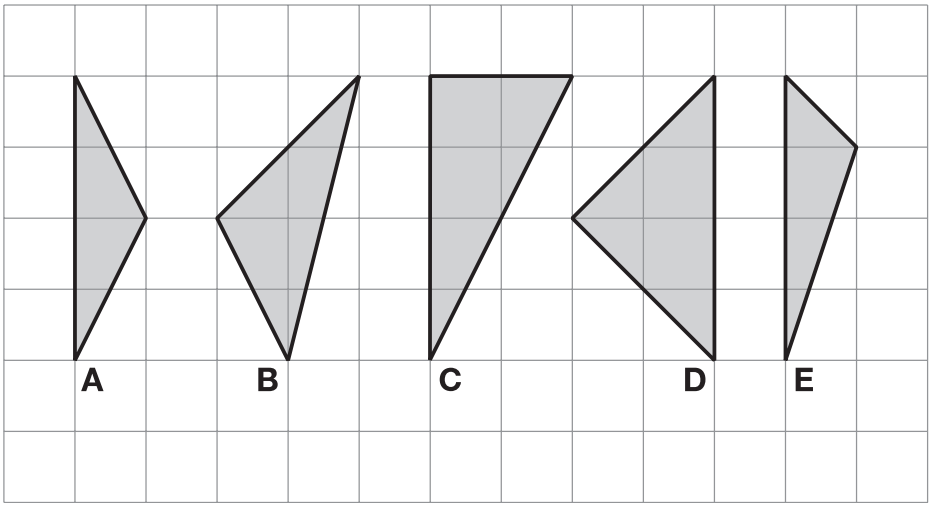
What is the cost in pence of one brick?

p

15b

1 mark

16 Here are five shaded triangles on a square grid.



Write the letter of each triangle that has a **right angle**.

_____ 16a

1 mark

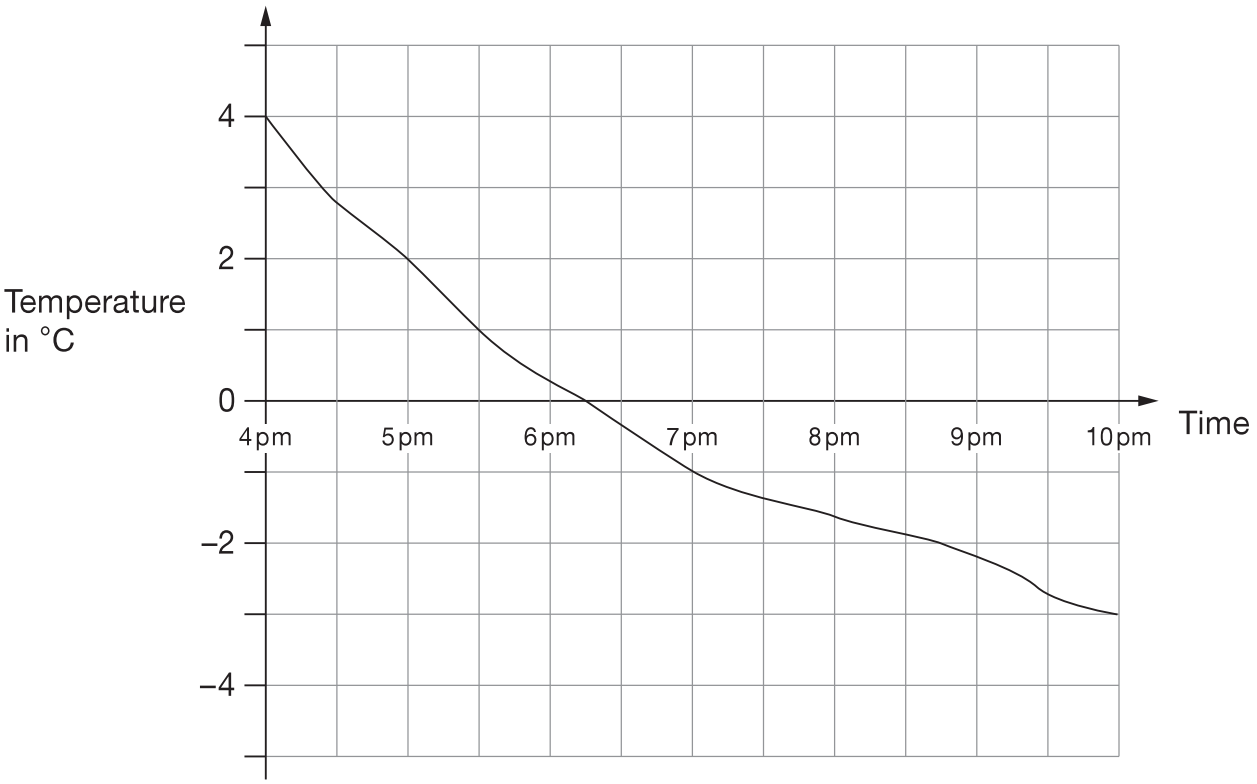
Write the letter of each triangle that has **two equal sides**.

_____ 16b

1 mark

Total out of 4 _____

17 This graph shows the outside temperature from 4 pm to 10 pm on a day in winter.



At what time was the temperature –2°C?

17a

1 mark

How many degrees did the temperature drop from 5 pm to 7 pm?

degrees

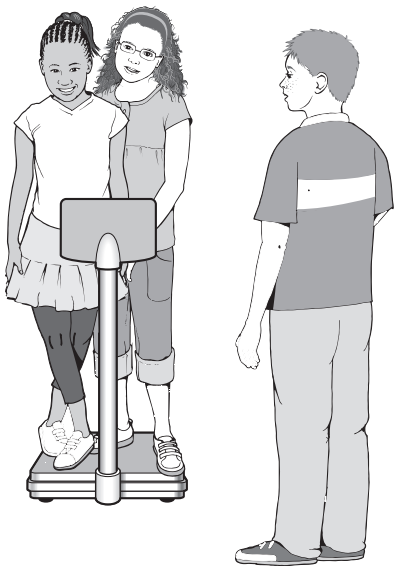
17b

1 mark

18 Sarah, Amy and Liam stand on some weighing scales two at a time.

Here are the measurements:

Sarah and Amy	**70 kg**
Sarah and Liam	**80 kg**
Liam and Amy	**80 kg**



How much does Liam weigh?

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

kg

18i

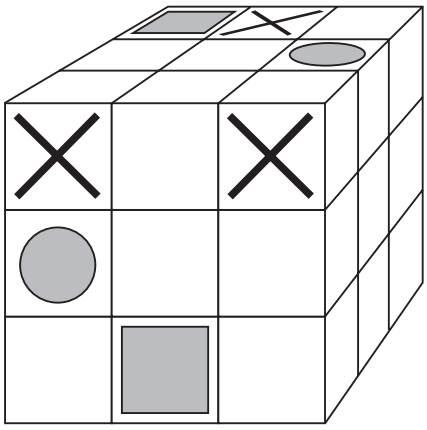
18ii

2 marks

Total out of 4 _____

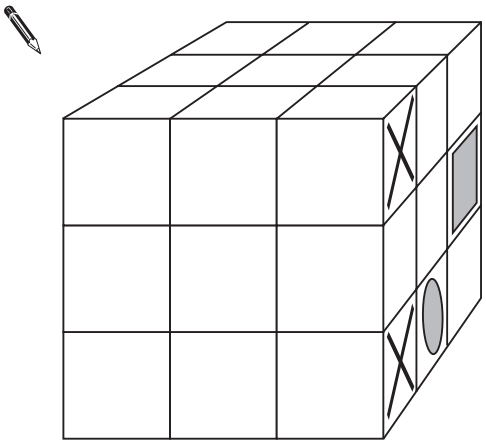
19 Cubes have been stuck together to make this block.

The block has a pattern on two faces.



The block is turned to the position below.

Draw the missing parts of the pattern on it.



19i

19ii

2 marks

20 Calculate $\frac{7}{16}$ **of 288**

20

1 mark

21 Here are four pairs of measurements.

For each pair, put a ring around the **larger** measurement.

One has been done for you.

4 centimetres	(4 inches)
10 kilometres	10 miles
2 litres	2 pints
5 grams	5 pounds

21

1 mark

Total out of 4 _____

22 Put a tick (✓) in each row to complete this table.

One has been done for you.

	less than 1000	equal to 1000	more than 1000
5 × 15 × 25			✓
16 × (80.3 – 17.8)			
3888 ÷ (4.32 – 0.57)			
(32 – 5.7) × (32 + 5.7)			

22i _____

22ii _____

2 marks

23 k stands for a number.

Complete the number sentences below.

One has been done for you.

5 more than k is $k + 5$

2 less than k is _____

3 more than twice k is _____ 23i _____

6 more than half of k is _____ 23ii _____

2 marks

24 Here are two bags of marbles, **A** and **B**.

Each bag contains blue marbles and red marbles only.

3 blue marbles
and
3 red marbles

6 blue marbles
and
9 red marbles

Liam chooses a marble from each bag without looking.

From which bag is he more likely to choose a **blue** marble?

Circle **A** or **B**.

A / B

Explain how you know.

24

1 mark

Total out of 5 _____

QCDA/10/4483 (Pupil pack)
QCDA/10/4477 (Mark schemes pack)

298172