

Ma

KEY STAGE

2

LEVELS

3-5

# Mathematics test

## Test A

Calculator not allowed

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

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

School \_\_\_\_\_

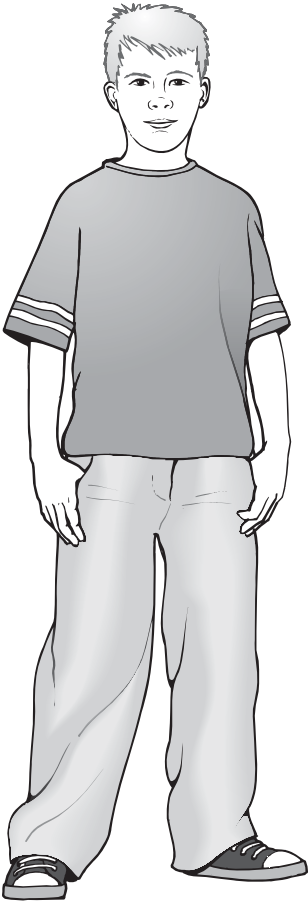


2009

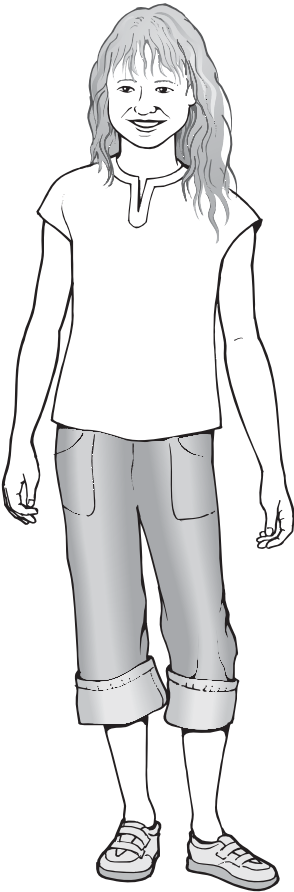
For marker's use only

Page	Marks
5	
7	
9	
11	
13	
15	
17	
19	
21	
23	
<b>TOTAL</b>	

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.



12:30am

12:30pm

11:30am

11:30pm

3am

        <sup>1</sup>  
1 mark

2

Here are four digit cards.

4

6

2

7

Use all four digit cards to make this sum correct.



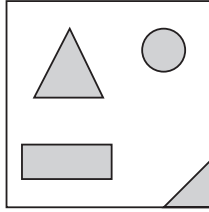
+

= 100

        <sup>2</sup>  
1 mark

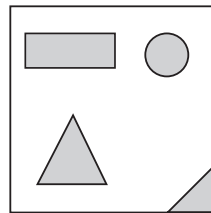
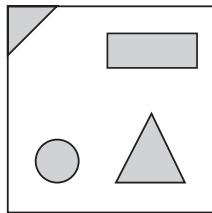
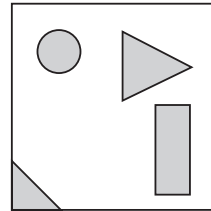
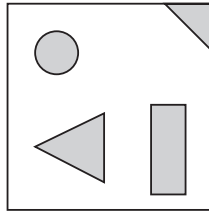
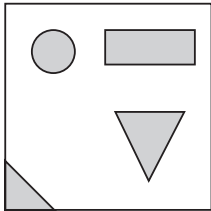
3

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.



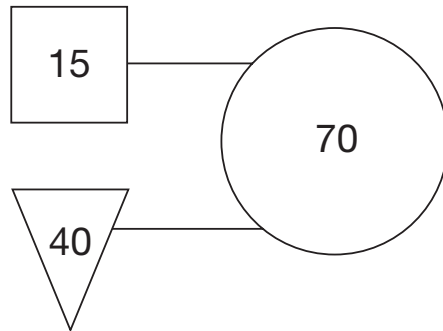
3

1 mark

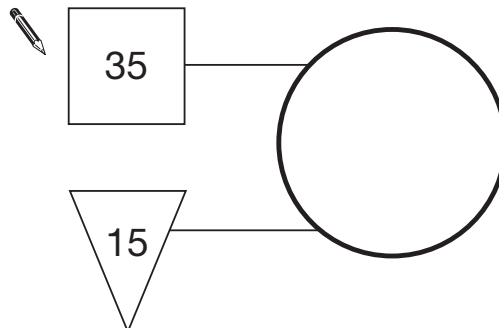
4

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'.***

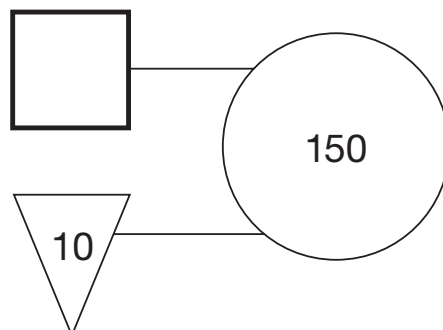


Use the same rule to write in the missing numbers below.



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

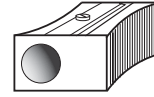
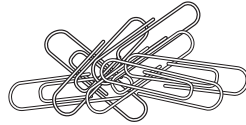
1 mark

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



5b

1 mark



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  $48 \div 3$

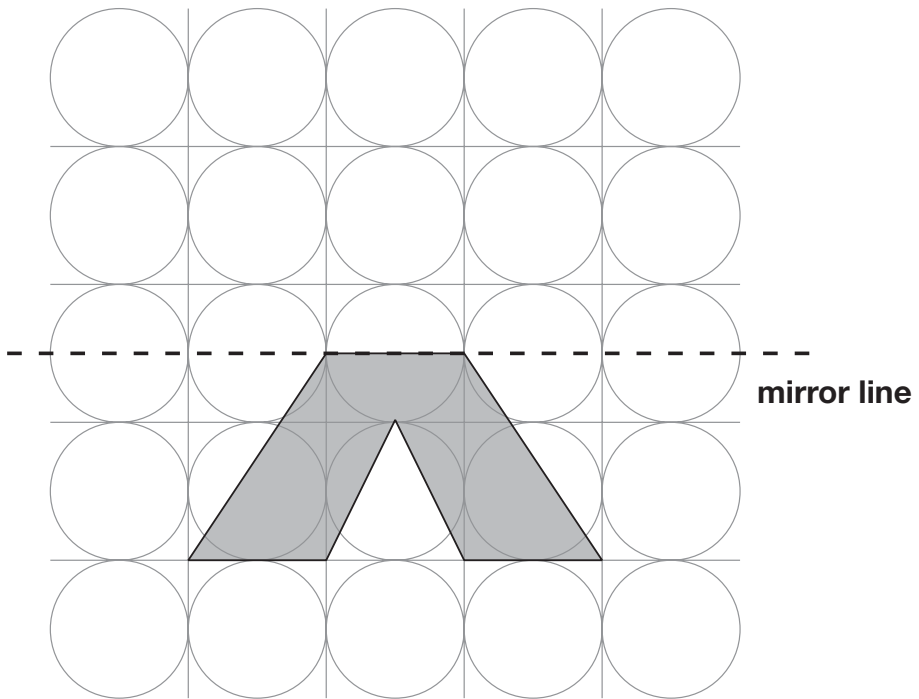


7

1 mark

8

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



8

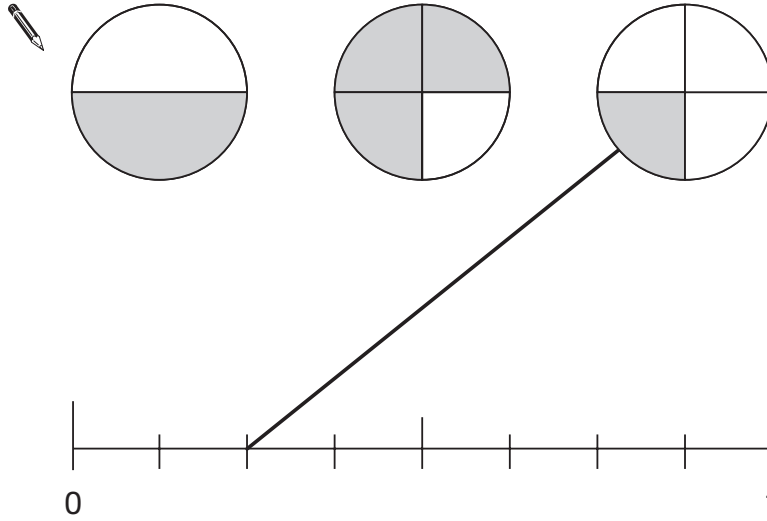
1 mark

9

A fraction of each shape is shaded.

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

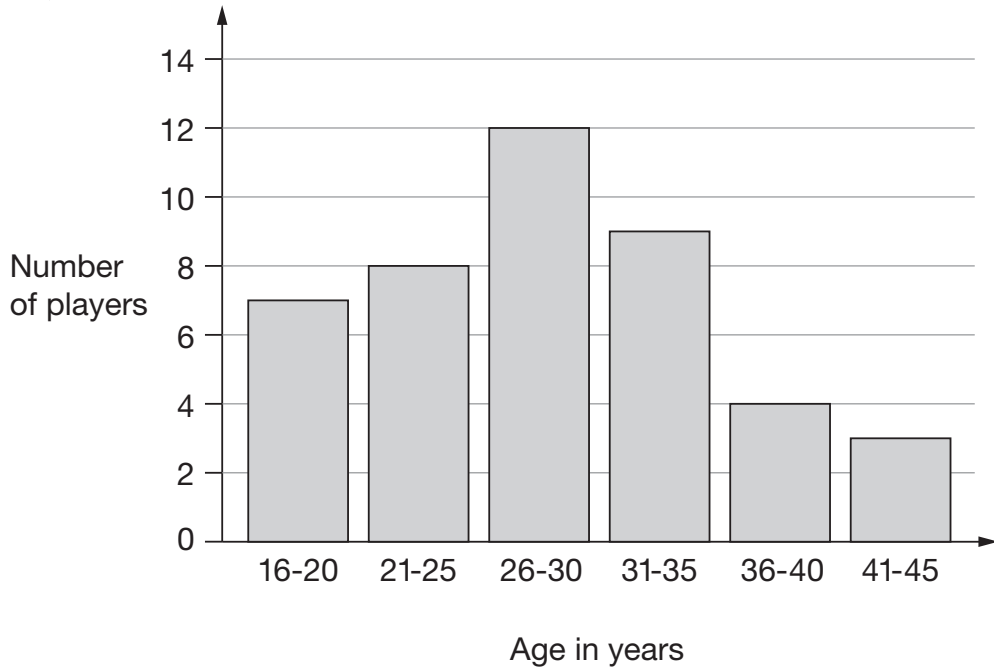
One has been done for you.



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.

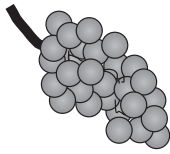
Add this information to the graph above.

10b

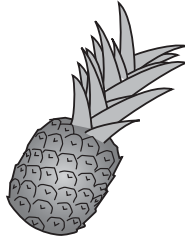
1 mark

11

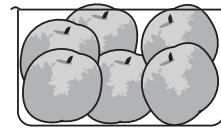
Amir and Lara buy some fruit.



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.

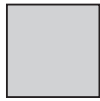
A large, empty, cloud-shaped outline with a scalloped border, intended for the student to write their explanation.

12

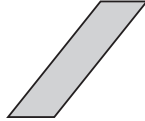
1 mark

13

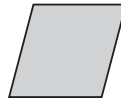
Here are six quadrilaterals with their mathematical names.



square



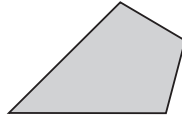
parallelogram



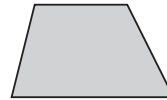
rhombus



oblong



kite



trapezium

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

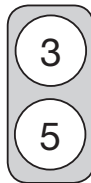
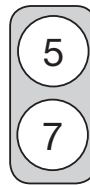
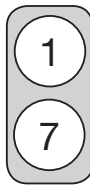
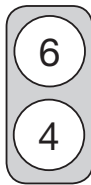


0.2    0.25    0.4    0.45    0.6    0.75

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.

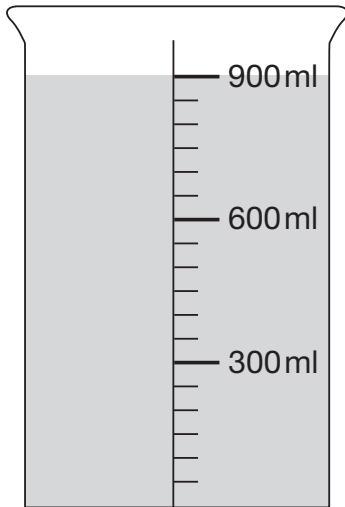
What is the **most likely** total of the numbers on his card?



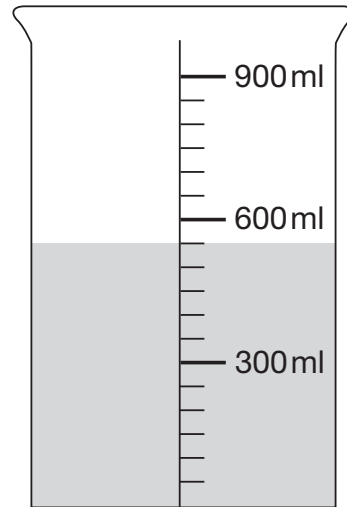
15  
1 mark

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?

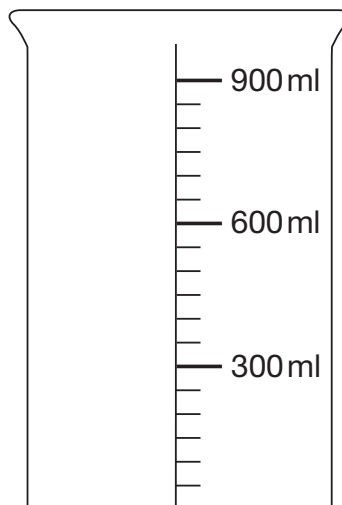


16a

1 mark

Then she pours out another 150ml of water.

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



16b

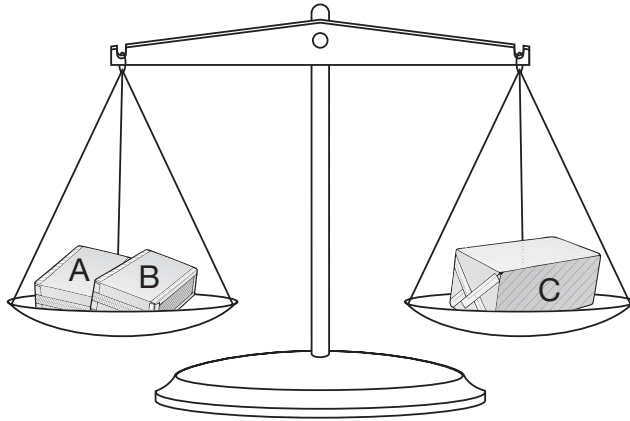
1 mark



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 250g.

How much does parcel B weigh?



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

g

17i

17ii

2 marks

18

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



\_\_\_\_\_

18i

18ii

2 marks

19

Calculate  $602 \times 57$



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



19i

19ii

2 marks

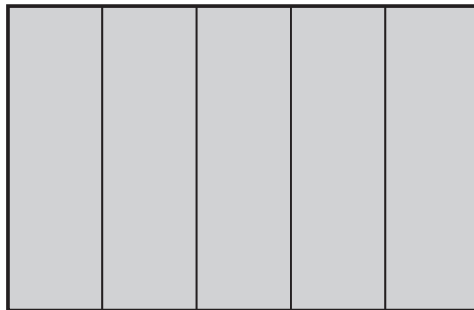
20

Lara has some identical rectangles.

They are 7 centimetres long and 2 centimetres wide.



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



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



20a  
1 mark

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

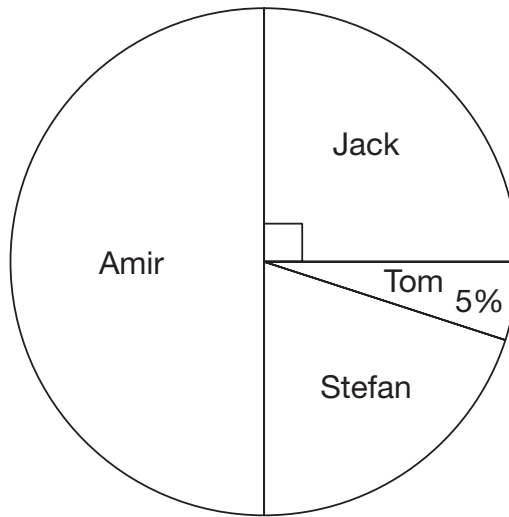


20b  
1 mark

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.



$\frac{2}{3}$

$\frac{6}{10}$

$\frac{9}{12}$

$\frac{10}{15}$

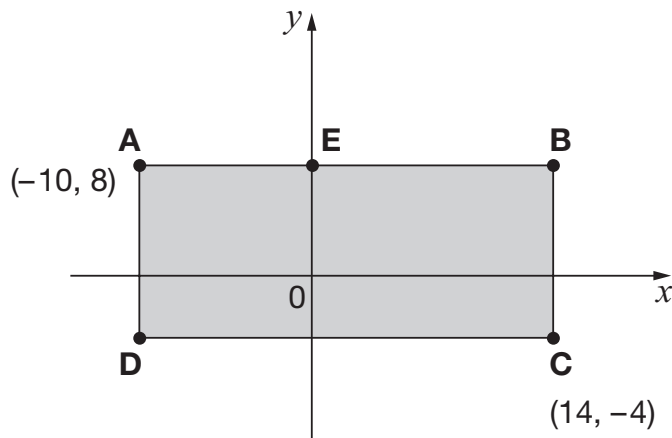
$\frac{16}{20}$

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

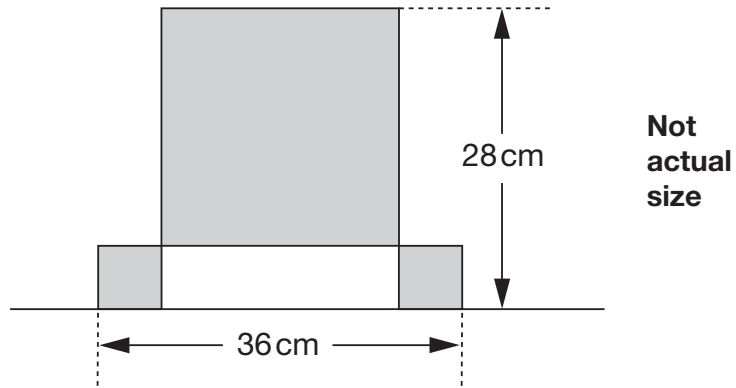
23b

1 mark

24

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

The design measures 36 centimetres by 28 centimetres.



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

