

Ma

KEY STAGE

2

LEVELS

3-5

# Mathematics test

## Test B

Calculator allowed

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

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

School \_\_\_\_\_

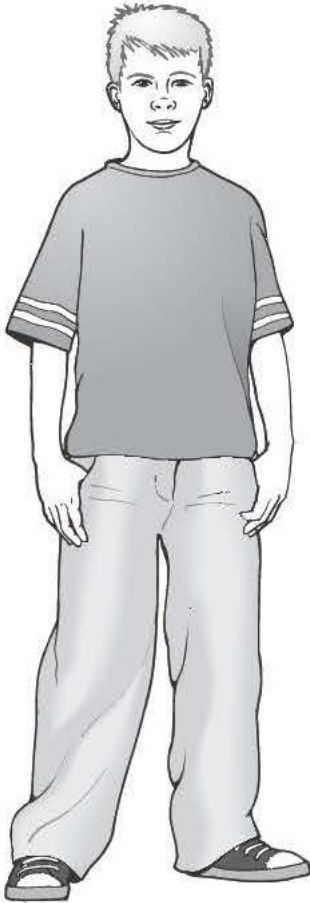


2009

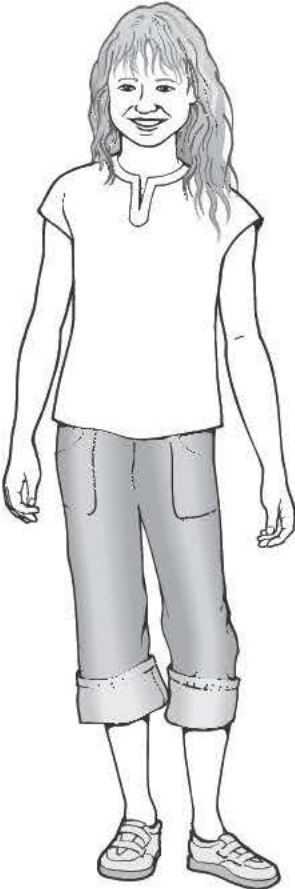
For marker's use only

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

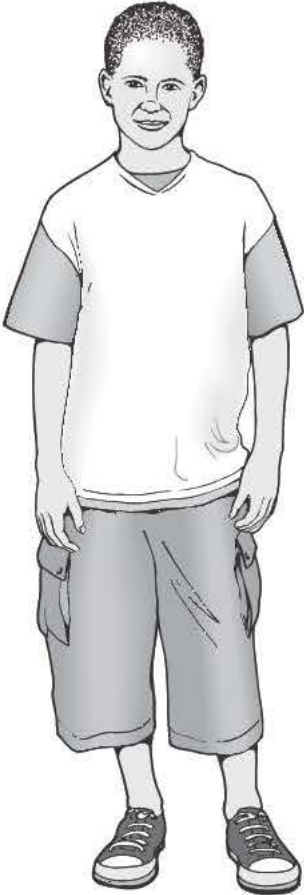
These three children appear in some of the questions in this test.



Stefan



Lara



Amir

# 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

Tick (✓) each multiplication that has an answer **greater** than 1000

One has been done for you.



$11 \times 10 \times 10$

$12 \times 11 \times 8$

$13 \times 9 \times 8$

$14 \times 11 \times 6$

$15 \times 12 \times 6$

1i

\_\_\_\_\_

1ii

\_\_\_\_\_

2 marks

2

Round the following numbers.



540 to the nearest 100

236 to the nearest 10

$1\frac{3}{4}$  to the nearest whole number

2i

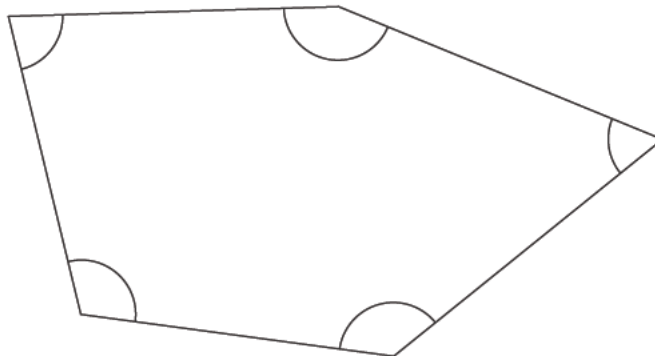
2ii

2 marks

3

Look at this shape.

Tick (✓) each angle that is **less** than a right angle.



3

1 mark

4

Plastic cups are sold in packs of 8

Amir needs 27 cups.



How many packs must he buy?



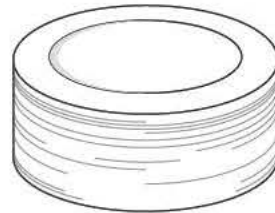
4a

1 mark

There are 30 paper plates in a pack.

Amir buys 2 packs.

He uses 37 plates.



How many plates are left?



4b

1 mark

5

Here are five coins.



5

1 mark

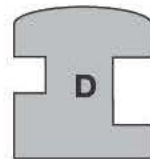
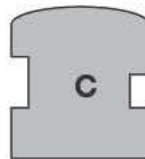
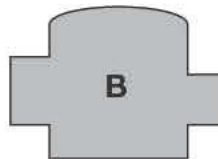
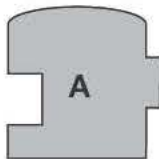
Stefan takes two coins and Lara takes the other three coins.

Stefan takes **15p more** than Lara.

Tick (✓) the two coins Stefan takes.

6

Here are four shapes.



They can be fitted together in a straight line so that there are no gaps between them.

Write the order of the letters of the shapes when they all fit together.



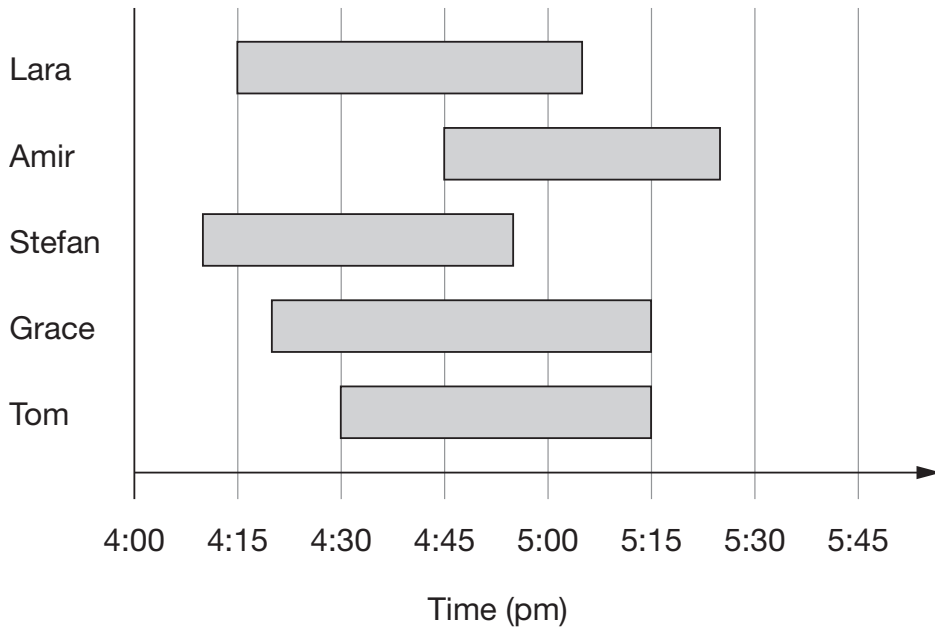
\_\_\_\_\_

6

1 mark

7

This chart shows the times when 5 children were at a swimming pool one afternoon.



Who was the next person to arrive after Stefan?



\_\_\_\_\_

7a

1 mark

Who spent the longest time at the swimming pool?



\_\_\_\_\_

7b

1 mark

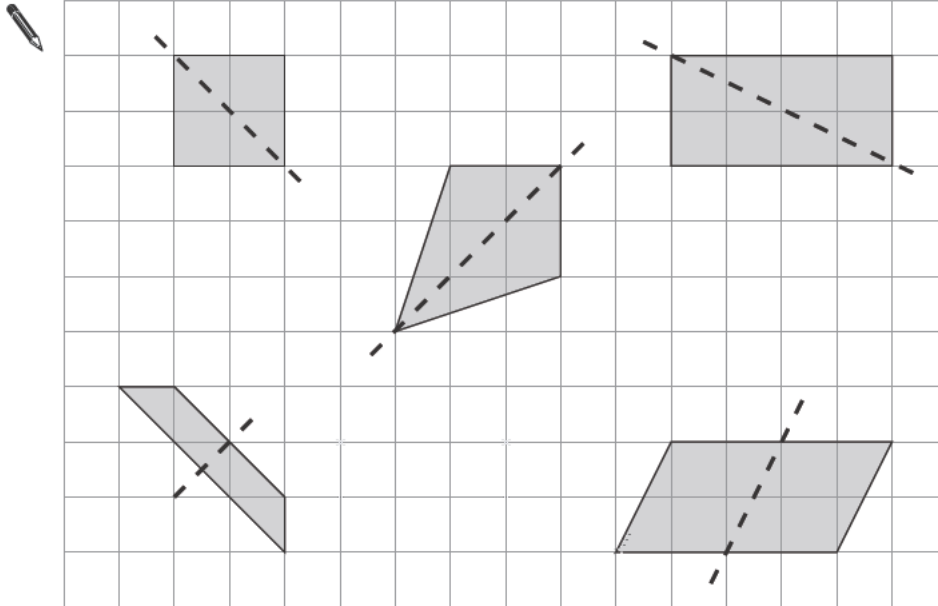


8

Here are five quadrilaterals on a square grid.

A dotted line has been drawn on each quadrilateral.

For each shape, put a tick (✓) if the dotted line is a line of symmetry.  
Put a cross (✗) if it is not a line of symmetry.




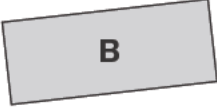
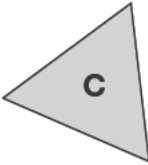
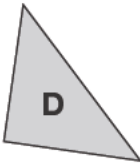
8i

8ii

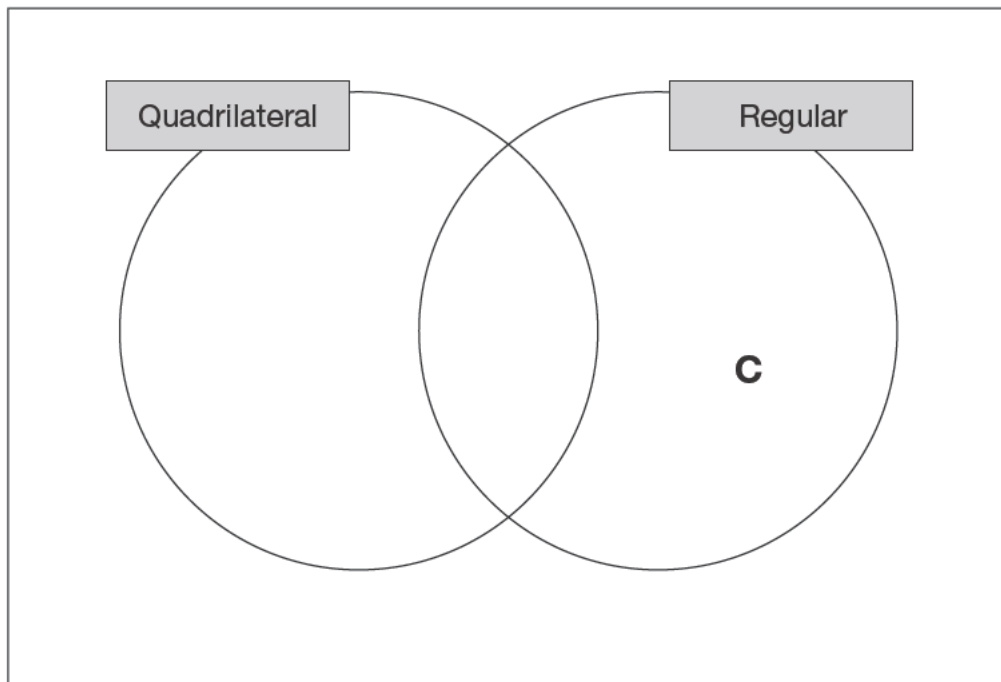
2 marks

9

Here are four shapes in a Carroll diagram.

	Regular	Not regular
Quadrilateral		
Not a quadrilateral		

Use this information to write the letters **A**, **B** and **D** in the Venn diagram below.



9i

9ii

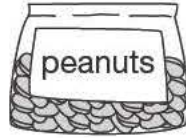
2 marks

10

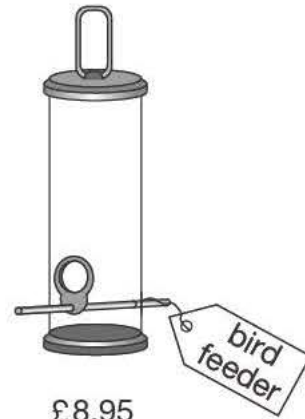
A shop sells food for birds.



£3.79 for  
a bag



£1.35 for  
a bag



£8.95  
each

Lara has £10 to spend on peanuts.

How many bags of peanuts can she get for £10?



10a

1 mark

Amir has £20

He wants to buy a bird-feeder and 4 bags of bird seed.

How much **more** money does he need?




10bi

10bii

2 marks

**11**

This table shows when flights take off at an airport.

Flight number	Destination	Take-off time 
AX40	Paris	13:35
BH253	Berlin	14:05
CG008	Rome	15:25
DP369	Paris	15:40
EZ44	Lisbon	16:15
FJ994	Dublin	17:25

How many flights take off between 3pm and 5pm?



11a

1 mark

How much later does the second flight to Paris take off than the first?



11b

1 mark

The flight to Dublin takes 50 minutes.

What time does it arrive in Dublin?



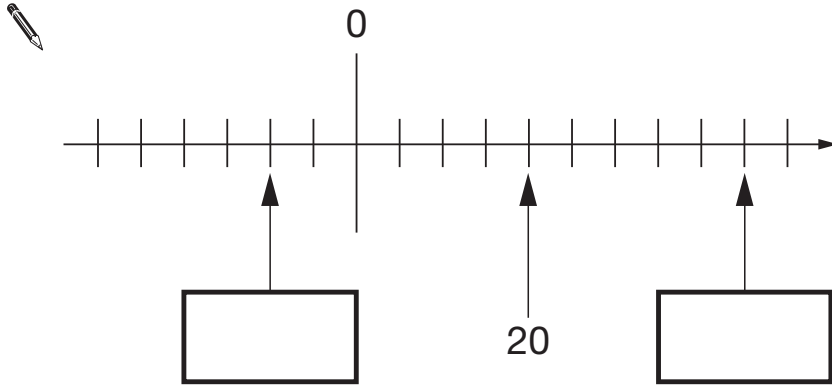
11c

1 mark

12

Here is part of a number line.

Write the missing numbers in the boxes.



12a

1 mark

12b

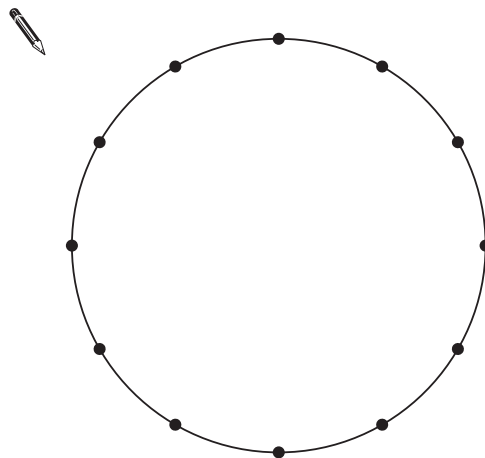
1 mark

13

The twelve points on this circle are equally spaced.

Join four points to make a **square**.

Use a ruler.



13

1 mark

**14**

Write what the numbers in the boxes could be.

$$10 \times \square = \square - 10$$

14  
1 mark

**15**

Stefan has a bag that contains 3 blue marbles and 5 red marbles only.



What fraction of the marbles in the bag are blue?



15a  
1 mark

Stefan adds one blue marble and one red marble to the bag.

What fraction of the marbles in the bag are blue now?



15b  
1 mark

16

Here are five calculations.

A  $720 \div 64$

B  $820 \div 75$

C  $920 \div 80$

D  $1020 \div 90$

E  $1120 \div 100$

Write the letter of the calculation that has the **greatest** answer.



\_\_\_\_\_

16a

1 mark

Write the letter of the calculation that has an answer **closest to 11**



\_\_\_\_\_

16b

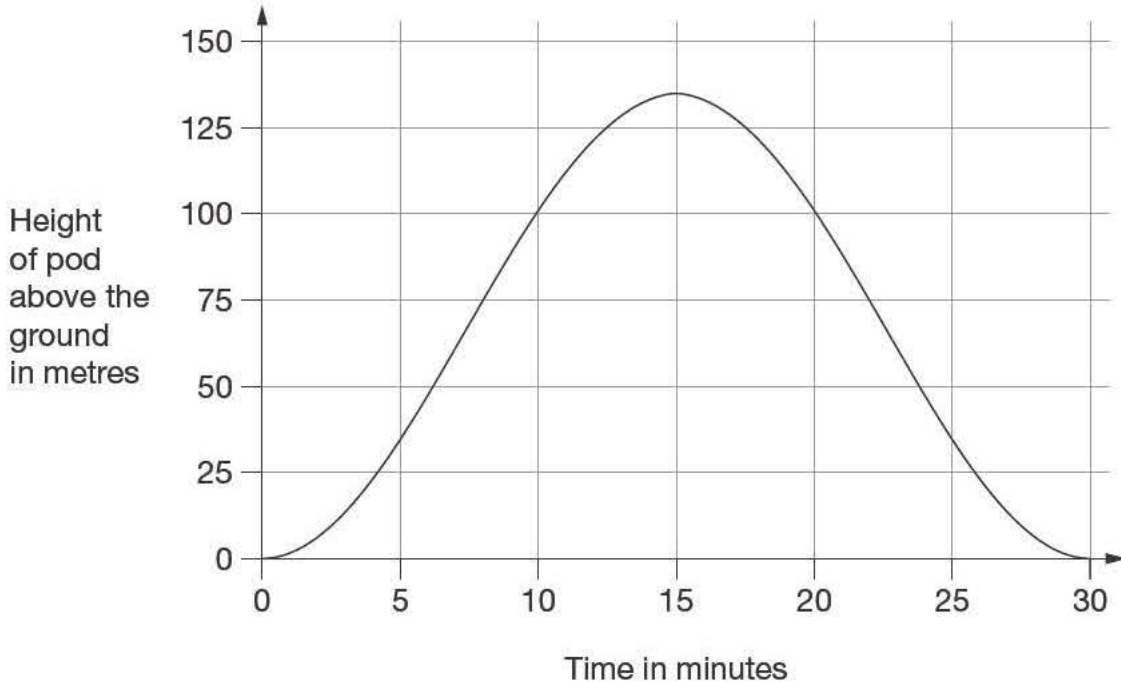
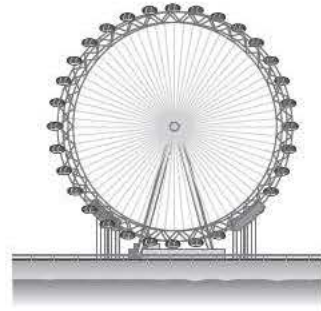
1 mark

17

The London Eye is a big wheel with pods to carry passengers.

It takes 30 minutes for the wheel to make a complete turn.

This graph shows the height of a pod above the ground as the wheel turns.



How long from the start does it take the pod to reach a height of 75 metres?



minutes

17a

1 mark

How many metres above the ground is the pod at its highest point?



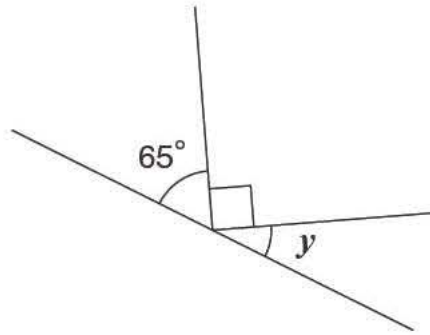
m

17b

1 mark



18



Not to scale

Calculate the size of angle  $y$  in this diagram.

Do **not** use a protractor (angle measurer).

  $y =$

18

1 mark

19

Lara chooses a **square number**.

She rounds it to the nearest hundred.

Her answer is 200



Write **all** the possible square numbers Lara could have chosen.



\_\_\_\_\_

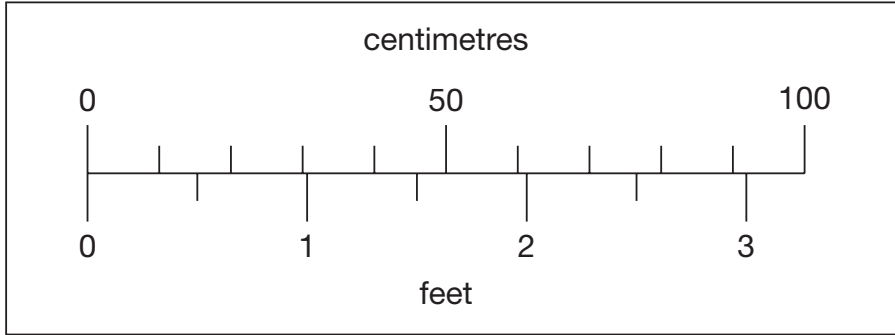
19i

19ii

2 marks

20

This scale shows length measurements in **centimetres** and **feet**.



**Not  
actual  
size**

Look at the scale.

Estimate the number of centimetres that are equal to  $2\frac{1}{2}$  feet.



20a

1 mark

Estimate the difference in centimetres between 50cm and  $1\frac{1}{2}$  feet.

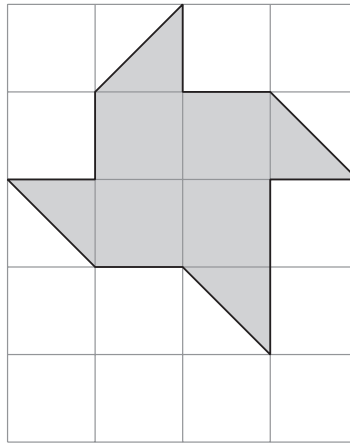


20b

1 mark

21

Here is a grid of 20 squares.



What percentage of the grid is shaded?



%

21

1 mark

Here is a recipe for fruit smoothies.

**Recipe**

10 strawberries  
 $\frac{1}{2}$  litre of orange juice  
 250ml yogurt  
 1 banana

*Makes two smoothies*



Stefan uses the recipe to make smoothies.  
 He uses 1 litre of yogurt.

How many strawberries does he use?




22a

1 mark

Amir uses the same recipe.

He wants to make 5 smoothies.  
 He has 1 litre of orange juice.

How many **more** millilitres of orange juice does he need?



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

ml

22bi

22bii

2 marks

End of test





