

Mathematics test

Test B

Calculator allowed

First name _____

Last name _____

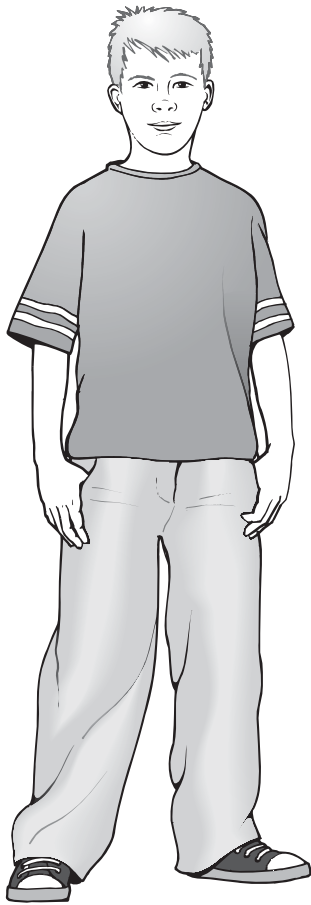
School _____



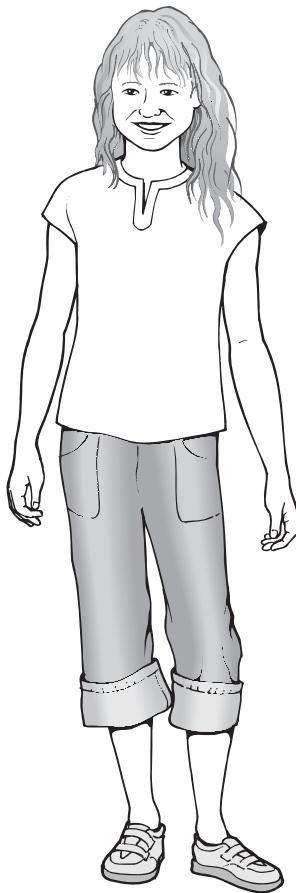
For marker's use only

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

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**.

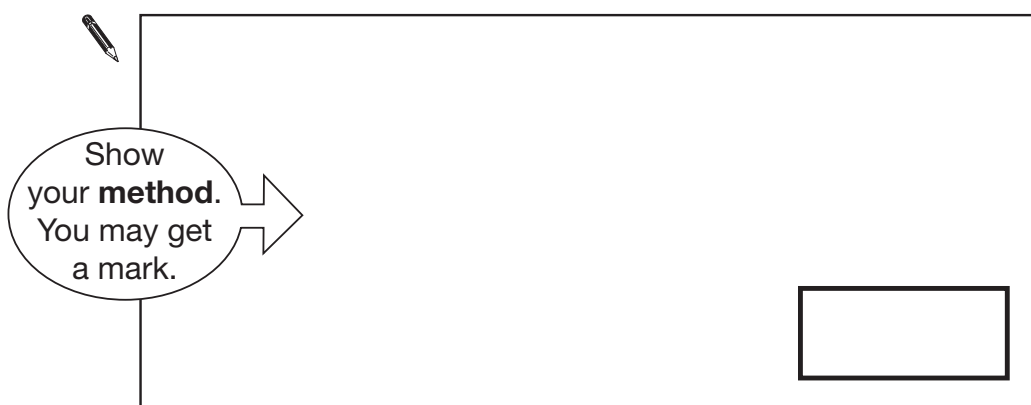
Follow the instructions for each question carefully.



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:

A diagram showing a large rectangular box for an answer. On the left side of the box, there is a circular callout containing the text "Show your **method**. You may get a mark." with an arrow pointing to the right. Above the callout is a small pencil icon. 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 method.

1Tick (✓) 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

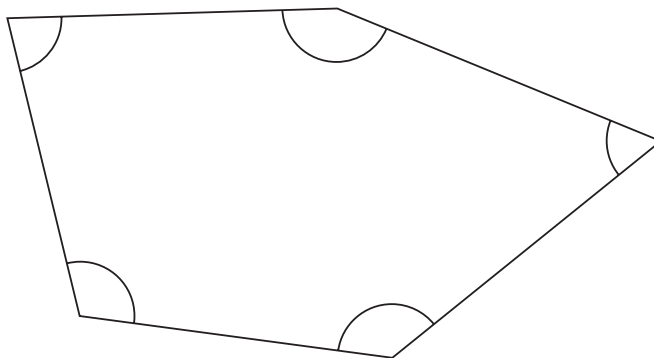
2i

2ii

2 marks

3

Look at this shape.

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

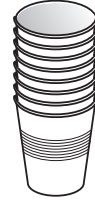
3

1 mark

4

Plastic cups are sold in packs of 8

Amir needs 27 cups.



How many packs must he buy?



packs

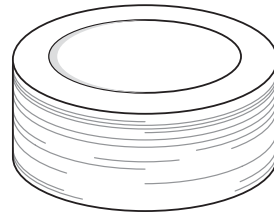
4a

1 mark

There are 30 paper plates in a pack.

Amir buys 2 packs.

He uses 37 plates.



How many plates are left?



plates

4b

1 mark

5

Here are five coins.



5

1 mark

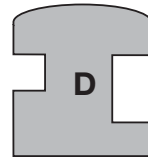
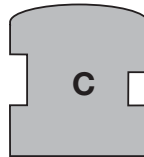
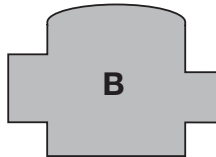
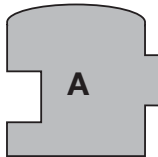
Stefan takes two coins and Lara takes the other three coins.

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.

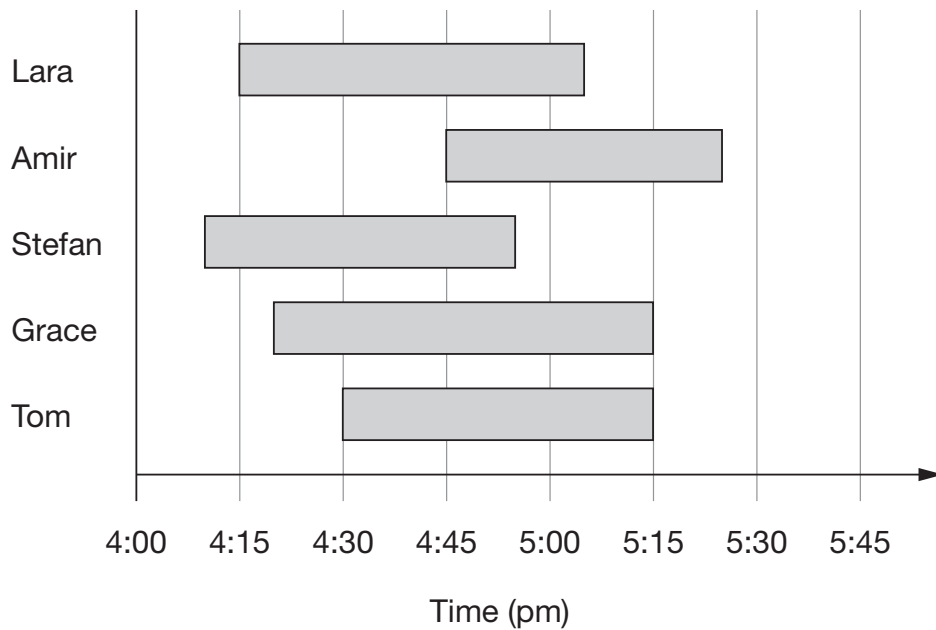


6

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

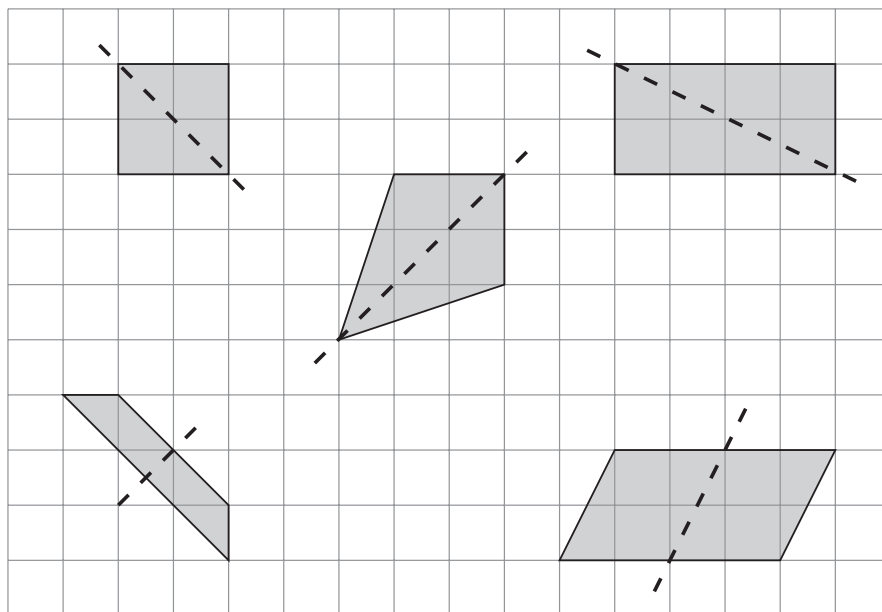
1 mark

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.

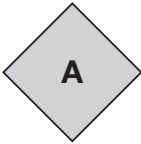
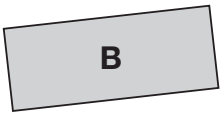
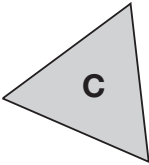
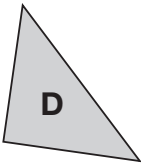


8i

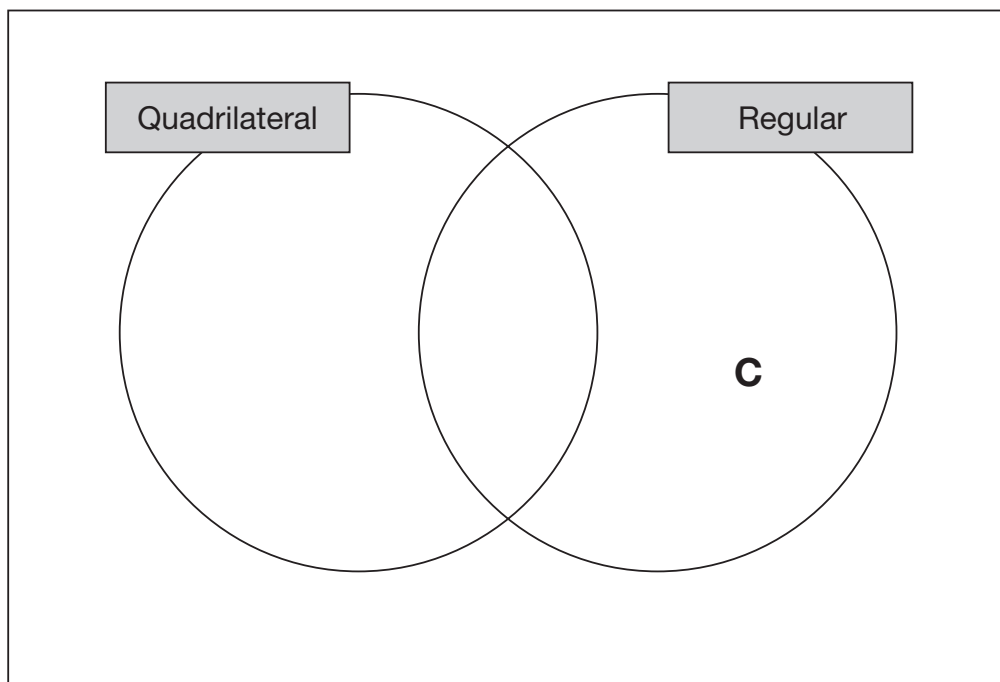
8ii

2 marks

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

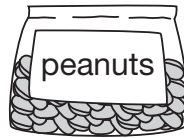
2 marks

10

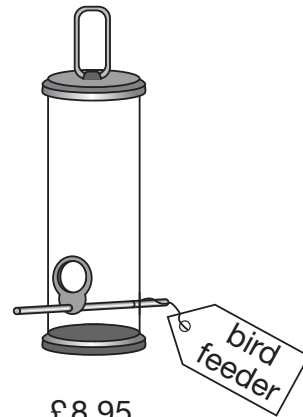
A shop sells food for birds.



£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?



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



£

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?



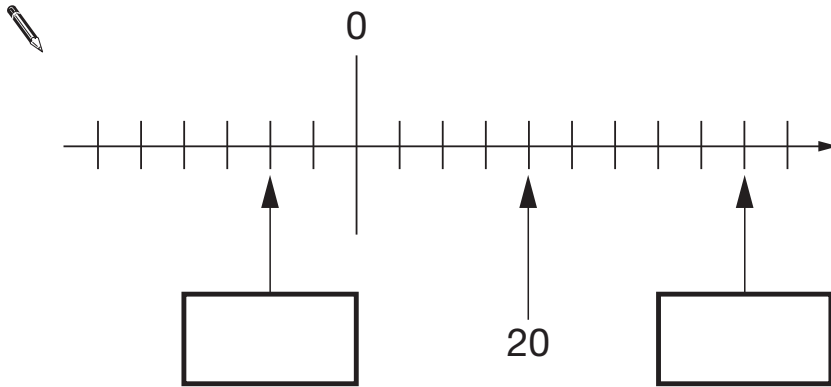
11c

1 mark

12

Here is part of a number line.

Write the missing numbers in the boxes.



12a

1 mark

12b

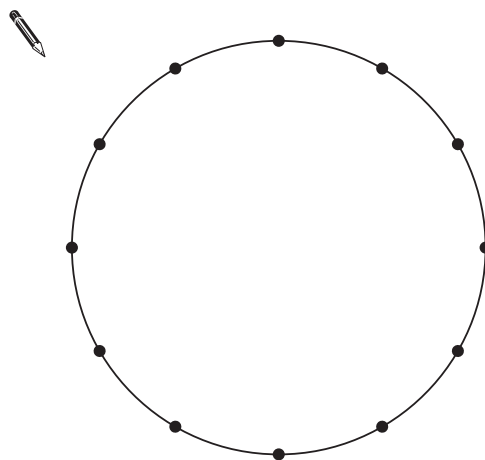
1 mark

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.

 $10 \times \boxed{} = \boxed{} - 10$

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?

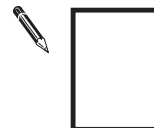


15a

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

16b

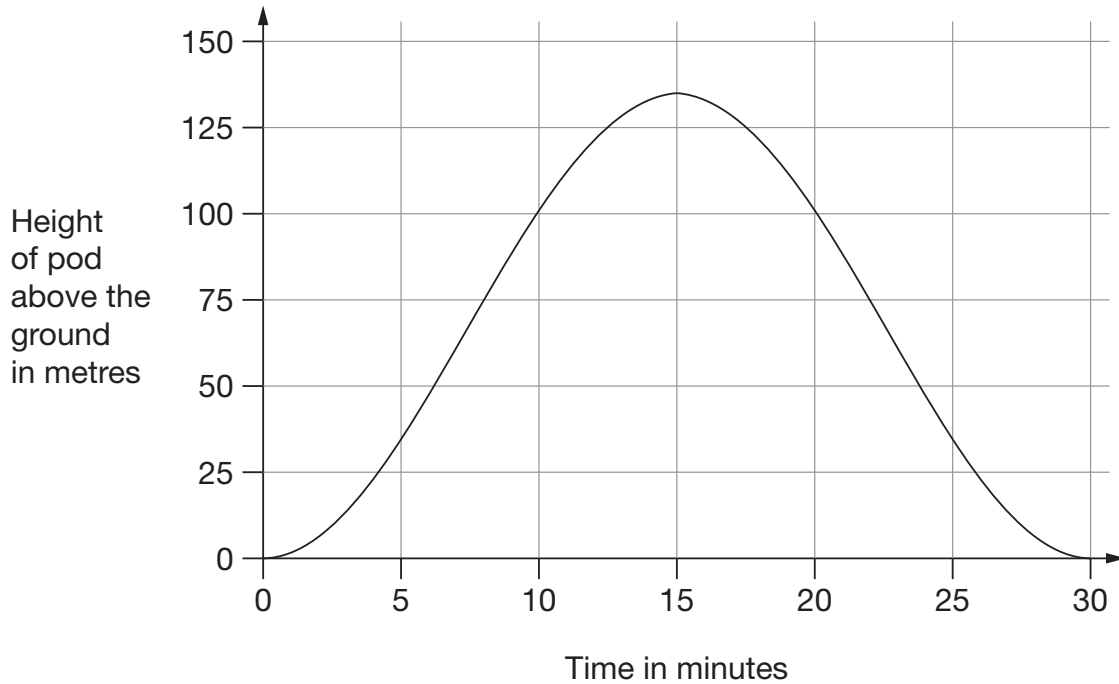
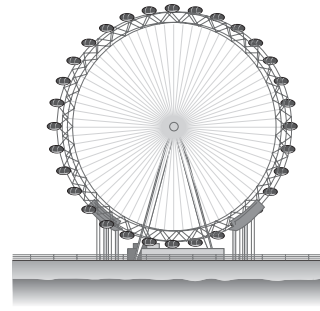
1 mark

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

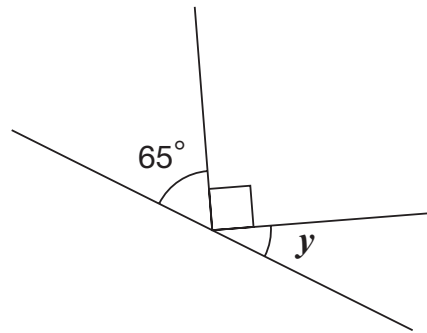
How many metres above the ground is the pod at its highest point?



m

17b

1 mark



Not to scale

Calculate the size of angle y in this diagram.

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


 $y =$

18

1 mark

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.



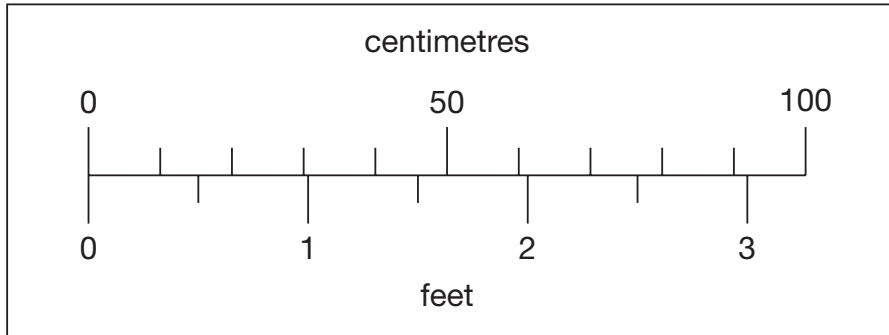
19i

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.



cm

20a

1 mark

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



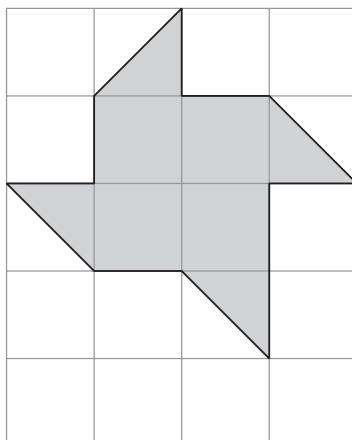
cm

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

