

Ma

KEY STAGE

2

LEVELS

3–5

# Mathematics tests

## Test B

Calculator allowed

|               |     |  |       |  |      |  |
|---------------|-----|--|-------|--|------|--|
| First name    |     |  |       |  |      |  |
| Middle name   |     |  |       |  |      |  |
| Last name     |     |  |       |  |      |  |
| Date of birth | Day |  | Month |  | Year |  |
| School name   |     |  |       |  |      |  |
| DfE number    |     |  |       |  |      |  |

For marker's use only

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

2013

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



Alfie



Chen



Megan

# 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.

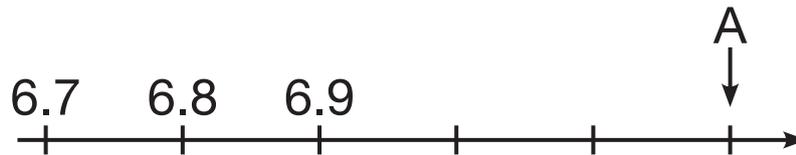
If you need to do working out, you can use any space on a page.

**Some questions have an answer box like this:**



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

1



What number is marked at A?



1

1 mark

2

At a tournament there are 7 players in each team.

There are 112 players altogether.

How many teams is this?

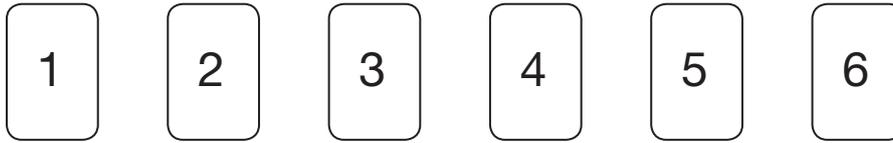


2

1 mark

3

Here are six digit cards.



Use **four** of the cards to make this addition correct.


$$\square\square + \square\square = 40$$

3  
1 mark

Total out of 3 \_\_\_\_\_

4

Here are five calculations.

**A**  $12 \times 12 - 10$

**B**  $13 \times 13 - 20$

**C**  $14 \times 14 - 40$

**D**  $15 \times 15 - 80$

**E**  $16 \times 16 - 160$

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



\_\_\_\_\_

4a

1 mark

Write the letter of the calculation that has the answer **closest to 100**



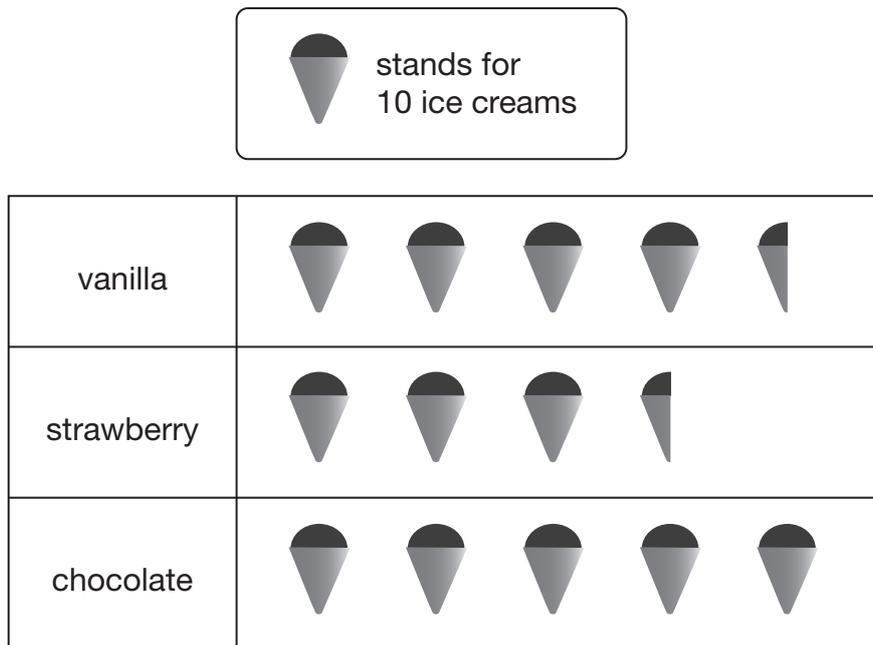
\_\_\_\_\_

4b

1 mark

5

This pictogram shows the number of ice creams a shop sold in one day.



How many **more** chocolate than strawberry ice creams were sold?



5a

1 mark

How many ice creams were sold **altogether**?



5b

1 mark

Total out of 4 \_\_\_\_\_

6

Here are four lines: A, B, C and D.



Which two lines have a total length of 18cm?



\_\_\_\_\_ and \_\_\_\_\_

6a

1 mark

Draw a straight line that is 3 centimetres longer than line **B**.

Use a ruler.



6b

1 mark

7

Books are 25p each at a car boot sale.

Alfie wants to buy 12 books.

He only has £2.35

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



Show  
your  
method

7i

7ii

2 marks

8

Write the missing number.



$$\div 11 = 17$$

8

1 mark

Total out of 5 \_\_\_\_\_

9

These are the opening times at Black Tower Castle.

|                   |                   |
|-------------------|-------------------|
| Monday            | Closed            |
| Tuesday to Friday | 11am to 6:30pm    |
| Saturday          | 10am to 6pm       |
| Sunday            | 10:30am to 4:30pm |

How many hours is the castle open on Saturdays?



9a

1 mark

Alfie arrived at the castle at 5pm on a Thursday.

How long could he stay before closing time?

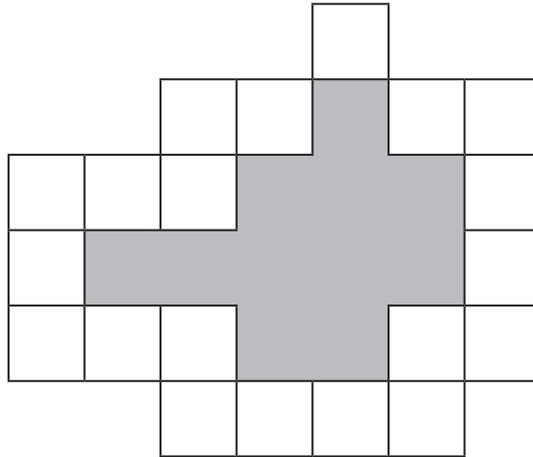


9b

1 mark

10

Here is a set of 20 squares around a shaded space.



What is the area of the shaded space?



squares

10

1 mark

Total out of 3 \_\_\_\_\_

**11**

Five children took part in a chess competition.

They each played six games.

This table shows how many games each child won, drew or lost.

|       | won | drew | lost |
|-------|-----|------|------|
| Alfie | 1   | 3    | 2    |
| Megan | 2   | 2    | 2    |
| Chen  | 3   | 3    | 0    |
| Donna | 4   | 0    | 2    |
| Tom   | 0   | 5    | 1    |

How many children drew more games than they lost?



11a

---

1 mark

Each child scores two points for a win,  
one point for a draw,  
no points for a loss.

Who scored the most points?



---

11b

---

1 mark

**12**

Here are three digit cards.

5

6

7

Use each card **once** to make these statements correct.

$$\begin{array}{|c|c|} \hline 4 & 6 \\ \hline \end{array} < \begin{array}{|c|c|} \hline & 2 \\ \hline \end{array}$$

$$\begin{array}{|c|c|} \hline 5 & 6 \\ \hline \end{array} > \begin{array}{|c|c|} \hline & 0 \\ \hline \end{array}$$

$$\begin{array}{|c|c|} \hline 7 & 6 \\ \hline \end{array} < \begin{array}{|c|c|} \hline & 7 \\ \hline \end{array}$$

12

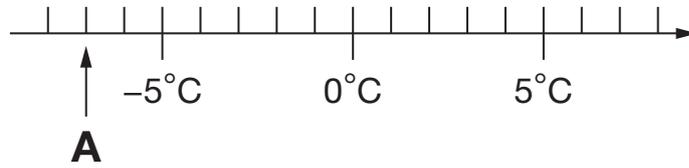
---

1 markTotal out of 3 

---

13

Here is part of a temperature scale.



What is the temperature shown at **A**?



°C

13a

1 mark

What temperature is 20 degrees **higher** than **A**?



°C

13b

1 mark

14

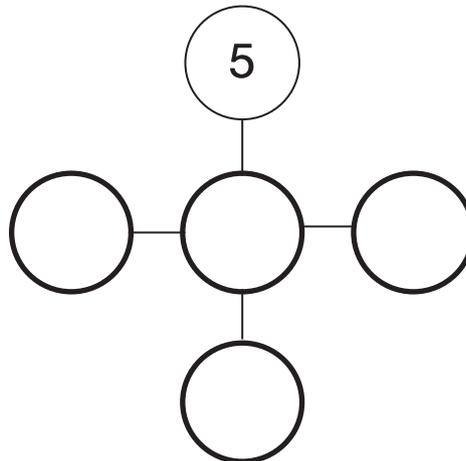
Here are five number discs.



Look at the cross pattern below.

Use each disc **once** so that the total across is the same as the total down.

One has been done for you.



14

1 mark

Total out of 3 \_\_\_\_\_

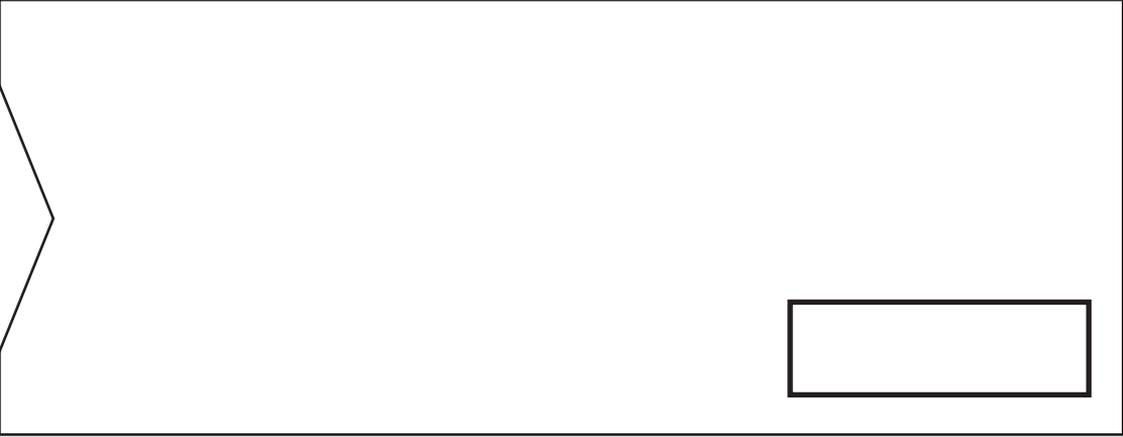
15

Megan wants to fill a bucket with water.

A bucket holds 6 litres.

A jug holds 500 millilitres.

How many jugs of water does Megan need to fill an empty bucket?



Show your method

15i

15ii

2 marks

16

Write in the missing number.



$$164.5 - \boxed{\phantom{000}} = 76.88$$

16

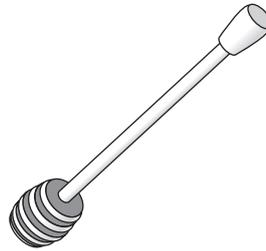
1 mark

17

A shop sells jars of honey and honey dippers.



jar of honey



honey dipper

Chen bought **three** jars of honey and a dipper.

The total cost was £5.40

The dipper cost 75p.

How much did each jar of honey cost?



Show  
your  
method

17i

17ii

2 marks

Total out of 5 \_\_\_\_\_

18

Write the two missing digits in this multiplication.



$$\boxed{\phantom{0}}9 \times \boxed{\phantom{0}}9 = 2001$$

18

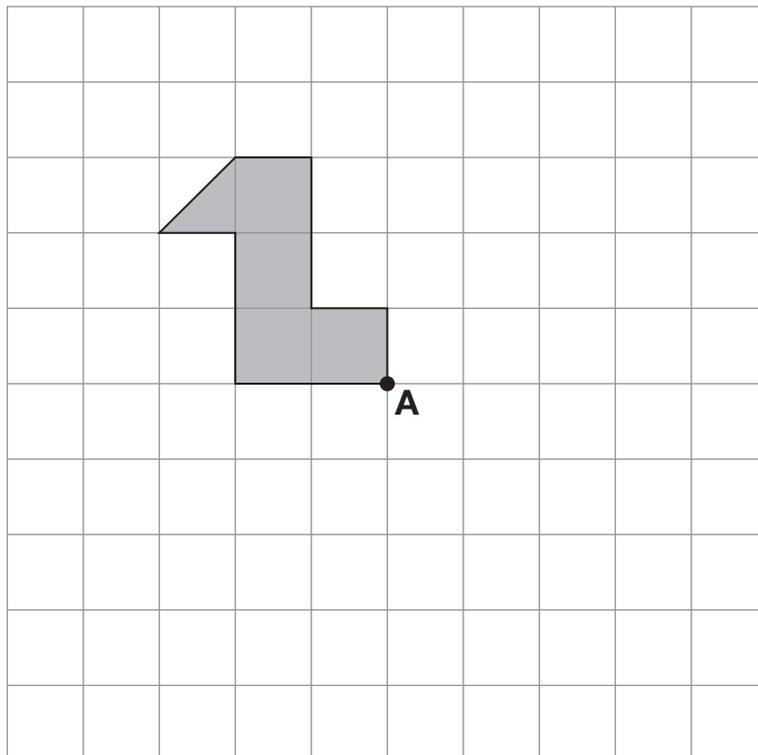
1 mark

19

Here is a shaded shape drawn on a square grid.

The shape is rotated 180° about point A.

Draw the shape in its new position on the grid.



19i

19ii

2 marks

20

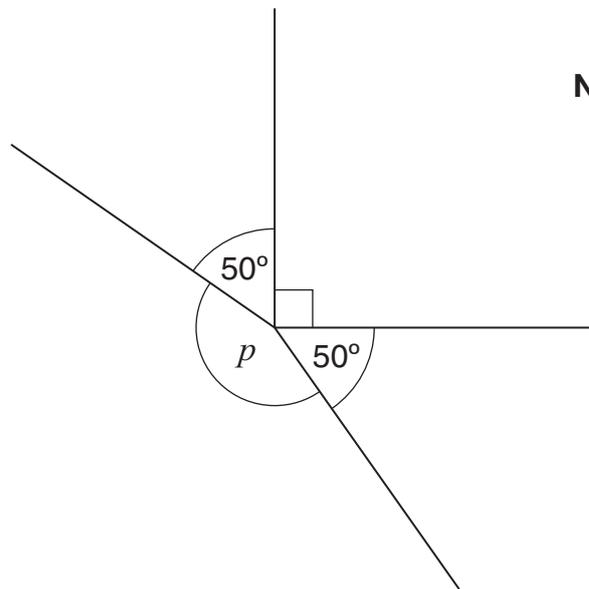
Calculate  $(47.9 + 71.8) \div (6.65 \times 2)$



20

1 mark

21



Not to scale

Calculate the size of angle  $p$  in the diagram.

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



Show  
your  
method

21i

21ii

2 marks

Total out of 6

A shop sells rolls of wire.



roll A



roll B

Two rolls, A and B, each have 45 metres of wire on them.

The wire on roll A is cut into 1.25m lengths.

The wire on roll B is cut into 2.25m lengths.

How many **more** lengths of wire are cut from roll A than roll B?



Show  
your  
method

22i

22ii

2 marks

23

36 and 64 are both square numbers.

They have a sum of 100

Find two **square** numbers that have a sum of **130**



and

23

1 mark

24

364 is a multiple of 7 but not a multiple of 3

384 is a multiple of 3 but not a multiple of 7

Find a number between 364 and 384 that is **both** a multiple of 7 **and** a multiple of 3



Show  
your  
method

24i

24ii

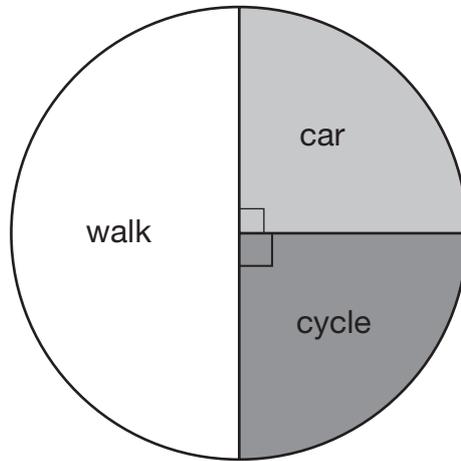
2 marks

Total out of 5 \_\_\_\_\_

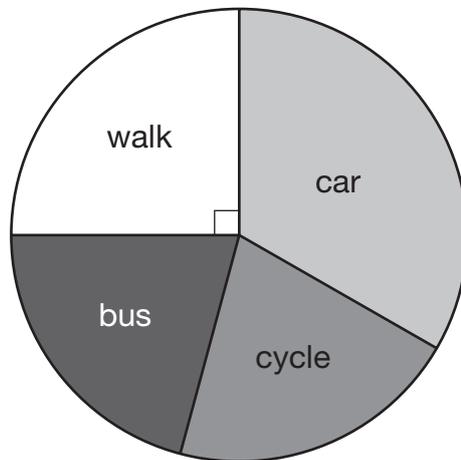
Megan asked children from two different schools,

***'How do you travel to school?'***

Here are her results.



Foxwood school  
**80** children



Midtown school  
**240** children

Megan says,

***'The number of children walking to Foxwood school is more than the number walking to Midtown school.'***

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

 Yes / No

Explain how you know.



25a

1 mark

At Midtown school, one third of children travel by car.

The number of children who cycle is the same as the number who go on the bus.

How many children **cycle** to Midtown school?



Show  
your  
method

25bi

25bii

2 marks

Total out of 3 \_\_\_\_\_



Standards  
& Testing  
Agency

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