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 look like this:

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

For these questions you may get a mark for showing your working.
Each card on the left matches one on the right.

Draw lines to match the cards which are equal in value.

One has been done for you.

- $3 \times 6$ matches $2 \times 25$
- $10 \times 5$ matches $9 \times 2$
- $5 \times 8$ matches $50 \times 2$
- $9 \times 10$ matches $3 \times 30$
- $5 \times 20$ matches $10 \times 4$
Write in the missing numbers.

\[
150 + \boxed{} = 500
\]

\[
172 - \boxed{} = 60
\]

Here is a jigsaw with one piece missing.

Which one of the pieces below fits the hole in the middle?
Write each of these numbers in its correct place on the sorting diagram.

40  8  15

multiples of 5

25

multiples of 2

30

Calculate $369 + 251$
A shop sells batteries in packs of four and packs of two.

Simon and Nick want two batteries each. 
They buy a pack of four and share the cost equally.

How much does each pay?

Mary buys 2 packs of two batteries. 
Hamid buys 1 pack of four.

How much more does Mary pay than Hamid?

Show your working. You may get a mark.
This table shows the numbers of children who went walking, sailing or climbing at an outdoor centre.

<table>
<thead>
<tr>
<th></th>
<th>May</th>
<th>June</th>
<th>July</th>
</tr>
</thead>
<tbody>
<tr>
<td>walking</td>
<td>25</td>
<td>80</td>
<td>75</td>
</tr>
<tr>
<td>sailing</td>
<td>15</td>
<td>42</td>
<td>50</td>
</tr>
<tr>
<td>climbing</td>
<td>18</td>
<td>27</td>
<td>23</td>
</tr>
</tbody>
</table>

How many children went sailing in May, June and July altogether?

How many more children went walking in June than climbing in June?
These are the temperatures in York and Rome on a day in winter.

How many degrees **colder** is it in York than in Rome?

On another day, the temperature in York is **4°C**

Rome is **7 degrees colder** than York.

What is the temperature in **Rome**?
Here are some shaded shapes on a grid.

Which **three** shapes have **reflective symmetry**?

You may use a mirror or tracing paper.
A camping shop sells tents, sleeping bags and backpacks. This chart shows how many of each they sold in June.

**Items sold in June**

<table>
<thead>
<tr>
<th></th>
<th>is 4 tents</th>
<th>is 4 sleeping bags</th>
<th>is 4 backpacks</th>
</tr>
</thead>
<tbody>
<tr>
<td>tents</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>sleeping bags</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>backpacks</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The shop had 20 sleeping bags at the **beginning of June**.

How many of these sleeping bags did the shop have left at the **end of June**?

In **July**, the shop sold three times as many tents as in June.

How many tents did the shop sell in **July**?
Circle **two** numbers which **add** to make **0.12**

0.1 0.5 0.05 0.7 0.07 0.2

Leon and Sara each started with **different** numbers.

Leon

I **added 5** to my number.

Sara

I **subtracted 8** from my number.

Leon and Sara both get the **same** answer.

What numbers could they have started with?

Leon [ ] Sara [ ]
13. Calculate \( \frac{3}{4} \) of 840

14. This spinner is divided into nine equal sections.

Which two different numbers on the spinner are equally likely to come up?

Meera says,

‘2 has a greater than even chance of coming up’.

Explain why she is correct.
Peanuts cost **60p for 100 grams**.

What is the cost of **350 grams** of peanuts?

Raisins cost **80p for 100 grams**.

Jack pays **£2** for a bag of raisins.

How many **grams of raisins** does he get?
Kim has some rectangular tiles. Each one is 4 centimetres by 9 centimetres.

She makes a design with them.

Calculate the width and height of her design.

width = cm  
height = cm
Tony and Gemma looked for snails, worms, slugs and beetles in their gardens.

They each made a pie chart of what they found.

Tony’s pie chart

- worms
- snails
- slugs
- beetles

Total 80

Gemma’s pie chart

- worms
- snails
- beetles
- slugs

Total 36

Estimate the number of worms that Tony found.

[Blank]

Who found more snails? Circle Tony or Gemma.

Tony / Gemma

Explain how you know.

............................................................

............................................................

............................................................

............................................................
Circle two different numbers which multiply together to make **1 million**.

Circle two different numbers which multiply together to make **1 million**.

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>100</td>
<td>1000</td>
<td>10000</td>
<td>100000</td>
</tr>
</tbody>
</table>

Liam has two rectangular tiles like this.

He makes this L shape.

What is the **perimeter** of Liam’s L shape?

5cm

11cm
This sequence of numbers goes up by 40 each time.

40  80  120  160  200  ...

This sequence continues.

Will the number 2140 be in the sequence? Circle Yes or No.

Yes / No

Explain how you know.

Calculate 8.6 – 3.75

8.6 – 3.75 = 4.85

21 1 mark
The shaded triangle is a reflection of the white triangle in the mirror line.

Write the **co-ordinates** of point **A** and point **B**.

A is ( , )

B is ( , )

Leila knows that

\[ 65 \times 3 = 195 \]

Explain how she can use this information to find the answer to this multiplication:

\[ 165 \times 3 \]