Paper 1
Calculator **not** allowed

<table>
<thead>
<tr>
<th>First name</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Middle name</td>
<td></td>
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<tr>
<td>Last name</td>
<td></td>
</tr>
<tr>
<td>Date of birth</td>
<td>Day</td>
</tr>
<tr>
<td>School name</td>
<td></td>
</tr>
<tr>
<td>DfE number</td>
<td></td>
</tr>
</tbody>
</table>
Instructions

You may not use a calculator to answer any questions in this paper.

Work as quickly and as carefully as you can.

You have 30 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 white space on a page.
Do not write over any barcode.

Some questions have an answer box like this:

Show your working

For these questions you may get a mark for showing your working.
1 The number 7.5 is halfway between 5 and 10

Write in the missing numbers.

- Between 3.8 and 6
- Between -2 and 1

1 mark 1 mark
Two companies sell toys online. They charge to deliver.

Describe the delivery cost of the second company.

The first company is done for you.

The more a toy costs, the more the delivery costs.

1 mark
In this tower, two numbers are **multiplied** to give the number above.

Write the missing numbers in the tower below to make it correct.

![Diagram of a number tower with missing numbers]
200 girls and 100 boys were asked about their favourite meal.

These pie charts show the results.

Look at the pie charts.

For each statement put a tick (✓) if it is true or a cross (✗) if it is false.

Three-quarters of the boys chose fish and chips.  

Three times as many boys as girls chose fish and chips.  

Altogether, half of the children chose fish and chips.  

25 more boys than girls chose fish and chips.
The scatter graph shows the test results for nine children. Each letter stands for one child.

(a) What is the range of history marks for these children?

(b) What is the median geography mark for these children?
Here is an equation.

\[ k = 100 - 4n \]

(a) Find the value of \( k \) when \( n = 60 \)

\[ k = \]

1 mark

(b) Find the value of \( n \) when \( k = 99 \)

\[ n = \]

1 mark
Anna has 10 number cards in a bag.

She is going to take out one of the cards at random.

(a) The probability that the number will be a factor of 14 is \( \frac{3}{10} \).

Explain why.

(b) Using the same number cards complete the sentence below.

The probability that the number will be a factor of _________ is \( \frac{2}{5} \)
Megan uses four cubes to make this cuboid.

Then she takes one cube away, leaving the other cubes where they are.

Draw what the new shape could be.
20% of the children in a sports club play tennis.

25% of the children who play tennis also play rounders.

There are 8 children in the club who play both tennis and rounders.

How many children are there in the sports club altogether?

Show your working

2 marks
Use three of these fraction cards to complete the sum below.

\[
\boxed{\phantom{\text{fraction}}} + \boxed{\phantom{\text{fraction}}} + \boxed{\phantom{\text{fraction}}} = \frac{1}{2}
\]

1 mark
The **area** of this square is 36 cm$^2$.

The square is cut into quarters to create 4 identical rectangles.

What is the **perimeter** of one of the small rectangles?
Anna has four **different** triangles.

Complete the table to show the size of the angles in each triangle.

<table>
<thead>
<tr>
<th>Type of triangle</th>
<th>Angle 1</th>
<th>Angle 2</th>
<th>Angle 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isosceles</td>
<td>90°</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Right-angled</td>
<td>80°</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Isosceles</td>
<td>70°</td>
<td></td>
<td></td>
</tr>
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</tr>
</tbody>
</table>

2 marks
The graph shows the heights of 28 children in Alfie’s class, to the nearest centimetre.

Alfie is 153 cm tall.

He says,

‘Only one person in my class is taller than I am.’

Emma says,

‘You can’t tell this from the graph.’

Explain why Emma is correct.
Solve this equation.

\[ 7y + 12 = 5y + 40 \]

Show your working

\[ y = \]
[END OF TEST]

Please do not write on this page.