Mathematics tests

Subject-specific guidance

Paper 2

Paper 2: Calculator

- One hour

Key points

You should:

- ensure that pupils have the correct test paper, for the correct tier, i.e. either tier 3–5, 4–6, 5–7 or 6–8
- ensure that pupils have the equipment listed on the front cover of the relevant test.
  They should have a calculator and for tiers 5–7 and 6–8 this should be a scientific calculator
- ensure that pupils write their name and the name of the school in the spaces provided on the front cover of their test paper
- draw pupils’ attention to the ‘Remember’ section on the front cover of the test paper, to the instructions on page 2, and, where appropriate, to the formulae on page 2
- inform pupils that they may ask questions during the test if they have any queries
- give pupils appropriate time reminders during the test.

During this test you should note the following:

Mathematical notation

In cases where a pupil asks for clarification of the mathematical symbols or notation used in a question, you may read these to the pupil but you should not indicate the operation or process involved. For example:

- \(-4x\) minus/negative four \(x\) \(\text{(not minus/negative four times } x)\)
- \(x^2\) \(x\) squared \(\text{(not } x\text{ times } x \text{ or } x\text{ times itself)}\)
- \(10^4\) ten to the power (of) four \(\text{(not 10 000 or 10 \times 10 \times 10 \times 10)}\)
- \(\%\) per cent \(\text{(not out of every hundred)}\)
- \(4(t−1)^2\) four open bracket, \(t\) minus one, close bracket, squared \(\text{(not } t\text{ minus one all squared, times four)}\)
Pointing out given information

At a pupil’s request, you may point to information on the test paper such as charts, diagrams, statements and equations but you should not explain the information nor help the pupil by interpreting it.

Unfamiliar contexts

If an everyday context or words related to the context of a question are unfamiliar to a pupil, you may show them related objects or pictures, or describe the context or related objects.

Other words that can be clarified

Some other words and phrases may be explained to pupils because they are not part of the mathematical understanding being assessed for that question. The words and phrases for paper 2 that may be explained are set out below and some paraphrases are suggested.

<table>
<thead>
<tr>
<th>Paper 2</th>
<th>3–5</th>
<th>4–6</th>
<th>5–7</th>
<th>6–8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hibernation</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Fitting tiles</td>
<td>9</td>
<td>2</td>
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<tr>
<td>Fir trees</td>
<td>23</td>
<td>16</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Solving</td>
<td>27</td>
<td>20</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>Values</td>
<td>27</td>
<td>18</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Two semicircles</td>
<td>26</td>
<td>15</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subtracting and squaring</td>
<td></td>
<td>21</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Word or phrase</th>
<th>Suggested paraphrase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hibernation</td>
<td>Shaded Coloured in</td>
</tr>
<tr>
<td>Fitting tiles</td>
<td>Congruent Same size and shape</td>
</tr>
<tr>
<td>Fir trees</td>
<td>Average heights Typical heights</td>
</tr>
<tr>
<td>Solving</td>
<td>Solve Work out the answers to</td>
</tr>
<tr>
<td>Values</td>
<td>Value What number the letter stands for</td>
</tr>
<tr>
<td>Two semicircles</td>
<td>Shaded Calculate Coloured in</td>
</tr>
<tr>
<td>Subtracting and squaring</td>
<td>Algebraic method Use algebra to solve</td>
</tr>
</tbody>
</table>

Questions that must not be enlarged

<table>
<thead>
<tr>
<th>Paper 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>There are no questions in paper 2 that cannot be enlarged.</td>
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</tbody>
</table>