

# Cambridge Primary Checkpoint

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**MATHEMATICS**

**0096/01**

Paper 1

**April 2023**

MARK SCHEME

Maximum Mark: 40

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## **Published**

This mark scheme is published as an aid to teachers and candidates, to indicate the requirements of the examination. It shows the basis on which Markers were instructed to award marks. It does not indicate the details of the discussions that took place at a Markers' meeting before marking began, which would have considered the acceptability of alternative answers.

Mark schemes should be read in conjunction with the question paper and the End of Series Report. Cambridge will not enter into discussions about these mark schemes.

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This document has **12** pages. Any blank pages are indicated.

**Mark scheme annotations and abbreviations**

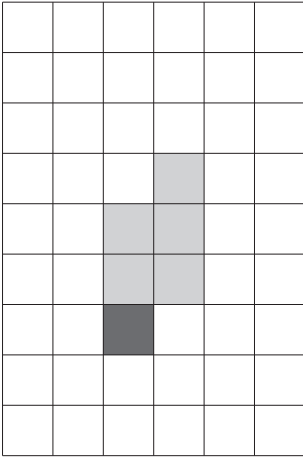
|           |                            |
|-----------|----------------------------|
| <b>M1</b> | method mark                |
| <b>A1</b> | accuracy mark              |
| <b>B1</b> | independent mark           |
| <b>FT</b> | follow through after error |
| dep       | dependent                  |
| oe        | or equivalent              |
| cao       | correct answer only        |
| isw       | ignore subsequent working  |
| soi       | seen or implied            |

| Question | Answer         | Marks | Part Marks | Guidance   |
|----------|----------------|-------|------------|--|
| 1(a)     | 815            | 1     |            |  |
| 1(b)     | 43             | 1     |            |  |
| 2        | 10 (cm)        | 1     |            |  |
| 3        | 150 (minutes)  | 1     |            |  |
| 4        | $1\frac{1}{6}$ | 1     |            | Accept equivalent answers.<br>Accept 0.17 or better. |
| 5        | 240(°)         | 1     |            | Accept answers between 238<br>and 242(°).            |
| 6(a)     | 21             | 1     |            | Accept any clear indication.                         |
| 6(b)     | 2              | 1     |            | Accept any clear indication.                         |

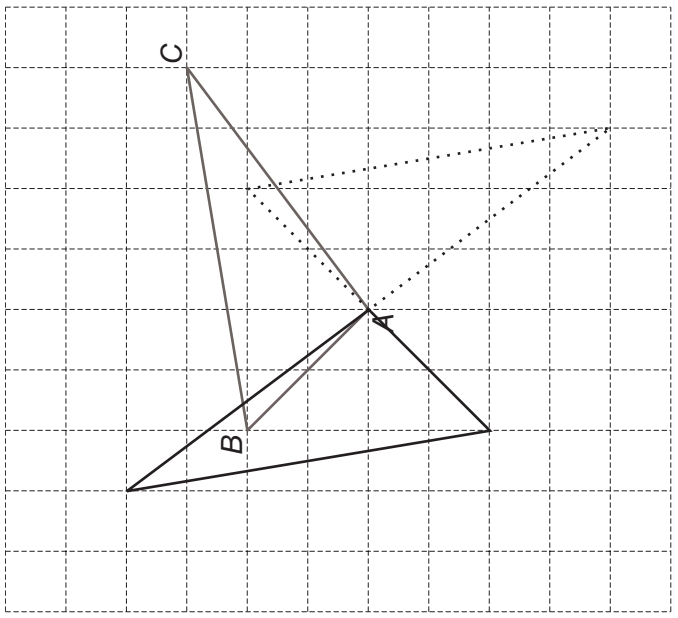
| Question | Answer | Marks | Part Marks | Guidance   |
|----------|--------|-------|------------|--|
| 7(a)     |        | 1     |            | Accept any clear indication.                           |
| 7(b)     |        | 1     |            | Accept any clear indication.                           |
| 8        | -35    | 1     |            | Do not accept 35–                                      |
| 9(a)     | 12     | 1     |            | Do not accept improper fractions except $\frac{12}{1}$ |
| 9(b)     | 36     | 1     |            | Do not accept improper fractions except $\frac{36}{1}$ |

| Question | Answer  | Marks | Part Marks                                    | Guidance |
|----------|---|-------|---|----------|
| 10(a)    | 154.773   | 1     |   |          |
| 10(b)    | 13.212  | 1     |   |          |
| 11       | $6.2 \div \boxed{10} \div \boxed{10} = 6.2 \times 10 \div \boxed{1000}$ | 1     |   |          |
| 12       |   | 2     | Award 1 mark for three or four correct lines. |          |

| Question | Answer | Marks | Part Marks | Guidance |
|----------|--------|-------|------------|----------|
|----------|--------|-------|------------|----------|

|                 |   |                 |   |                 |      |      |      |   |   |   |                                     |  |  |  |    |    |                          |  |  |  |    |    |                          |  |  |  |    |   |                                     |  |  |  |   |    |                          |  |  |   |  |
|-----------------|---|-----------------|---|-----------------|------|------|------|---|---|---|-------------------------------------|--|--|--|----|----|--------------------------|--|--|--|----|----|--------------------------|--|--|--|----|---|-------------------------------------|--|--|--|---|----|--------------------------|--|--|---|--|
| 13              |    | 1               | Award the mark for the correct square shaded. |                 |      |      |      |   |   |   |                                     |  |  |  |    |    |                          |  |  |  |    |    |                          |  |  |  |    |   |                                     |  |  |  |   |    |                          |  |  |   |  |
| 14              | <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;"></td> <td style="width: 15%; text-align: center;"><b>A</b></td> <td style="width: 15%; text-align: center;"><b>B</b></td> <td style="width: 15%;"></td> <td style="width: 15%;"></td> <td style="width: 15%;"></td> </tr> <tr> <td></td> <td style="text-align: center;">17</td> <td style="text-align: center;">3</td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td></td> <td></td> </tr> <tr> <td></td> <td style="text-align: center;">14</td> <td style="text-align: center;">12</td> <td style="text-align: center;"><input type="checkbox"/></td> <td></td> <td></td> </tr> <tr> <td></td> <td style="text-align: center;">24</td> <td style="text-align: center;">-4</td> <td style="text-align: center;"><input type="checkbox"/></td> <td></td> <td></td> </tr> <tr> <td></td> <td style="text-align: center;">11</td> <td style="text-align: center;">9</td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td></td> <td></td> </tr> <tr> <td></td> <td style="text-align: center;">8</td> <td style="text-align: center;">12</td> <td style="text-align: center;"><input type="checkbox"/></td> <td></td> <td></td> </tr> </table> |                 | <b>A</b>                                      | <b>B</b>        |      |      |      |   | 17  | 3 | <input checked="" type="checkbox"/> |  |  |  | 14 | 12 | <input type="checkbox"/> |  |  |  | 24 | -4 | <input type="checkbox"/> |  |  |  | 11 | 9 | <input checked="" type="checkbox"/> |  |  |  | 8 | 12 | <input type="checkbox"/> |  |  | 2 | Award 1 mark for one line correct and no others indicated<br><b>or</b><br>two lines correct and one incorrect. |
|                 | <b>A</b>  | <b>B</b>        |   |                 |      |      |      |   |   |   |                                     |  |  |  |    |    |                          |  |  |  |    |    |                          |  |  |  |    |   |                                     |  |  |  |   |    |                          |  |  |   |  |
|                 | 17  | 3               | <input checked="" type="checkbox"/>           |                 |      |      |      |   |   |   |                                     |  |  |  |    |    |                          |  |  |  |    |    |                          |  |  |  |    |   |                                     |  |  |  |   |    |                          |  |  |   |  |
|                 | 14  | 12              | <input type="checkbox"/>                      |                 |      |      |      |   |   |   |                                     |  |  |  |    |    |                          |  |  |  |    |    |                          |  |  |  |    |   |                                     |  |  |  |   |    |                          |  |  |   |  |
|                 | 24  | -4              | <input type="checkbox"/>                      |                 |      |      |      |   |   |   |                                     |  |  |  |    |    |                          |  |  |  |    |    |                          |  |  |  |    |   |                                     |  |  |  |   |    |                          |  |  |   |  |
|                 | 11  | 9               | <input checked="" type="checkbox"/>           |                 |      |      |      |   |   |   |                                     |  |  |  |    |    |                          |  |  |  |    |    |                          |  |  |  |    |   |                                     |  |  |  |   |    |                          |  |  |   |  |
|                 | 8   | 12              | <input type="checkbox"/>                      |                 |      |      |      |   |   |   |                                     |  |  |  |    |    |                          |  |  |  |    |    |                          |  |  |  |    |   |                                     |  |  |  |   |    |                          |  |  |   |  |
| 15              | <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%; text-align: center;"><math>12 \times 700</math></td> <td style="width: 33%; text-align: center;"><math>123 \times 70</math></td> <td style="width: 33%; text-align: center;"><math>1234 \times 7</math></td> </tr> <tr> <td style="text-align: center;">8400</td> <td style="text-align: center;">8610</td> <td style="text-align: center;">8638</td> </tr> </table>  | $12 \times 700$ | $123 \times 70$                               | $1234 \times 7$ | 8400 | 8610 | 8638 | 1 | Award 2 marks for both correct and none incorrect.<br><br>Accept<br>8400    8610    8638<br>The products, if written on the answer line, must be correct. |   |                                     |  |  |  |    |    |                          |  |  |  |    |    |                          |  |  |  |    |   |                                     |  |  |  |   |    |                          |  |  |   |  |
| $12 \times 700$ | $123 \times 70$   | $1234 \times 7$ |   |                 |      |      |      |   |   |   |                                     |  |  |  |    |    |                          |  |  |  |    |    |                          |  |  |  |    |   |                                     |  |  |  |   |    |                          |  |  |   |  |
| 8400            | 8610  | 8638            |   |                 |      |      |      |   |   |   |                                     |  |  |  |    |    |                          |  |  |  |    |    |                          |  |  |  |    |   |                                     |  |  |  |   |    |                          |  |  |   |  |

| Question | Answer | Marks | Part Marks | Guidance |
|----------|--------|-------|------------|----------|
|----------|--------|-------|------------|----------|

|    |  |   |   |  |
|----|--|---|---|--|
| 16 | (2, 1) (7, 2) (2, 2) (8, 2) (2, 6)   | 1 |   | All three required for the mark.<br>Accept any clear indication. |
| 17 | 17   | 1 |   | Accept slight inaccuracies as long as the intention is clear.    |
| 18 |  | 2 | Award 1 mark for 90 degree rotation in wrong direction shown by dotted line.<br><b>or</b><br>for rotation anticlockwise with A corresponding to A' and one of the vertices B' or C' correct and the three points joined to form a triangle. |  |

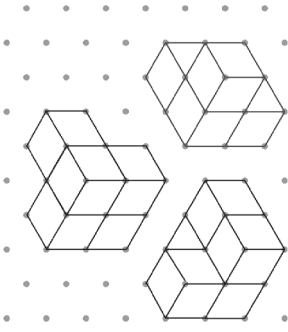
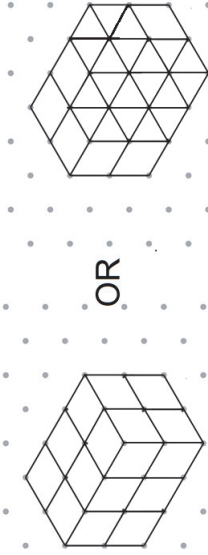
| Question | Answer | Marks | Part Marks | Guidance |
|----------|--------|-------|------------|----------|
|----------|--------|-------|------------|----------|

| 19       | 32.783  | 1     |            | Allow $32\frac{783}{1000}$ or equivalent.   |
|----------|---|-------|------------|---|
| 20       | <p>2 identical scalene triangles <input checked="" type="checkbox"/></p> <p>2 identical equilateral triangles <input type="checkbox"/></p> <p>2 different isosceles triangles <input checked="" type="checkbox"/></p> <p>2 different equilateral triangles <input type="checkbox"/></p> | 1     |            | <p>Award 1 mark for both correct and no incorrect responses.</p> <p>Accept any clear indication.</p>  |
| 21       | <p>Any data that changes over time<br/>e.g.<br/>Ice cream sales on different days in July<br/>or<br/>Temperature at different times of the day<br/>or</p> <p>Any data that changes over a different continuum, e.g. temperature</p>   | 1     |            | <p>Their example must include changes over time or changes over the continuum they use.<br/>e.g.<br/>Do not accept ice cream sales without mention of the time.</p> <p>Allow any inference of a variable plotted against time or temperature etc.</p> |
| 22       | <p><input type="text" value="3"/> . <input type="text" value="a"/> <input type="text" value="b"/></p> <p>with <math>a = 0, 1, 2, 3, 4</math> and <math>b = 5, 6, 7, 8, 9</math></p>   | 1     |            | Both boxes must contain a digit.  |
| Question | Answer  | Marks | Part Marks | Guidance  |



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|       |                       |   |   |                              |
|-------|-----------------------|---|---|------------------------------|
| 23    | -0.2                  | 2 | Award 1 mark for sight of 0.3 as the difference between the terms<br><b>or</b><br>1.2 ÷ 4 = wrong answer<br><b>or</b><br>At least three of the missing terms from<br><b>1.9 (1.6) 1.3, 1, 0.7, (0.4), 0.1</b> | Do not accept 0.2–           |
| 24(a) | 12                    | 1 |   |                              |
| 24(b) | impossible<br>certain | 1 |   | Accept any clear indication. |

| Question | Answer   | Marks    | Part Marks  | Guidance  |
|----------|--|----------|---|---|
| 25       | <p>The correct shape in any orientation.<br/>e.g.</p>  <p><b>or</b></p> <p>Completing the required cuboid (possibly in the original drawing)</p> <p>i.e.</p>  | <b>2</b> | Award 1 mark for <b>any</b> shape with 5 cubes that is drawn correctly using isometric paper. | Accept slight inaccuracies if the intention is clear. |
| 26       | Any four even numbers with a digit sum that is a multiple of 3   | <b>1</b> |   |   |

| Question | Answer  | Marks    | Part Marks | Guidance   |   |   |   |   |          |  |                 |
|----------|---|----------|------------|--|---|---|---|---|----------|--|-----------------|
| 27(a)    | 2, 5 and 23<br>in any order<br><b>or</b><br>2, 11 and 17<br>in any order  | <b>1</b> |            |  |   |   |   |   |          |  |                 |
| 27(b)    | <b>2 and</b> an explanation that there are not 3 even prime numbers so it must be two odd numbers and one even number.<br>e.g.<br>2 is the only even prime number but if I use 3 other primes then the answer is odd.<br><b>or</b><br>any explanation that alludes to needing an even number when adding three prime numbers with a total of 30 ( $O + O + E = E$ ). 2 is the only even prime so it has to be included<br><b>or</b><br><b>2 and</b> an explanation that 2, 5 and 23 <b>and</b> 2, 11 and 17 are the only possible answers and 2 is in both.   | <b>1</b> |            | If explaining that 2 is in both possible answers then 2, 5, 23 and 2, 11, 17 <b>must</b> be seen.<br>They may be listed in part (a) or (b) |   |   |   |   |          |  |                 |
| 28       | <table border="1" style="display: inline-table; vertical-align: middle;"> <tr> <td style="width: 20px; height: 20px; text-align: center;">8</td> <td style="width: 20px; height: 20px; text-align: center;">6</td> <td style="width: 20px; height: 20px; text-align: center;">7</td> <td style="width: 20px; height: 20px; text-align: center;">-</td> <td style="width: 20px; height: 20px; text-align: center;">1</td> <td style="width: 20px; height: 20px; text-align: center;">3</td> <td style="width: 20px; height: 20px; text-align: center;">5</td> </tr> </table><br><small>= largest even answer</small> | 8        | 6          | 7  | - | 1 | 3 | 5 | <b>1</b> |  | Allow 887 - 111 |
| 8        | 6   | 7        | -          | 1  | 3 | 5 |   |   |          |  |                 |

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