Q1. (a) Here is a right-angled triangle.


Mark the right angle with a letter R .
(b) Here is a trapezium.


Mark an acute angle with a letter $A$.
(c) On the grid, draw a kite.


Q2.

(a) Write down the special name for this quadrilateral.
$\qquad$
(b) Measure the size of the angle marked $X$.
$\qquad$ .
(c) Write down the special name for the angle marked $y$.

Q3.


Diagram NOT accurately drawn
$A B$ is a straight line.
(a) This diagram is wrong.

Explain why.
$\qquad$


Diagram NOT accurately drawn
(b) Work out the size of the angle marked $x$.

Q4. (a) Write down the mathematical name of each of these quadrilaterals.
(i)

(ii)

(i)
(ii)
(b) What type of angle is this?


Q5. (a) On the grid, draw a kite.

(b) Here is a quadrilateral.


Write down the special name of this quadrilateral.

Q6. Here is a diagram of a cuboid.


Diagram NOT accurately drawn
(a) Write down the number of edges of the cuboid.
(b) Calculate the volume of the cuboid.

Q7. Here are five shapes.

A

B

C

D

E

One of these shapes is a parallelogram.
(a) Write down the letter of this shape.

One of these shapes has exactly two lines of symmetry.
(b) Which shape?
(c) Write down the order of rotational symmetry of shape $\mathbf{C}$.

M1.

|  | Answer | Mark | Additional Guidance |
| :---: | :---: | :---: | :--- |
| (a) | right angle marked | 1 | B1 for the right angle marked with square or R |
| (b) | acute angle marked | 1 | B1 for either (or both) of the acute angles marked |
| (c) | kite drawn | 1 | B1 for a kite drawn <br> (accept square or rhombus or arrowhead) |
| Total for Question: 3 marks |  |  |  |

M2.

|  | Answer | Mark | Additional Guidance |  |
| :---: | :---: | :---: | :--- | :--- |
| (a) | Trapezium | 1 | B1 |  |
| (b) | 60 | 1 | B1 for $60 \pm 2$ |  |
| (c) | obtuse | 1 | B1 |  |
| Total for Question: 3 marks |  |  |  |  |

M3.

|  | Working | Answer | Mark | Additional Guidance |
| :--- | :---: | :---: | :---: | :---: |
| (a) | "angles on a <br> line sum to <br> $180^{\circ}$ " | 1 | B1 for angles on a line sum to $180^{\circ}$, <br> $180,120+50=170$ etc |  |
| (b) $360-(70+130+100)$ | 60 | 2 | M1 for $360-(70+130+100)$ <br> A1 cao |  |
| Total for Question: 3 marks |  |  |  |  |

M4.

|  | Answer | Mark | Additional Guidance |  |
| :--- | :---: | :---: | :--- | :---: |
| (a)(i) | Trapezium | 2 | B1 Trapezium. Accept misspelling as long as the <br> word given is still recognisable. |  |
| (ii) | Parallelogram |  | B1 Parallelogram. Accept misspelling as long as <br> the word given is still recognisable. |  |
| (b) | Acute | 1 | B1 cao |  |
| Total for Question: 3 marks |  |  |  |  |

M5.

|  | Answer | Mark | Additional Guidance |
| :---: | :---: | :---: | :--- |
| (a) | Kite drawn | 1 | B1 Accept a rhombus, square, etc. |
| (b) | Parallelogram | 1 | B1 |

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M6.

|  | Answer | Mark | Additional Guidance |
| :--- | :---: | :---: | :--- |
| (a) | 12 | 1 | B1 cao |
| (b) | $200 \mathrm{~cm}^{3}$ | 3 | M1 for $10 \times 4 \times 5$ <br> A1 cao <br> B1 (indep) for $\mathrm{cm}^{3}$ |
| Total for Question: 4 marks |  |  |  |

M7.

|  | Answer | Mark | Additional Guidance |  |
| :--- | :---: | :---: | :--- | :--- |
| (a) | C | 1 | B1 cao |  |
| (b) | D | 1 | B1 cao |  |
| (c) | 2 | 1 | B1 cao |  |
| Total for Question: 3 marks |  |  |  |  |

E1. Most parts of this question were well attempted, errors coming from not understanding the technical terms. For example in part (b) a minority of candidates marked obtuse angles. In part (c) it was important to draw a shape in which examiners could identify two pairs of sides that were approximately the same length, but those candidates who failed to use the grid as a guide, or whose diagrams were so roughly drawn failed to make this clear.

E2. This question was the first on the paper where a significant number of candidates did not give an answer to one or more parts. The shape was named correctly by $48 \%$ of candidates. Of those candidates who failed to gain a mark here, the majority stated that the shape was a parallelogram. $78 \%$ of candidates scored the mark for measuring the size of the angle marked $x$ and $55 \%$ of candidates could correctly identify the angle marked $y$ as an obtuse angle. Incorrect spellings were accepted in all cases where the candidate's intention was clear and the answer unambiguous. Answers such as "obcute", "obstute", and "abcute" were not uncommon.

E3. Although small numbers of candidates either left this question unanswered or merely repeated statements from the question, for example that the angles were not drawn accurately, the great majority of candidates could offer a clear and accurate explanation in part (a). It was good to see a high rate of success in part (b) with over three quarters of candidates gaining both marks. Common incorrect answers included $75^{\circ}$, apparently found by measuring the angle and $160^{\circ}$ from those candidates who made an arithmetic error in their calculation and $180^{\circ}$ from those candidates under the illusion that the sum of the angles in a quadrilateral is $380^{\circ}$.

E4. There were predictably many confused spellings associated with naming the shapes;
examiners did not penalise incorrect spelling unless it led to ambiguity. Overall this question was not well answered, with many incorrect names given for the shapes. Part (b) was better answered, with about $2 / 3$ of the candidates naming the angle correctly. The most common error was in naming it as an obtuse angle.

Many candidates drew a kite, though a square or rhombus was also a popular shape drawn. In most cases the shape was drawn freehand. In part (b) it was not common for the correct name; trapezium, square, rhombus were regularly seen.

It was clear that many candidates mis-read the question, since " 8 " for the number of vertices or " 6 " for the number of sides were commonly seen. Some only counted the bold (seen) edges. In part (b) there were some attempts at finding the surface area, or the total of the edges $(5+4+100)$. Many stated " $10 \times 4 \times 5$ " but again poor arithmetic then resulted in the wrong answer. There was also a units mark for this question, but many candidates failed to spot that the units were needed, or perhaps were not used to giving them anyway. When the units were stated cm or cm 2 were more commonly seen than $\mathrm{cm}^{3}$.

This was a question which tested geometrical knowledge. For many all three marks were gained.

