

Worked Examples

Properties of Shape

Year 3

Instructions

A pupil has been given a set of questions to answer. They tried their best but think they have got some answers wrong.

Go through the work and check the answers. Help the pupil to understand their errors by explaining where they have gone wrong or how to find the correct answer (there are prompts below the questions to help you).

Note that you will not always be asked to provide the correct answer.

1 Circle the correct answer in each sentence.



This shape has two **vertical** / **horizontal** lines.

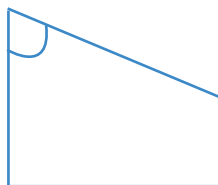
This shape has two pairs of **parallel** / **perpendicular** lines.

This shape has **some** / **no** right-angles.

The answers are: ☐ Correct ☐ Incorrect

If incorrect, explain why the answers are incorrect.

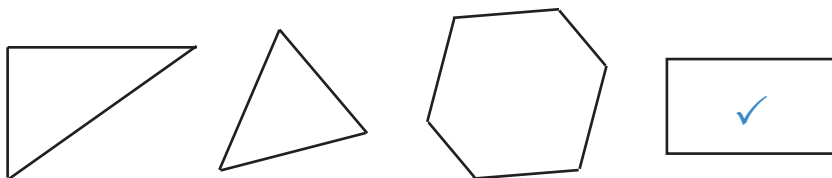
- 2 Draw a quadrilateral with one acute angle.



This answer is: ☐ Correct ☐ Incorrect

Explain what an acute angle is.

- 3 Tick the shapes with at least one right-angle.



This answer is: ☐ Correct ☐ Incorrect

If incorrect, explain the error.

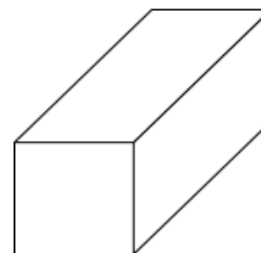
- 4 The arrow starts in the position shown. It makes a quarter turn clockwise. Draw where the arrow ends.



This answer is: ☐ Correct ☐ Incorrect

If incorrect, what should the answer be? Explain.

- 5 Complete the sentence.
The cuboid has faces, edges and vertices.



The answers are: ☐ Correct ☐ Incorrect

If incorrect, what should the answers be? Explain.

Answers

Q no.	Question	Correct/ Incorrect	Error/ Additional Guidance
1	Circle the correct answer in each sentence. Vertical, perpendicular, some	Incorrect	The pupil does not know the names of specific lines. The shape has two horizontal lines (lines that follow the horizon) and no vertical lines (lines that are at 90° to the horizon). It also has two pairs of parallel lines (a set of lines that will never meet as they are the same distance apart the whole way along them) and no perpendicular lines (lines that meet at 90°). As there are no perpendicular lines, there are no right angles in the shape. Correct answers – horizontal, parallel, no
2	Draw a quadrilateral with one acute angle. (see question)	Correct	The pupil has understood and identified the acute angle in their shape. This also demonstrates that they understand what a quadrilateral is.
3	Tick the shapes with at least one right-angle. Rectangle	Incorrect	The pupil has identified one shape that has at least one right-angle, however, they were asked to identify shapes (plural) with more than one right-angle. They have not identified that the first triangle (right-angled triangle) contains a right-angle. Correct answer – right-angled triangle and rectangle
4	The arrow starts in the position shown. It makes a quarter turn clockwise. Draw where the arrow ends. Arrow pointing 90° to the left.	Incorrect	The pupil has made a quarter turn with the arrow but they have turned anti-clockwise. Year 3 pupils should have encountered analogue clocks in maths lessons. Analogue clocks could be referred to when discussing clockwise and anti-clockwise. Correct answer – arrow pointing 90° to the right.
5	The cuboid has ___ faces, ___ edges and ___ vertices. 3, 9, 7	Incorrect	The pupil has not visualised the cuboid and has instead counted what they can see. This shows that the pupil understands the different terms associated with 3D shapes but is unable to visualise the shape to check their answers. Correct answers – 6 faces, 12 edges, 8 vertices