

# Max's Geometry Adventure

*Learning objective: To identify, describe, and classify 2D and 3D shapes, including angles and lines of symmetry.*

Read the word bank to refresh your memory, then help Max the monkey solve his shape puzzles below.

Max the monkey is exploring the jungle to find geometric shapes. He notices that the tall palm trees grow in vertical lines, while the horizon where the sun sets is a perfectly horizontal line. Max finds a honeycomb made by Bea the bee and counts the six sides of each hexagon. He spots a triangle-shaped leaf with an angle smaller than a right angle. Max loves using his maths skills to map out the jungle and classify every shape he sees!

*Word bank: Acute angle · Obtuse angle · Right angle · Parallel lines · Perpendicular lines · Symmetry · Polygon · Vertex · Horizontal · Vertical*

**1. Max finds a shape with four equal sides and four right angles. What is the name of this shape, and how many lines of symmetry does it have? (2 marks)**

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**2. Explain the difference between a horizontal line and a vertical line. You may use a diagram to help your answer. (2 marks)**

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**3. If a triangle has one angle that is greater than 90 degrees, what type of angle is it called? (1 mark)**

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**4. Look at the word 'symmetry'. Does this word have any lines of symmetry within its letters? Explain your reasoning. (2 marks)**

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5. Max sees a road sign that is a regular pentagon. How many vertices does this shape have in total? (1 mark)

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**Draw:** Draw a composite shape made of one square and one triangle. Label the right angles and draw all lines of symmetry on your shape.



*Extension challenge: Max has 5 shapes: a square, a rectangle, a circle, a regular pentagon, and a hexagon. Order them by the number of sides they have, starting with the fewest. Can you calculate the total number of sides if you had two of each shape?*