

# Max the Monkey's Geometry Challenge

*Learning objective: To identify, describe, and classify 2D and 3D shapes, including identifying right angles and horizontal/vertical lines.*

Read each question carefully. Use a ruler where necessary. Max the Monkey is counting on you to use your maths skills to complete the puzzle!

Max the Monkey is organising his jungle treasure chest. He has cubes, spheres, pyramids, and a collection of flat shapes like rectangles and triangles. Help Max sort his shapes by answering the questions below.

*Word bank: Right angle · Horizontal · Vertical · Parallel · Perpendicular · Vertex · Face · Edge*

**1. 1. Look at a square. How many right angles does it have? How many vertices does it have? (2 marks)**

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**2. 2. Max has a 3D shape with 6 square faces and 12 edges. What is the name of this shape? (1 mark)**

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**3. 3. Draw two lines that are parallel to each other. Explain how you know they are parallel. (3 marks)**

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**4. 4. A triangle has one right angle. Is this an equilateral, isosceles, or right-angled triangle? Explain your answer using the properties of angles. (4 marks)**

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**5. 5. Identify two items in your classroom that have at least one vertical line and one horizontal line. Describe the shapes you see. (4 marks)**

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6. 6. Max is building a tower using a cylinder and a cone. Describe the difference between the faces of these two shapes. (3 marks)

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7. 7. Extended Task: Write a short guide for Max to help him identify a 'regular' polygon. Include what it means for sides and angles to be equal, and give an example of a regular polygon. (8 marks)

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Draw: Draw a composite shape made of one rectangle and one triangle joined together. Label the right angles with a small square symbol.

*Extension challenge: Total: /25*