

# Max's Magnificent Shape Safari

*Learning objective: To identify, describe, and classify 2D and 3D shapes, including understanding angles and properties of polygons.*

Help Max the monkey solve these mathematical puzzles! Read each question carefully and write your answer clearly. You have 10 questions to complete.

Answer Key: 1. C (180 degrees); 2. True; 3. Obtuse; 4. B (Hexagon); 5. False (it has 6 faces); 6. Reflex; 7. True; 8. A (Perpendicular); 9. A square-based pyramid; 10. 360 degrees.

*Word bank: acute · obtuse · reflex · polygon · vertex · parallel · perpendicular · net*

1. 1. Max is measuring a straight line. What is the value of a straight angle in degrees? A) 90 B) 45 C) 180\* D) 360 (1 mark)

2. 2. True or False: A regular polygon has sides of equal length and internal angles of equal size. (1 mark)

3. 3. An angle that is greater than 90 degrees but less than 180 degrees is called an \_\_\_\_\_ angle. (1 mark)

4. 4. Which shape has exactly six sides? A) Pentagon B) Hexagon\* C) Heptagon D) Octagon (1 mark)

5. 5. True or False: A cube has 8 square faces. (1 mark)

6. 6. An angle that is greater than 180 degrees is known as a \_\_\_\_\_ angle. (1 mark)

7. 7. True or False: Parallel lines are lines that stay the same distance apart and will never meet. (1 mark)

8. 8. What do we call lines that meet at a 90-degree angle? A) Perpendicular\* B) Parallel C) Diagonal D) Curved (1 mark)

9. 9. If you fold a 2D net consisting of one square and four triangles, what 3D shape do you create? (1 mark)

**10. 10. How many degrees are there in a full turn (a complete circle)? (1 mark)**

**Draw:** Draw a composite shape made of a rectangle and a triangle joined together. Label one acute angle and one obtuse angle on your drawing.



*Extension challenge: Max has £10.00. He wants to buy 4 identical triangular wooden tiles. If each tile costs £1.25, how much change will he have left? Show your working out.*