

Max's Magnificent Symmetry Challenge

Learning objective: To identify, describe, and complete 2D shapes and patterns using lines of symmetry.

Max the monkey is busy organising his jungle patterns! Help him solve these symmetry puzzles. Read each question carefully and write your answers clearly.

Answer Key: 1. C (Infinite), 2. True, 3. Vertical, 4. False, 5. 4, 6. B, 7. A, 8. True, 9. 2, 10. False. Max says: Remember, a line of symmetry must split a shape into two identical mirror images!

Word bank: Symmetry · Reflection · Line of symmetry · Horizontal · Vertical · Regular polygon

1. 1. How many lines of symmetry does a perfect circle have? A) 1 B) 2 C) Infinite* D) 0 (1 mark)

2. 2. True or False: A square has four lines of symmetry. (1 mark)

3. 3. If you draw a line straight down the middle of a capital letter 'A', is it a vertical or horizontal line of symmetry? (1 mark)

4. 4. True or False: A scalene triangle has exactly one line of symmetry. (1 mark)

5. 5. A regular rhombus has how many lines of symmetry? (1 mark)

6. 6. Which of these letters has NO lines of symmetry? A) H B) G* C) M D) O (1 mark)

7. 7. A rectangle has: A) 2 lines of symmetry* B) 4 lines of symmetry C) 1 line of symmetry D) 3 lines of symmetry (1 mark)

8. 8. True or False: A line of symmetry creates a reflection. (1 mark)

9. 9. How many lines of symmetry does the letter 'X' have? (1 mark)

10. 10. True or False: Every quadrilateral has at least one line of symmetry. (1 mark)

Draw: Draw a butterfly with a vertical line of symmetry down the centre. Ensure the patterns on the left wing are a perfect reflection of the patterns on the right wing.



Extension challenge: Max has a budget of £10.00. He wants to buy square tiles that cost £0.50 each to create a symmetrical mosaic. How many tiles can he buy, and can you sketch a design that uses 8 of them symmetrically?