

# 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)**

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

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**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)**

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

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

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

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**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)**

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

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

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

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**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?*