WONDERLEARNERZ PRIMARY ACADEMY â€¢ PRACTICE & ASSESSMENT WORKSHEET

Symmetry - Worksheet 3

Grade 4 | Mathematics | Ch 17: Symmetry | Total Marks: 19 | Time: 30 Minutes

Student Name: _____ **Roll / ID No:** _____

Grade / Section: _____ **Date:** _____ **Score:** _____ / 19

Instructions: Section A (Q1-Q4): Choose the correct option (A, B, C, or D). Section B (Q5-Q9): Write your exact one-word or numerical answer. Section C & D (Q10-Q15): Write your detailed answers, corrections, and show all working steps neatly in the space provided.

Q1. How many lines of symmetry does a standard square have? [1 Mark]

( ) A. 4 lines of symmetry
( ) B. 2 lines of symmetry
( ) C. 8 lines of symmetry
( ) D. 1 line of symmetry

Q2. How many lines of symmetry does a non-square rectangle have? [1 Mark]

( ) A. 2 lines of symmetry
( ) B. 4 lines of symmetry
( ) C. 1 line of symmetry
( ) D. 0 lines of symmetry

Q3. Which of the following capital letters has both a horizontal and a vertical line of symmetry? [1 Mark]

( ) A. H
( ) B. A
( ) C. C
( ) D. F

Q4. How many lines of symmetry does a scalene triangle have (all sides different)? [1 Mark]

( ) A. 0 lines of symmetry
( ) B. 1 line of symmetry
( ) C. 2 lines of symmetry
( ) D. 3 lines of symmetry

Q5. At the Geometric Design Lab, an artisan creates a Rectangle Window Frame. If it possesses 2 lines of symmetry, how many equal reflection sectors are created when all lines are drawn? [1 Mark]

Q6. An artist draws the left half of a symmetrical vase on grid paper. The widest point is 6 units to the left of the center line. How wide is the completed vase from left edge to right edge? [1 Mark]

Q7. A road safety crew paints a triangular hazard sign that has 3 equal sides and 3 equal angles. How many lines of symmetry does the sign have? [1 Mark]

Q8. A regular polygon has equal sides and 5 lines of symmetry. Which polygon is this? **[1 Mark]**

Q9. On a grid with a vertical mirror line at x = 5, a point is drawn at x = 2 (3 units left). What x-coordinate is its reflected image? **[1 Mark]**

Q10. Hannah folds a rectangular paper along its diagonal and says: 'The diagonal is a line of symmetry because the two halves are congruent triangles.' What is her mistake? **[1 Mark]**

Q11. Dev says: 'A circle has only 4 lines of symmetry: vertical, horizontal, and two diagonals.' Why is Dev wrong? **[1 Mark]**

Q12. Why does an isosceles triangle have exactly 1 line of symmetry, whereas an equilateral triangle has 3? **[2 Marks]**

Q13. If you fold a paper shape twice (once horizontally and once vertically) and punch a single hole through all layers, how many holes will appear when unfolded? **[2 Marks]**

Q14. Which of the following digits has BOTH a horizontal line of symmetry and a vertical line of symmetry when written in standard block font? **[2 Marks]**

Q15. A square tile with side 10 cm has a symmetrical pattern. If one quarter of the tile contains a shaded area of 14 cmÂ², what is the total shaded area of the complete tile? **[2 Marks]**