

Max's Geometry Garden Challenge

Learning objective: To consolidate understanding of 2D and 3D shapes, angles, and coordinates at the Year 6 expected standard.

Help Max the monkey solve these geometrical puzzles to clear the path through the garden. Answer all 10 questions carefully!

Answer Key: 1) C (180°), 2) True, 3) Obtuse, 4) B (6), 5) False, 6) 360° , 7) D (A shape with 4 sides), 8) True, 9) 90° , 10) 3.

Word bank: vertex · reflex · translation · net · isosceles · parallel · protractor · diameter · radius · quadrant

1. 1. Max is looking at a triangle. What is the sum of the interior angles of any triangle? A) 90° B) 360° C) 180° * D) 270° (1 mark)

2. 2. True or False: A rhombus is a type of parallelogram. (1 mark)

3. 3. An angle measuring 125° is classified as which type of angle? (1 mark)

4. 4. How many faces does a cube have? A) 4 B) 6* C) 8 D) 12 (1 mark)

5. 5. True or False: A circle has a radius that is twice the length of its diameter. (1 mark)

6. 6. What is the total sum of angles around a single point? (1 mark)

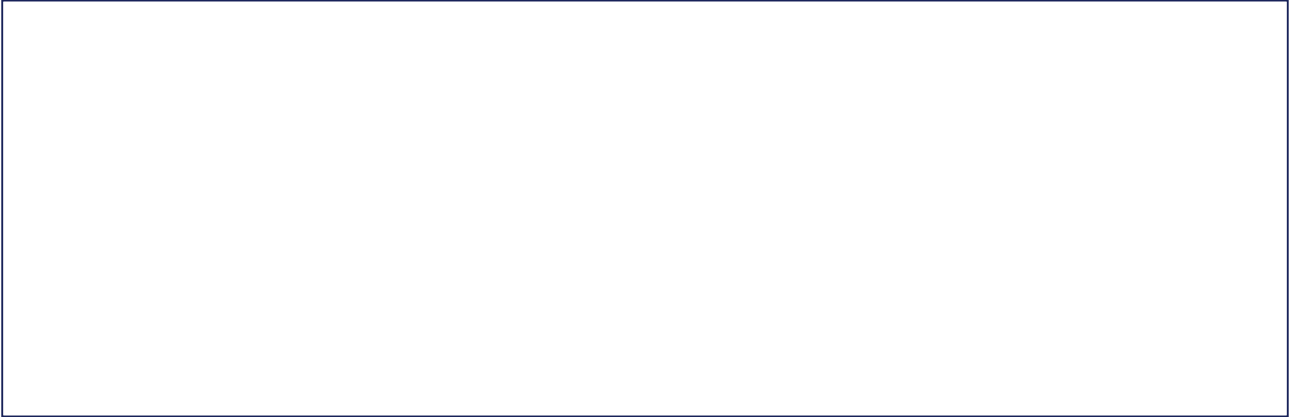
7. 7. Which of these is the definition of a quadrilateral? A) A shape with 3 sides B) A shape with 5 sides C) A shape with 6 sides D) A shape with 4 sides* (1 mark)

8. 8. True or False: If you translate a shape, its size and orientation remain the same. (1 mark)

9. 9. How many degrees are in a right angle? (1 mark)

10. 10. If a shape is reflected across the y-axis, how many lines of symmetry must it have if it remains unchanged? (Think about a square). (1 mark)

Draw: Draw a composite shape made of a rectangle and a triangle joined together. Label the parallel lines with arrows and mark one obtuse angle.



Extension challenge: Max wants to build a fence around a garden. If the garden is a rectangle with a length of 8m and a width of 5m, and fencing costs £12 per metre, calculate the total cost for Max.