Year 6 · Geometry: Sorting Shapes & Turns

Name: _____ Date: _____

Kia ora! This sheet helps you classify quadrilaterals, work with angles inside triangles and four-sided shapes, and figure out how many times a shape looks the same as it spins around. Take your time and enjoy!

Warm-up

1. Name the quadrilateral that has four right angles and four equal-length sides.

2. How many sides does a trapezium have, and how many pairs of parallel sides?

3. What do the three interior angles of any triangle add up to?

4. What is the order of rotational symmetry of a circle?

Practice

5. A parallelogram has two pairs of parallel sides. Explain how a rectangle is a special kind of parallelogram.

6. A kite has two pairs of equal-length adjacent sides. Is a rhombus a kite? Explain.

7. A triangle has two angles of 65° and 40°. What is the size of the third angle?

8. State the order of rotational symmetry of: (a) a square, (b) a rectangle (not a square), (c) an equilateral triangle.

9. Aroha is making a kite for the Manukau kite day. Three of its interior angles are 100°, 75° and 100°. What is the size of the fourth angle?

10. Tama sorts shapes for a display at school. He has a shape with four sides where every side is the same length but it has no right angles. What quadrilateral is it, and why is it not a square?

Challenge

11. A quadrilateral has interior angles in the ratio 1 : 2 : 3 : 3. Work out all four angles, then say whether the shape could be a trapezium.

12. Compare a triangular prism and a square-based pyramid. State how many faces, edges and vertices each has, and describe one key difference in their faces.