Year 5 · Geometry: Prisms, Parallel & Perpendicular

Name: _____ Date: _____

Kia ora! This sheet helps you spot parallel and perpendicular lines and describe prisms by their faces, edges, and vertices. Grab a pencil and let's explore some shapes!

Warm-up

1. What do we call two lines that are always the same distance apart and never meet?

2. When two lines cross at a right angle (90°), what do we call them?

3. A prism has two ends that are identical and parallel. What do we call these matching ends?

4. How many faces does a cube have?

Practice

5. A rectangular prism (like a shoebox) has how many faces, edges, and vertices? List all three.

6. Look at a capital letter L. Do its two straight lines meet at a parallel or perpendicular corner? Explain.

7. A triangular prism has triangle ends. How many faces does it have altogether? Describe them.

8. Mereana is making a fence at her marae. She wants two fence rails that never meet and stay the same distance apart. What kind of lines should the rails be, and why?

9. Tane draws a square for a hopscotch grid at school. In a square, name one pair of parallel sides and one pair of perpendicular sides.

10. Sione has a chocolate block shaped like a rectangular prism. If he slices straight down to make a cross-section, what shape will the cut face be?

Challenge

11. A prism has 2 hexagonal (6-sided) ends. Work out how many faces, edges, and vertices it has. Show your thinking.

12. Amaia notices a pattern in prisms: the number of faces plus vertices seems linked to the edges. Using a triangular prism (5 faces, 6 vertices, 9 edges) and a rectangular prism (6 faces, 8 vertices, 12 edges), find the pattern: what is

faces + vertices – edges each time?