Year 7 · Geometry: Sorting Triangles

Name: _____ Date: _____

Kia ora! This sheet helps you name triangles two ways, by their angles and by their sides. Grab a pencil and let's classify some shapes!

Warm-up

1. Name the type of triangle that has one right angle (a 90° corner).

2. How many sides of an equilateral triangle are equal in length?

3. A triangle has one angle that is bigger than 90°. What is this type called?

4. An isosceles triangle has how many equal sides?

Practice

5. A triangle has angles of 60°, 60° and 60°. Classify it by BOTH its angles and its sides.

6. A triangle has angles of 90°, 45° and 45°. Classify it by BOTH its angles and its sides.

7. A triangle has side lengths 5 cm, 7 cm and 9 cm, all different, and its largest angle is 100°. Classify it by BOTH its angles and its sides.

8. Aria is cutting a triangular flag for her waka ama club. Two of its angles are 70° and 70°. What is the third angle, and is the flag isosceles?

9. Tane draws a triangle with angles 35°, 55° and 90°. Is this an acute, right or obtuse triangle? Explain.

10. A garden bed at Avondale Primary is shaped like a triangle. All three sides measure 4 m, and one angle is 60°. Classify the triangle by BOTH its sides and its angles, and find the other two angles.

Challenge

11. An isosceles triangle has one angle of 40°. There are TWO different triangles this could be. Find both sets of three angles.

12. Can a triangle be both right (one 90° angle) and equilateral at the same time? Explain your reasoning using angle facts.