# Properties of Triangles

Name: _____ Date: _____

***Remember:*** *Equilateral triangles have 3 equal sides and 3 equal angles (60° each). Isosceles triangles have 2 equal sides and 2 equal angles. Scalene triangles have no equal sides and no equal angles.*

## Part A: Classify each triangle

Write whether each triangle is **equilateral**, **isosceles**, or **scalene**.

1. A triangle with sides 5 cm, 5 cm, and 8 cm: _____
2. A triangle with sides 7 cm, 9 cm, and 11 cm: _____
3. A triangle with all angles measuring 60°: _____
4. A triangle with sides 12 m, 12 m, and 12 m: _____
5. A triangle with angles 45°, 65°, and 70°: _____
6. A triangle with two angles of 55° each: _____

## Part B: Finding missing angles

Find the missing angle in each triangle. (Remember: angles in a triangle sum to 180°)

7. Equilateral triangle: All angles = _____°
8. Isosceles triangle with angles 70°, 70°, and ?: Missing angle = _____°
9. Triangle with angles 35° and 85°: Missing angle = _____°
10. Isosceles triangle with angles 40°, ?, and ?: Two missing angles = _____°

## Part C: True or False

Write **T** for true or **F** for false.

11. An equilateral triangle is also an isosceles triangle. _____
12. A scalene triangle can have two equal angles. _____
13. An isosceles triangle has at least two equal sides. _____
14. All equilateral triangles have angles of 60°. _____
15. A triangle can have sides of 2 cm, 3 cm, and 10 cm. _____

## Part D: Problem solving

16. The perimeter of an equilateral triangle is 24 cm. What is the length of each side?

    Answer: _____

17. An isosceles triangle has two equal sides of 9 cm each. If the perimeter is 25 cm, what is the length of the third side?

Answer: _____