The Panda Math Tutor

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Triangles

Student Worksheet

Questions & Working Space

IGCSE Mathematics

Name: _____

Date: _____

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Note

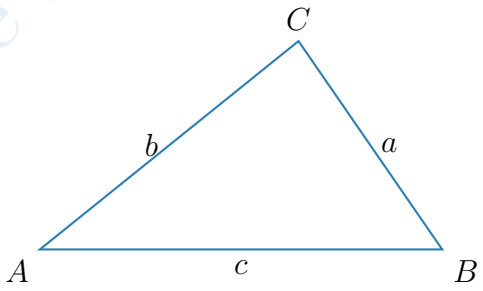
How to use this worksheet. These questions are built *strictly* on the *Triangles* notes: classifying triangles by sides and by angles, the angle sum property, isosceles properties, the exterior angle theorem, area using $\frac{1}{2}bh$ and Hero's formula, Pythagoras' Theorem and its converse, the triangle inequality, and real-world applications.
Drawing. Where no diagram is given, sketch one and label everything you know before you calculate — almost every mark lost in this topic comes from an unlabelled or missing sketch.
Working space. Ruled lines are provided after each question — show *all* of your working there, name the property or theorem you are using, and include units in your final answer. Harder questions have a teal **Hint** box; try the question first and use the hint only if you are stuck.
Checking your answers. Full step-by-step solutions, a marking scheme for the exam paper, and a quick answer key are in the separate booklet *"Triangles — Solutions & Answer Key."* Try each question honestly before you look.

1 Part I — Topic-by-Topic Exercises

1.1 Types of Triangles

Note

Reminder of the standard convention: capital letters for the vertices, and each lowercase letter for the side *opposite* the vertex of the same name.



Exercise Y1 *[Basic]*

Classify each triangle by its **sides** as equilateral, isosceles or scalene:

(a) 6 cm, 6 cm, 6 cm

(b) 9 cm, 9 cm, 4 cm

(c) 5 cm, 8 cm, 12 cm

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Exercise Y2 *[Basic]*

Classify each triangle by its **angles** as acute, right-angled or obtuse:

(a) 40°, 65°, 75°

(b) 25°, 90°, 65°

(c) 110°, 35°, 35°

Exercise Y3 *[Standard]*

A triangle has angles of 90° and 45°. Find the third angle, and describe the triangle fully — that is, by both its angles **and** its sides.

Exercise Y4 *[Standard]*

In triangle ABC, $AB = AC$ and angle $A = 34°$. Find the size of each base angle.

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Preview ends here

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