

The Panda Math Tutor

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Triangles

Student Worksheet
Questions & Working Space
IGCSE Mathematics

Name: _____

Date: _____

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Teach → Practice → Reason → Apply → Challenge → Master

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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.

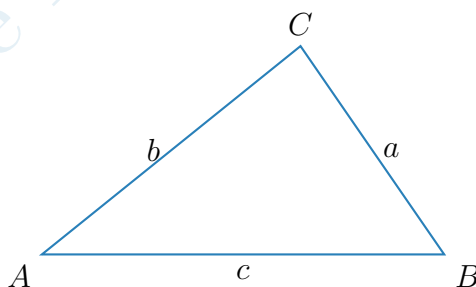
Checking your answers. Full step-by-step solutions, a marking scheme for the exam paper, and a quick answer key are in the separate booklet "*Triangles — Solutions & Answer Key.*" Try each question honestly before you look.

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

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 $A = 34^\circ$. Find the size of each base angle.

Preview ends here

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