

The shortest connection

Explore right angles and explain a length calculation.



A folded paper triangle, compass, ruler and geometric solids on a light desk. · AI-generated illustration

A right-angled triangle has two legs and a hypotenuse. The hypotenuse is opposite the right angle. Its side lengths satisfy $a^2 + b^2 = c^2$. This relationship applies only to right-angled triangles.

Now try it

1. Draw a right-angled triangle with legs of 3 cm and 4 cm. Mark the right angle.
2. Calculate the third side and check it with a ruler. Explain why the drawing gives only an approximation.

Fictional demo material. Adapt to the learners and the school's teaching before use.

mathematics · v1 · Prepared demo translation

Your notes and findings

Think it through

How long is the hypotenuse?

See a suggested answer

$3^2 + 4^2 = 9 + 16 = 25$. The positive square root of 25 is 5. The hypotenuse is 5 cm long.

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