How we can measure a high tree or a broad river?

Get curious

Analyzing

The Pythagorean theorem - the students check whether the walls in the classroom are built at right angle.

The students use the Pythagorean theorem, illustrated with the example of the Egyptian triangle, to measure the angles of the classroom's walls.

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Get going

Counting

The similar triangles - the students measure the height of a window.

The students experimentally prove the theorem about similar triangles by measuring a window in the room from the distance.

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Analyzing

The similar triangles: the students measure shadows.

Here is another experiment illustrating the similarity of triangles which you can do in the darken classroom. Use the shadows of objects to find the properties of triangles.

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What have you noticed?

Counting

Congruent triangles: measuring the width of a road or a river.

The students use the theorem about congruent triangles to calculate the width of a road (or a river). The task is to be performed outdoors.

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The Thales's theorem: measuring the height of a tree.

The students use the Thales's theorem to measure the height of a selected object without having to climb to the top of it.

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Get practicing

Measure the highest building in your surroundings.

Find the highest building in your surroundings and meassure it's high using the the Thale's theorem.