

Demonstrate that the interior angle sum of a triangle in...

demonstrate that the interior angle sum of a triangle in the plane is 180° and apply this to determine the interior angle sum of other shapes and the size of unknown angles

Learning intention

- demonstrate that the interior angle sum of a triangle in the plane is 180° and apply this to determine the interior angle sum of other shapes and the size of unknown angles

Teach and model

- using concrete materials to demonstrate that the sum of the interior angles of a triangle is 180° ; for example, using paper triangles and tearing to demonstrate that...
- using decomposition and the angle sum of a triangle to generalise the interior angle sum of an n -sided polygon, as $180(n-2)$; $=180n-360$

Check understanding

- Explain the main idea in demonstrate that the interior angle sum of a triangle in... using an example.
- Show the idea in a second way: with words, a model, a diagram or symbols.
- Apply the idea to a short unfamiliar situation and justify the result.

Teaching cautions

- Ask the student to explain their choice, not only state an answer.
- Check that key vocabulary is understood in a new example.
- Mix representations so the skill is transferred rather than copied.

Quick lesson sequence

- Connect to prior knowledge and introduce the key vocabulary.
- Model one clear example, then solve a second example together.
- Finish with an independent check and a short student explanation.