



HOW MATHEMATICIANS EXPLAIN REASONING

Teach the language for mathematical reasoning.



THE IDEA

Mathematicians use specific language to explain why an answer is correct.

EAL learners often know the idea but need the language to describe their reasoning.

Simple phrases help them explain their thinking clearly.



IN THE CLASSROOM

- Teach key reasoning phrases.
- Show examples from maths.
- Use a simple sentence frame.
- Give time to practise.
- Use it in speaking and writing.

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TEACH THE PHRASES

Give useful reasoning phrases.

- because ...
- so ...
- therefore ...
- this shows ...
- we can see that ...
- the answer must be ...

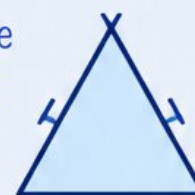
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SHOW EXAMPLES

Use it in a maths example.

Because both angles are equal, the triangle must be isosceles.



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PRACTISE AND APPLY

Let students use it.

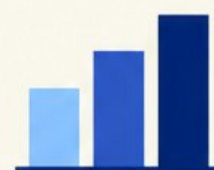
Give a short problem and ask for a reason.

Because ...

Therefore ...

This shows ...

The answer must be ...



WHY IT WORKS

- Helps students explain their mathematical thinking.
- Builds academic language.
- Makes reasoning clearer and more convincing.
- Useful in every subject.



EAL UPGRADE

Create a reasoning phrase bank with simple examples from your maths topics.



TRY IT TOMORROW

Give a problem and ask students to explain their reasoning using one of the key phrases.



TEACHER LANGUAGE

"Can you explain why?"
"What is your reasoning?"
"Use one of these phrases in your answer."