

Calculate and interpret absolute, relative and percentage errors in measurements...

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Learning intention

- calculate and interpret absolute, relative and percentage errors in measurements, recognising that all measurements are estimates

Teach and model

- investigating error as a percentage of the exact value; for example, comparing an estimation of the number of people expected to come to an event by subtracting the...
- using absolute value in a percentage error formula; considering when they would use the absolute value and when they would not, depending upon the context
- calculating the percentage errors in expected budgets to actual expenditure

Check understanding

- Explain the main idea in calculate and interpret absolute, relative and percentage errors in measurements... 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.