

The impact of measurement errors on the accuracy of results...

identify the impact of measurement errors on the accuracy of results in practical contexts

Learning intention

- identify the impact of measurement errors on the accuracy of results in practical contexts

Teach and model

- describing settings where measurement errors may impact research results and how measurement data impacted by error can result in biased findings
- analysing instruments and methods for measuring in investigations and modelling activities
- determining the impact that compounding errors have on financial calculations; for example, considering the effect of truncation on money amounts for large scale customer...

Check understanding

- Explain the main idea in the impact of measurement errors on the accuracy of results... 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.