

The effect of using approximations of real numbers in repeated...

recognise the effect of using approximations of real numbers in repeated calculations and compare the results when using exact representations

Learning intention

- recognise the effect of using approximations of real numbers in repeated calculations and compare the results when using exact representations

Teach and model

- comparing and contrasting the effect of truncation or rounding on the final result of calculations when using approximations of real numbers rather than exact...
- investigating the impact of approximation on multiple calculations in contexts that involve the area of compound shapes involving circles, the surface area and volume of...

Check understanding

- Explain the main idea in the effect of using approximations of real numbers in repeated... 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.