

Terminating and recurring decimals, using digital tools as appropriate

recognise terminating and recurring decimals, using digital tools as appropriate

Learning intention

- recognise terminating and recurring decimals, using digital tools as appropriate

Teach and model

- identifying when a fraction has a terminating decimal expansion from the prime factorisation of its denominator; for example, $\frac{7}{24}$ does not...
- identifying terminating, recurring and non-terminating decimals and choosing their appropriate representations such as $\frac{1}{3}$ is represented as $0.\overline{3}$

Check understanding

- Explain the main idea in terminating and recurring decimals, using digital tools as appropriate 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.