

And use rules that generate visually growing patterns and number...

recognise and use rules that generate visually growing patterns and number patterns involving rational numbers

Learning intention

- recognise and use rules that generate visually growing patterns and number patterns involving rational numbers

Teach and model

- investigating patterns such as the number of tiles in a geometric pattern, or the number of dots or other shapes in successive repeats of a strip or border pattern; looking for patterns...
- using a calculator or spreadsheet to experiment with number patterns that result from multiplying or dividing; for example, $1 \div 9$, $2 \div 9$, $3 \div 9$..., 210×11 , 211 ...
- creating an extended number sequence that represents an additive pattern using decimals; for example, representing the additive pattern formed as students pay...

Check understanding

- Explain the main idea in and use rules that generate visually growing patterns and number... 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.