

The connection between algebraic and graphical representations of exponential relations...

recognise the connection between algebraic and graphical representations of exponential relations and solve related exponential equations, using digital tools where appropriate

Learning intention

- recognise the connection between algebraic and graphical representations of exponential relations and solve related exponential equations, using digital tools where...

Teach and model

- recognising that in a table of values, if the ratio between consecutive values of the dependent variable is constant, then it is an exponential relation
- investigating the links between algebraic and graphical representations of exponential functions using graphing software
- using digital tools with symbolic manipulation functionality to systematically explore exponential relations

Check understanding

- Explain the main idea in the connection between algebraic and graphical representations of exponential relations... 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.