

Interpret and use logarithmic scales in applied contexts involving small...

interpret and use logarithmic scales in applied contexts involving small and large quantities and change

Learning intention

- interpret and use logarithmic scales in applied contexts involving small and large quantities and change

Teach and model

- understanding that the logarithmic scale is calibrated in terms of order of magnitude; for example, doubling or powers of 10
- identifying and interpreting data representations (charts and graphs) that use logarithmic scales and discussing when it is appropriate to use this type of scale and...
- investigating and interpreting logarithmic scales used in real-world contexts; for example, Richter, decibel and sensitivity scales or growth in investments, timescales...

Check understanding

- Explain the main idea in interpret and use logarithmic scales in applied contexts involving small... 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.