

Relationships between variables represented in graphs of functions from authentic...

describe relationships between variables represented in graphs of functions from authentic data

Learning intention

- describe relationships between variables represented in graphs of functions from authentic data

Teach and model

- using graphs to analyse a building's electricity or gas usage over a period of time, the value of shares on a stock market, or the temperature during a day...
- using travel graphs to compare the distance travelled to and from school, interpreting and discussing features of travel graphs such as the slope of lines and the meaning...
- telling the story behind what is being represented in graphs of functions; for example, graphs representing pouring rates or distance versus time

Check understanding

- Explain the main idea in relationships between variables represented in graphs of functions from authentic... 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.