

And use variables to represent everyday formulas algebraically and substitute...

recognise and use variables to represent everyday formulas algebraically and substitute values into formulas to determine an unknown

Learning intention

- recognise and use variables to represent everyday formulas algebraically and substitute values into formulas to determine an unknown

Teach and model

- linking variables to attributes and measures being modelled when using formulas, such as the area of a rectangle is equal to the length $\times$ width as $A = l \times w$ or using...
- interpreting and using formulas obtained from other sources; for example, maximum heart rates and target heart rates for moderate exercise
- substituting numerical values for variables when using formulas and calculating the value of an unknown in practical situations; for example, calculating weekly wage W ...

Check understanding

- Explain the main idea in and use variables to represent everyday formulas algebraically and substitute... 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.