

Solve one-variable linear equations with natural number solutions; verify the...

solve one-variable linear equations with natural number solutions; verify the solution by substitution

Learning intention

- solve one-variable linear equations with natural number solutions; verify the solution by substitution

Teach and model

- recognising that solving an equation is a process of determining a value that makes the equation true; using substitution to determine whether a given number is a...
- solving equations using concrete materials, the balance model, and backtracking, explaining the process
- solving linear equations such as $3x+7=19$ algebraically, and verifying the solution by substitution

Check understanding

- Explain the main idea in solve one-variable linear equations with natural number solutions; verify the... 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.