

Find unknown values in numerical equations involving addition and subtraction...

find unknown values in numerical equations involving addition and subtraction, using the properties of numbers and operations

Learning intention

- find unknown values in numerical equations involving addition and subtraction, using the properties of numbers and operations

Teach and model

- demonstrating the commutative properties of addition using materials, diagrams and number lines; for example, using number lines to demonstrate that $5 + 2 = 2 + 5$...
- using balance scales and informal uniform units to create addition or subtraction number sentences showing equivalence, such as $7 + 8 = 6 + 9$, and to find unknowns...
- using relational thinking and knowledge of equivalent number sentences to explain whether equations involving addition or subtraction are true; for example, explaining...

Check understanding

- Explain the main idea in find unknown values in numerical equations involving addition and subtraction... 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.