

Mathematical modelling to solve practical problems involving additive and multiplicative...

use mathematical modelling to solve practical problems involving additive and multiplicative situations including financial contexts; formulate the problems using number sentences and choose efficient calculation strategies, using digital tools where appropriate; interpret and communicate solutions in terms of the situation

Learning intention

- use mathematical modelling to solve practical problems involving additive and multiplicative situations including financial contexts; formulate the problems using...

Teach and model

- modelling and solving a range of practical additive problems using materials, part-part-whole diagrams and/or a bar model, and writing addition and/or...
- modelling practical problems with division, interpreting and representing the situation using a diagram or array to represent what is unknown (the number of groups, or the...
- modelling practical problems involving money, such as a budget for a large event, as requiring either addition, subtraction, multiplication or division and justifying the...

Check understanding

- Explain the main idea in mathematical modelling to solve practical problems involving additive and multiplicative... 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.