

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 problems using number sentences and choose 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 problems using number...

Teach and model

- modelling practical additive situations, choosing whether to use an addition, subtraction or both when representing the problem as a number sentence, and...
- modelling additive problems using a bar model to represent the problem; for example, "I had 75 tomatoes and then picked some more, now I have 138. How..."
- modelling practical multiplicative situations using materials or a diagram to represent the problem; for example, if 4 tomato plants each have 6 tomatoes, deciding whether to...

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.