

Learner workbook: Equations from situations

Objective: Translate a situation into equations and interpret solutions in context.

Calculator condition: Non-calculator core; calculator optional only for checking where labelled.

L062 Equations from situations



balanced operations + independent check

Objective: Translate a situation into equations and interpret solutions in context.

Connect & Check

- State the objective and timeline. Retrieve simultaneous equations or a prerequisite. Diagnose a common error before modelling.
- Write one starting question you want answered today.

Choose your route

Route A: Visual Use a diagram, graph, table or annotation first.	Route B: Method Use a worked method, formula or calculation chain first.	Route C: Explain Start with words: what is known, what is changing, and why.
--	--	--

Share

- Pairs compare methods or predict a result for equations from situations. Ask for a reason, not only an answer.

Present

- Define variables with units; reject solutions that violate the situation

Apply: supported to independent

Recall: Retrieve the key fact or method needed for equations from situations.

Working: _____

Check/explanation: _____

Core practice: Three adult tickets and two child tickets cost £37. Adults cost £9 each. Find child price.

Working: _____

Check/explanation: _____

Reasoning: A rectangle's length is twice its width and its area is 50 cm^2 . Find positive dimensions.

Working: _____

Check/explanation: _____

Exam-style: Solve an exam-style problem involving equations from situations. Show working, include a check and interpret your answer.

Working: _____

Check/explanation: _____

Recall & Review

- Revisit the objective. Learners solve a fresh item without prompts, explain a check, correct one error and record the next practice.

WWW: _____ EBI: _____

Recall & Review: feedback and extension integration

Lesson L062: Equations from situations

Objective: Translate a situation into equations and interpret solutions in context.

Timing for a 60-minute lesson

0-7 Connect & Check; 7-14 Share; 14-25 Present/model; 25-44 Apply route choice/practice; 44-52 independent exam-style check; 52-60 Recall & Review, WWW/EBI and next step.

Recall & Review evidence

At the end of the lesson, solve a fresh question without prompts, explain one check, correct one error and record the next practice step.

What Went Well (WWW)

I represented the algebraic structure accurately, kept each transformation valid and checked the result by substitution, graph or equivalent reasoning.

Even Better If (EBI)

I will show the missing inverse operation or algebraic step, keep signs and brackets accurate and test the result in the original relationship.

Integrated stretch and deep challenge

Stretch: Three adult tickets and two child tickets cost £37. Adults cost £9 each. Find child price.

Deep challenge: A rectangle's length is twice its width and its area is 50 cm^2 . Find positive dimensions.

My next-step response
