Year 7 | Algebra

Solving linear equations

Learn and practise | Free preview

A sample from this topic. The complete topic collection contains three different resources and worked solutions.

Read the explanation and worked example. Show your working; use a calculator only where asked.

What you will practise

• Undo operations to solve one-variable equations and verify solutions.

• Explain a method and check the reasonableness of a result.

Useful starting skills: Use the prerequisite operations and representations shown in the worked example.

An equation says two expressions are equal. Perform the same operation on each side to preserve equality. Undo addition or subtraction before a surrounding multiplication when isolating a variable.

Check a solution by substituting it into the original equation. A correct value makes both sides identical.

Worked example

Solve $3x + 7 = 28$.

Subtract 7: $3x = 21$.

Divide by 3: $x = 7$. Check $3 \times 7 + 7 = 28$.

Answer: $x = 7$

Try it yourself

Name: _____ Date: _____

1. Solve x + 9 = 23.

2. Solve 5x = 45.

Answers and explanations

Check the method as well as the final answer. An alternative correct method is also valid.

1. x = 14

Subtract 9 from both sides.

2. x = 9

Divide both sides by 5.

Curriculum reference: VC2M7A03

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