Year 7 | Algebra

Formulas and changing variables

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

• Substitute into formulas and investigate how variables affect results.

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

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

A formula connects quantities. Define the letters and their units, replace letters with values, then follow the order of operations.

A table or spreadsheet reveals how systematic changes affect a result. Change one input at a time unless the investigation explicitly changes several.

Worked example

Use $C = 4n + 7$ to find C when $n = 6$.

Substitute $n = 6$.

$C = 4 \times 6 + 7 = 31$.

Answer: 31

Try it yourself

Name: _____ Date: _____

1. Use A = lw with l = 9 cm and w = 4 cm.

2. Use P = 2l + 2w with l = 8 and w = 3.

Answers and explanations

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

1. 36 cm²

Multiply length by width.

2. 22

2 × 8 + 2 × 3.

Curriculum reference: VC2M7A01; VC2M7A06

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