Expanding and factorising expressions

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

• Expand, simplify and factorise linear expressions.

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

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

Expand by distributing a multiplier to every term in brackets. Simplify by collecting like terms, taking care with negative signs.

Factorising reverses expansion. Find a common factor and place the remaining terms inside brackets; expand again to check.

Worked example

Simplify $3(2x-5)+4x$.

Expand to $6x-15+4x$.

Collect the x terms.

Answer: $10x-15$

Try it yourself

Name: _____ Date: _____

1. Expand 4(3x+2).

2. Simplify 5a-2b+3a+7b.

Answers and explanations

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

1. 12x+8

Multiply both terms by 4.

2. 8a+5b

Collect each variable separately.

Curriculum reference: VC2M8A01

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