Year 7 | Algebra

Expressions and number laws

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

• Use algebraic expressions and arithmetic laws to organise calculations.

• 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 expression has no equals sign. A variable represents a number; for example 5n + 2 means five times n, then add two.

Commutative and associative laws rearrange addition or multiplication. The distributive law $a(b+c)=ab+ac$ connects products and sums. These laws do not give unrestricted rearrangement of subtraction or division.

Worked example

Expand $4(x + 3)$.

Multiply both terms inside the brackets by 4.

$4 \times x + 4 \times 3$.

Answer: $4x + 12$

Try it yourself

Name: _____ Date: _____

1. Write an expression for 7 more than three times n.

2. Expand 5(a + 2).

Answers and explanations

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

1. 3n + 7

Multiply n by 3, then add 7.

2. 5a + 10

Distribute 5 to both terms.

Curriculum reference: VC2M7A02

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