

A2.2 A Using the rules of algebra

This animation will help students to:

- Know that an expression is formed from letter symbols and numbers (113)
- Explore general algebraic relationships (119)

Key words

Algebra
Expression
Term
Unknown

Overview

The animation shows a series of algebraic expressions after arithmetic operations are applied. It is based on a TOAN (Think Of A Number) loop that starts and finishes with x .

There is opportunity to discuss the ongoing algebraic expression before the animation gives the answer.

Differentiation

This animation is based on A2.2 OHP, which is taken from the diagram at the top of page 70, lesson A2.2, from the Year 7 Extension book.

Core tier students may be able to access the animation.

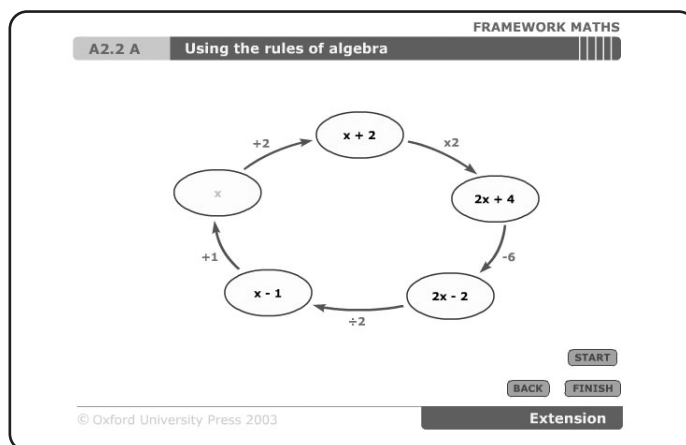
The more able students should be able to construct and check their own TOAN loops using algebra.

Commentary

The animation starts with a loop of five arithmetic operations. The loop starts with x and finishes with x .

Pressing NEXT moves the animation to the next expression.

Value	Operation	New expression
x	$+ 2$	$x + 2$
$x + 2$	$\times 2$	$2x + 4$
$2x + 4$	$- 6$	$2x - 2$
$2x - 2$	$\div 2$	$x - 1$
$x - 1$	$+ 1$	x



Teaching points

Encourage the students to use numbers for x in the loop, before working through the animation.

Substituting a number for x , in each expression in the final screen, is a useful checking procedure.