

Achievement Standard

Subject Reference CAS Mathematics 1.1

Title Demonstrate an understanding of straightforward algebraic methods

Level 1 **Credits** 4 **Assessment** External

Subfield Mathematics

Domain Algebra

Status Registered **Status date** 10 November 2006

Planned review date 28 February 2010 **Date version published** 10 November 2006

This achievement standard involves demonstrating an understanding of straightforward algebraic strategies.

Note: Students cannot use credit for both this achievement standard and AS90147, Mathematics 1.1, towards a national qualification including a National Certificate of Educational Achievement.

	Achievement Criteria	Explanatory Notes
Achievement	<ul style="list-style-type: none"> Demonstrate an understanding of straightforward algebraic strategies. 	<ul style="list-style-type: none"> Assessment will involve a selection from: <ul style="list-style-type: none"> solving linear or simple quadratic equations describing linear or quadratic patterns based on diagrams or tables writing algebraic expressions interpreting algebraic expressions recognising equivalence in algebraic expressions <ul style="list-style-type: none"> factorising and expanding manipulating and simplifying using a formula.
Achievement with Merit	<ul style="list-style-type: none"> Demonstrate an understanding of a range of algebraic methods in solving problem(s). 	<ul style="list-style-type: none"> Solving problems will involve a selection from: <ul style="list-style-type: none"> manipulating and simplifying of expressions investigating patterns rearranging formulae solving linear inequations solving linear and quadratic equations, and simultaneous linear equations.

	Achievement Criteria	Explanatory Notes
Achievement with Excellence	<ul style="list-style-type: none"> Demonstrate an understanding of algebraic methods in investigating and solving complex problems. 	<ul style="list-style-type: none"> Solving problems will involve the use of a sequence of methods and may involve: <ul style="list-style-type: none"> modelling by forming and solving appropriate equations and/or inequations interpreting in context.

General Explanatory Notes

- This achievement standard is derived from *Mathematics in the New Zealand Curriculum*, Learning Media, Ministry of Education, 1992:
 - achievement objectives, pp. 148, 154
 - suggested learning experiences, pp. 149, 155
 - sample assessment activities, pp. 150-152, 156-157
 - mathematical processes, pp. 26, 28.
- Equations may be solved by any appropriate method.
- Computer Algebraic Systems (CAS) technology may be used.

Quality Assurance

- Providers and Industry Training Organisations must be accredited by the Qualifications Authority before they can register credits from assessment against achievement standards.
- Accredited providers and Industry Training Organisations assessing against achievement standards must engage with the moderation system that applies to those achievement standards.

Accreditation and Moderation Action Plan (AMAP) reference

0226