Achievement Standard

Subject Reference Mathematics 2.4

Title Use coordinate geometry methods

Level 2 **Credits** 2 **Assessment** External

Subfield Mathematics

Domain Geometry

Registration date 20 October 2004 **Date version published** 20 October 2004

This achievement standard requires the use of coordinate geometry methods.

Achievement Criteria

	Achievement Criteria	Explanatory Notes
Achievement	• Use coordinate geometry methods.	• Methods will be selected from: – finding the mid-point between two points – finding the distance between two points – finding the equation of a line – finding the equation of parallel and perpendicular lines – finding coordinates of the point of intersection of two lines. • The use of the methods will be assessed in 2-dimensional situations. • Methods may be assessed in a context.
Achievement with Merit	• Solve problems involving coordinate geometry methods.	• Problems could include: – finding the equation of medians, perpendicular bisectors and altitudes – formulating a proof eg proving a triangle is isosceles or right angled isosceles – proving points are collinear.

	Achievement Criteria	Explanatory Notes
Achievement with Excellence	• Solve extended problems involving coordinate geometry methods.	• The complexity of the problems will require an extended chain of reasoning. • Problems could be set in 3-dimensional situations. • Problems could involve a proof.

General Explanatory Notes

1 This standard is derived from *Mathematics in the New Zealand Curriculum*, Learning Media, Ministry of Education, 1992:
- achievement objectives p. 120
- suggested learning experiences p. 121
- sample assessment activities pp. 122-123
- mathematical processes p. 26.

2 In this standard *solve problems* involves more than the mere demonstration of a method such as writing the equation of a line. The method is required to be applied, in a context (which could be mathematical), to arrive at a solution to the problem.

Quality Assurance

1 Providers and Industry Training Organisations must be accredited by the Qualifications Authority before they can register credits from assessment against achievement standards.

2 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