
GEOMETRY
**Use networks to find optimal solutions
to problems in geometry**

level:	2
credit:	2
final date for comment:	November 2003
expiry date:	December 2004
sub-field:	Mathematics
purpose:	People credited with this unit standard are able to use networks to find optimal solutions to problems. This unit standard is based on objectives from Level 7 of <i>Mathematics in the New Zealand Curriculum</i> and <i>Tauaki Marautanga Pngarau</i> .
entry information:	Open, but competence in a number of Level 1 mathematics unit standards is assumed.
accreditation option:	Evaluation of documentation by NZQA.
moderation option:	A centrally established and directed national moderation system has been set up by NZQA on behalf of the Science and Technology National Standards Body - Mathematics Advisory Group (General Education).

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special notes:

- 1 Learning Programme
This unit standard can be used to assess outcomes of a learning programme based on achievement objectives from *Mathematics in the New Zealand Curriculum* (Learning Media, Ministry of Education, 1992):
Geometry (Exploring networks), Level 7, page 120
 - choose an appropriate network to organise and visually represent information;
 - systematically develop, and critically evaluate, optimal solutions using networks;or on *Tauaki Marautanga Pangarau* (Learning Media, Ministry of Education, 1994), Ahuahanga, Taumata 7.

The skills of this unit standard are some of those that could satisfy requirements for Unit 5243, *Apply mathematical processes and skills in problems*.

- 2 Assessment Notes
The standard must be met in project management (critical path analysis) and at least two from the following list: shortest path; traversability; minimum spanning tree.

Calculators and computers can be used in achievement of credit for this unit standard.

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Elements and Performance Criteria

element 1

Use networks to find optimal solutions to problems.

performance criteria

- 1.1 The method chosen is appropriate to the problem.
- 1.2 An optimal solution is found which is consistent with the problem.

Comments to:

Science and Technology National Standards Body
- Mathematics Advisory Group (General Education)
Unit Standard Revision
PO Box 160
WELLINGTON

by November 2003.

Please Note: Providers must be accredited by the Qualifications Authority before they can offer programmes of education and training assessed against unit standards.

Accredited providers assessing against unit standards must engage with the moderation system that applies to those unit standards. [Please refer to relevant Plan ref: 0071]