

<b>Title</b>	<b>Apply mathematical processes to BCATS projects</b>		
<b>Level</b>	<b>2</b>	<b>Credits</b>	<b>3</b>

<b>Purpose</b>	<p>This unit standard has been designed to be achieved in a building, construction and allied trades skills (BCATS) programme.</p> <p>People credited with this unit standard are able to establish outcome requirements and select mathematical methods for solving problems, and use mathematical skills to solve problems for BCATS projects.</p>
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<b>Classification</b>	Construction Trades > Building, Construction, and Allied Trades Skills
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<b>Available grade</b>	Achieved
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### Guidance Information

- Definitions**  
*BCATS environment* refers to any workplace or context where work or activities related to the building, construction and allied trades sector take place, such as school workshops, training establishments, outdoor areas and industry placement workplaces.  
*BCATS project* refers to a project undertaken in a BCATS environment under general supervision, using a range of tools, equipment and materials, and involving standard processes.  
*Numerical calculations* refers to those suited to BCATS projects, such as addition, subtraction, multiplication, division, converting fractions to decimals and percentages (and vice versa), square, square root, using formulae to calculate area and volume, and trigonometry.
- Assessment against this unit standard may occur in any BCATS environment.
- Information supporting assessment decisions should, wherever possible, be collected naturally as the BCATS projects progress.
- Calculators and computers may be used during assessment of this unit standard.

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## Outcomes and performance criteria

### Outcome 1

Establish BCATS projects' outcome requirements and select mathematical methods for solving problems associated with achieving them.

#### Performance criteria

- 1.1 Outcome requirements are identified.
- 1.2 Mathematical methods are chosen in accordance with the situation and the problem.
- Range a combination of two of the following – numerical calculation, measurement, geometry, trigonometry.

### Outcome 2

Use mathematical skills to solve problems for BCATS projects.

Range trigonometry and at least one of the following – numerical calculation, measurement, geometry.

#### Performance criteria

- 2.1 Chosen methods are applied in the context of the situations provided.
- 2.2 Mathematical skills are used in conjunction to solve problems.
- 2.3 Solutions are accurate, and consistent with the outcome requirements of the problems.
- 2.4 Information and results are accurately presented.

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<b>Replacement information</b>	This unit standard was replaced by skill standard 40555.
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**This unit standard is expiring. Assessment against the standard must take place by the last date for assessment set out below.**

**Status information and last date for assessment for superseded versions**

Process	Version	Date	Last Date for Assessment
Registration	1	14 December 2007	31 December 2018
Rollover and Revision	2	20 October 2016	31 December 2020
Review	3	1 November 2018	31 December 2027
Review	4	29 May 2025	31 December 2027

**Consent and Moderation Requirements (CMR) reference**

0048

This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.