



Australian Government

FSKNUM35 Use algebraic and graphical techniques to analyse mathematical problems for work

Release: 1

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Modification History

Release	Comments
Release 1	This streamlined version first released with <i>FSK Foundation Skills Training Package version 1.0</i> .

Application

This unit describes the skills and knowledge to use a range of algebraic and graphical techniques to analyse and solve mathematical problems.

This unit applies to individuals who need numeracy skills at Australian Core Skills Framework (ACSF) level 5 to undertake a vocational training pathway or workplace tasks.

This unit is designed for integration and contextualisation with vocational units to support achievement of vocational competency.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Unit Sector

Numeracy

Elements and Performance Criteria

Element	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Manipulate algebraic expressions	1.1 Expand and simplify algebraic expressions and equations 1.2 Factorise algebraic expressions 1.3 Simplify algebraic fractions
2. Draw graphs and interpret the real-life situations they represent	2.1 Draw and describe Cartesian graphs of relevant linear and non-linear algebraic equations 2.2 Identify key features of linear and non-linear graphs 2.3 Describe the impact of adding a constant to an equation

Element	Performance Criteria
	2.4 Explain the real-life situations represented by parabolas, hyperbolas and exponential graphs
3. Solve a range of equations	3.1 Find solutions to linear equations 3.2 Solve quadratic equations 3.3 Solve simultaneous equations 3.4 Solve practical problems involving equations

Foundation Skills

This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.

Skill	Performance Criteria	Description
		Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Mapping Information

Not applicable

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=f572fe10-a855-4986-9295-3852c771f178>

Assessment Requirements for FSKNUM35 Use algebraic and graphical techniques to analyse mathematical problems for work

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Performance Evidence

Evidence of the ability to:

- manipulate and factorise algebraic expressions
- draw graphs of relevant linear and non-linear equations
- solve linear and quadratic equations
- solve simultaneous equations.

Note: Where a specific volume and/or frequency is not specified, evidence must be provided at least once.

Knowledge Evidence

Evidence of the following knowledge must be demonstrated:

- a range of methods of factorisation.

Assessment Conditions

Assessment texts and tasks reflect those typically found in the workplace.

Individuals can access a broad range of support resources.

Culturally appropriate processes and techniques suited to the language, literacy and numeracy capacity of individuals and the work being performed must be used.

Reasonable adjustments can be made to ensure equity in assessment for people with disabilities.

Assessors must satisfy NVR/AQTF assessor requirements, have a sound knowledge of the ACSF and have demonstrable expertise in the vocational contextualisation and assessment of the core skill - numeracy.

Links

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