



Australian Government

FSKNUM39 Use introductory calculus 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 introductory concepts of calculus.

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. Demonstrate knowledge of features of graphs of functions	1.1 Identify differences between functions and relations 1.2 Describe the domain and range of a function 1.3 Evaluate functions 1.4 Solve simple equations of the form $f(x) = 0$ 1.5 Sketch graphs of functions and identify key features
2. Calculate limits and find simple derivatives	2.1 Find limits 2.2 Use the standard definition of the derivative of a function 2.3 Use first principles to differentiate simple polynomial functions 2.4 Differentiate simple polynomial functions and use correct

Element	Performance Criteria
	notation 2.5 Interpret the gradient at a given point on the graph of a function

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
Technology		Uses a scientific calculator and/or graphing software

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 FSKNUM39 Use introductory calculus for work

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Performance Evidence

Evidence of the ability to:

- solve equations
- calculate limits
- use first principles to differentiate simple functions
- differentiate simple polynomial functions.

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:

- functions and relations
- domain and range.

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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