



Australian Government

Assessment Requirements for FSKNUM039

Use introductory calculus for work

Release: 1

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Modification History

Release	Comments
Release 1	This version first released with FSK Foundation Skills Training Package Version 2.0.

Performance Evidence

The candidate must demonstrate the ability to complete the tasks outlined in the elements, performance criteria and foundation skills of this unit, including evidence of the ability to:

- perform a broad range of multi-step mathematical problem solving processes using introductory calculus to complete a workplace task, including:
 - sketching graphs of linear and quadratic functions and solving equations of the form $f(x) = 0$
 - applying and calculating limits
 - applying and calculating the derivative of polynomial functions
 - interpreting the gradient at a given point on the graph of a polynomial function
- make estimations to check problem solving outcomes and determine appropriate accuracy required for above workplace task
- critically review mathematical processes and outcomes obtained, and evaluate real-world implications.

In the course of the above the candidate must demonstrate use and application of relevant technology.

Knowledge Evidence

The candidate must be able to demonstrate knowledge to complete the tasks outlined in the elements, performance criteria and foundation skills of this unit, including knowledge of:

- purpose and application of basic calculus to workplace contexts
- key features of, and differences between numbers, functions and relations and their properties
- key features of linear and quadratic functions
- purpose, application and calculation of the derivative of polynomial functions
- problem solving techniques to analyse results
- purpose and use of relevant technology, such as a CAS calculator, spreadsheets or other mathematical or workplace software

- implications of calculations and results for workplace tasks
- developed estimation and evaluation processes
- specialised and formal mathematical language and symbolism relevant to workplace task.
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Assessment Conditions

Competency is to be assessed in the workplace, a workplace simulated environment or a vocational training context.

Assistive technologies can be utilised to assist with oral and written communication.

Skills must be demonstrated independently using highly complex texts and tasks that reflect those typically found in a workplace.

The following resources are to be made available:

- a scientific calculator or graphing software
- own familiar support resources.

Assessors must:

- satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards, and
- have sound knowledge of the ACSF and performance features of the ACSF level being assessed, and
- have demonstrable expertise, knowledge and skills in the vocational contextualisation and assessment of the core skill, numeracy, and
- have completed the following or equivalent:
 - TAESS00009 Address Foundation Skills in Vocational Practice Skill Set; or
 - a higher level education qualification, such as:
 - TAE80113 Graduate Diploma of Adult Language, Literacy and Numeracy Practice (and its equivalent TAE70111); or
 - Bachelor of Education, Graduate Certificate or Graduate Diploma of Education, or higher. This may include qualifications relating to TESOL, adult education or vocational education.
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Links

Companion Volume Implementation Guide is found on VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=f572fe10-a855-4986-9295-3852c771f178>