



Australian Government

FSKNUM030 Use common functions of a scientific calculator for work

Release: 1

FSKNUM030 Use common functions of a scientific calculator for work

Modification History

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

Application

This unit describes the skills and knowledge to use the routine functions of a scientific calculator to undertake mathematical calculations for workplace tasks. Mathematical calculations include working with a range of rational numbers, including positive and negative numbers, and powers and roots, rates and ratios.

An individual performing these tasks works independently and uses support from a range of established resources.

This unit applies to individuals who use, or are preparing to use, numeracy skills to complete workplace activities. This includes existing workers and individuals preparing for employment through vocational education and training. This unit should be integrated and contextualised with vocational training to support achievement of vocational competency.

This unit is aligned to, but does not fully address, the Australian Core Skills Framework (ACSF) numeracy core skill indicators .09, .10 and .11 at level 4 in the workplace and employment domain of communication.

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. Extract and interpret mathematical information relevant to workplace	1.1 Identify mathematical problem in workplace task requiring solution with a scientific calculator

Element	Performance Criteria
calculations	1.2 Extract and interpret a range of mathematical information relevant to calculations embedded in workplace tasks and texts 1.3 Identify required function keys on scientific calculator necessary to solve mathematical calculation
2. Solve mathematical calculations with a scientific calculator	2.1 Select and use a range of mathematical problem solving strategies to undertake workplace task 2.2 Estimate outcome of calculations to complete workplace task 2.3 Perform a range of multistep calculations using a number of different function keys on a scientific calculator to complete workplace task 2.4 Check and reflect on mathematical problem solving processes and outcomes in relation to initial estimates and the workplace context
3. Communicate calculation information	3.1 Use formal, informal and some specialised mathematical representation to document and communicate workplace calculation processes, results and implications 3.2 Use formal, informal and some specialised mathematical language to discuss and explain workplace calculation processes, results and implications

Foundation Skills

This section describes language, literacy, numeracy and employment skills that are essential to performance but not explicit in the performance criteria.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Mapping Information

Supersedes and is equivalent to FSKNUM30 Use common functions of a scientific calculator for work.

Links

Companion Volume Implementation Guide is found on VETNet -

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

Assessment Requirements for FSKNUM030 Use common functions of a scientific calculator for work

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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:

- use each of the following functions on a scientific calculator:
 - four standard arithmetical operations
 - memory functions
 - square root
 - power function
- perform a range of multi-step workplace calculations, to complete a workplace task, including:
 - using rational numbers, including positive and negative numbers, and powers and roots
 - making estimations to check problem solving outcomes and determine appropriate accuracy required for task
 - evaluating mathematic processes used and outcomes obtained, and evaluating implications for workplace task.
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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:

- problem solving processes to solve workplace problems requiring calculations with a scientific calculator
- order of operations and use of brackets/parentheses for mathematical calculations
- purpose and use of a range of function keys on a scientific calculator required to complete the required calculations
- estimation and evaluation processes and implications of calculations and results for workplace tasks

- specialised, formal and informal mathematical written and oral language and symbolism relevant to workplace calculations.
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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 using complex texts and tasks that reflect those typically found in a workplace.

The following resources are to be made available:

- a scientific calculator
- data utilised in the performance evidence
- 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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