



**Australian Government**

# **Assessment Requirements for ICTPRG442**

## **Apply mathematical techniques for software development**

**Release: 1**

# Assessment Requirements for ICTPRG442 Apply mathematical techniques for software development

## Modification History

| Release   | Comments                                                                                                     |
|-----------|--------------------------------------------------------------------------------------------------------------|
| Release 1 | This version first released with ICT Information and Communications Technology Training Package Version 6.0. |

## 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:

- manipulate algebraic terms and evaluate at least three numerical expressions in software development
- solve and evaluate at least three different mathematical problems
- create at least two mathematical formulas in standard algebraic form and at least two mathematical formulas in standard computer notation
- simplify and evaluate at least two Boolean expressions and formulas
- convert two sets of numeric values between binary, decimal and hexadecimal number systems as required in software development.

## Knowledge Evidence

elements, performance criteria and foundation skills of this unit, including knowledge of:

- Boolean algebra, number types, numerical and algebraic expressions, simple equations and standard computer notation that may be used to apply mathematical techniques for software development
- binary, decimal and hexadecimal number systems
- memory requirements for different number formats including binary, integer, decimal and negatives
- mathematical terms application and operations in computing
- calculation tools available
- organisational procedures impacting on applying mathematical techniques for software development.

## Assessment Conditions

Skills in this unit must be demonstrated in a workplace or simulated environment where the conditions are typical of those in a working environment in this industry.

This includes access to:

- programming language, tools and licensing
- software development tools and environment
- hardware components and required software.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volume Implementation Guide is found on VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=a53af4e4-b400-484e-b778-71c9e9d6aff2>