



Australian Government

**Assessment Requirements for MEM30012
Apply mathematical techniques in a
manufacturing engineering or related
environment**

Release: 1

Assessment Requirements for MEM30012 Apply mathematical techniques in a manufacturing engineering or related environment

Modification History

Release 1. Supersedes and is equivalent to MEM30012A Apply mathematical techniques in a manufacturing engineering or related environment.

Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy the requirements of the elements and performance criteria and include:

- solving engineering problems using concepts of arithmetic on at least two occasions
- two-dimensional geometry
- trigonometry
- graphing linear functions
- solving quadratic equations
- performing basic statistical calculations.

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

Knowledge Evidence

Evidence required to demonstrate the required knowledge for this unit must be relevant to and satisfy the requirements of the elements and performance criteria and include knowledge of:

- concepts of mathematics
- correct order of operations
- complex figures
- transposing and evaluating formulae
- polynomials
- straight line coordinate geometry
- indices
- trigonometry
- circular functions
- trigonometry of oblique triangles
- trigonometric identities
- functions and their graphs.

Assessment Conditions

- Assessors must:
 - have vocational competency in applying mathematical techniques in a manufacturing, engineering or related environment at least to the level being assessed with relevant industry knowledge and experience
 - satisfy the assessor requirements in the Standards for Registered Training Organisations 2015 or its replacement and comply with the National Vocational Education and Training Regulator Act 2011, its replacement or equivalent legislation covering VET regulation in a non-referring state/territory as the case requires.
- Where possible, assessment must occur in operational workplace situations. Where this is not possible or where personal safety or environmental damage are limiting factors, assessment must occur in a sufficiently rigorous simulated environment that reflects realistic operational workplace conditions that cover all aspects of workplace performance, including environment, task skills, task management skills, contingency management skills and job role environment skills.
- Conditions for assessment must include access to all tools, equipment, materials and documentation required including relevant workplace procedures, product and manufacturing specifications.

Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b7050d37-5fd0-4740-8f7d-3b7a49c10bb2>