New Zealand Scholarship Calculus

Calculus assessment specification

Scholarship Performance Standard (93202)	Calculus
Mode of Assessment	Written Examination
For Year	2016

Content Description

Questions will be set in the areas of:

- patterns and relationships
- equations and expressions
- Calculus at level 7 and level 8.

The questions could be taken from **ANY** level 8 Mathematics AOs of the New Zealand Curriculum (M8–1 to M8–12).

Format of the assessment

There will be five (5) questions. Some choice may be given within one question.

Individual questions may cover the content of more than one area. Questions may be set in both mathematical and real-life contexts. Questions involving unfamiliar situations may be set, but necessary information will be supplied in the question.

Equipment to bring

Use of an approved graphics or CAS calculator is advised.

Resources or information supplied

A <u>Calculus Formulae and Tables booklet (PDF, 1.1MB)</u> will be provided. A separate answer booklet will be provided.

Special notes

Answers will often be required in an exact form, e.g. involving surds or algebraic formats. Minor errors caused by rounding will not be penalised. It is expected that all relevant working will be shown.

Part-questions may require written responses. This may be comparison or discussion of mathematical models, procedures, or techniques – their uses, benefits, and/or limitations.

Further clarification of the standard

The use of models will not be restricted to algebraic models but may include graphical or tabular models. Answers developed using a CAS calculator will require all CAS commands to be shown. Correct answers only will not be sufficient.