



Rangi Ruru
Girls' School

LEVEL 3 CALCULUS - TATOU PROGRAMME OF LEARNING 2025

Welcome to the study of Level 3 Mathematics with Calculus. We hope that you find this course interesting, thought provoking, challenging in a positive way, and that you progress in your ability to successfully solve problems using Mathematical thinking and methods.

Calculus is an important branch of Mathematics that plays a major role in many scientific careers, from engineering to design, and also in business-related fields such as finance.

Students of Calculus also develop the dispositions of thinking creatively, critically, strategically, and logically. They also learn to structure, organise, process and communicate information effectively.

This year you will concentrate on **solving problems** using...

- Algebraic methods
- Trigonometric methods
- Differentiation methods
- Integration methods

Work Organisation

A write on Notes booklet is issued for each topic and you will be expected to complete them and keep them carefully for future reference.

An online copy of the Delta Level 3 Calculus textbook will be issued for this course, and you will be given a Nulake Workbook which will be used for important homework revision and reinforcement.

This course can be challenging if you do not complete regular content reinforcement (homework), including completing exercises set during lessons. It is recommended that you complete 1 hour of 'homework' for each teaching class period of Calculus. Attending at least one Mathematics tutorial each week is strongly recommended. The three External Achievement Standards are all strongly linked and so you will need to study and achieve all three to ensure success and an accurate reflection of your Learning from the year

**Achievement Standards offered in
LEVEL 3 CALCULUS 2025**

Achievement Standard Number	Subject ref.	Version number	Topic/Title	Mode of Assessment	Credits
91575	3.3	2	Apply trigonometric methods on solving problems	Internal	4
91577	3.5	2	Apply the algebra of complex numbers in solving problems	External	5
91578	3.6	2	Apply differentiation methods in solving problems	External	6
91579	3.7	2	Apply integration methods in solving problems	External	6

ASSESSMENT PROCEDURES

4 Achievement Standards will be offered with a total of 21 credits.

3 Achievement Standards will be assessed by an **external** examination (17 credits).

Tests and task sheets will be given regularly throughout the year to give you practice in answering questions related to the topics being studied. After the Algebra, Differentiation and Integration topics you will sit an examination to obtain a derived grade (DG) which will be used if you cannot sit the NCEA examination at the end of the year.

1 Achievement Standard will be assessed **internally** during the year (4 credits).

Important Information for Internal Assessments

- **Absences** – It is important that you do not miss any assessments (Internal or External) except for genuine reasons of sickness, accident or other extreme emergency. Providing a Medical Certificate from your Doctor must cover absence during an assessment. On your return to school you will be given the opportunity to do the task for the particular Achievement Standard. This will NOT be possible if you choose to go on a family holiday, or similar non-school related event, at the time of assessment.
- **Assessment Policies** – Information regarding the school policy on assessment, authenticity and appeal procedures is found on <https://hub.rangiruru.school.nz/assessment/>. Ensure you read these thoroughly and follow all guidelines. Know your rights and responsibilities.
- **Filing** – When an Internal assessment task has been marked you will be asked to **verify the sighting and acceptance of the grade awarded by signing the cover sheet**. All assessed work will then be filed at school for security and for moderation by NZQA, if required.
- **Assessment** – If a ‘**Not Achieved**’ grade is awarded for an **internally** assessed Achievement Standard, there will be no further assessment opportunities in that Achievement Standard.
- You **may be** offered the opportunity of a **resubmission** if your work requires minor corrections or change that you may have overlooked and should be able to identify within a few minutes. Your teacher will approach you prior to the task being handed back to the class as a whole if this is relevant for you. You will be required to identify and make any changes immediately. Your teacher is **not** able to tell you of the specific change required; you must be able to identify the required change yourself.