



**HSC Mathematics Extension 1**

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10
<b>Term 1</b>	Extension Arithmetic & Algebra			Extension Linear Functions			Circle Geometry		<i>Revision &amp; Task 1</i>	Circle Geometry Cont.
<b>Term 2</b>	Circle Geometry Cont.	Polynomials				<i>Mid-course Exam</i>	Further Trigonometry			
<b>Term 3</b>	Permutations & Combinations				Further Locus				<i>Review</i>	<i>Final Exam</i>

**Assessment**

The rules for HSC Mathematics Extension 1 are as set out in the Bowral High School HSC Course Assessment Guide. Students should familiarise themselves with these rules. The assessment program for Mathematics Extension 1 is set out in the table below:-

### Mathematics Extension 1 Assessment Task Schedule

COURSE: MATHEMATICS EXTENSION 1						
Outcomes	Components (syllabus)	Weighting (syllabus)	Task 1	Task 2	Task 3	Task 4
			Term 1 Week 9	Term 2 Week 5	Term 3 Week 3	Term 3 Week 10/11
			Work Samples & Revision Test	Mid- Course Exam	Work Samples & Revision Test	Final Exam
PE1 - PE6	Knowledge, understanding and skills	70	10	15	15	30
PE1 - PE6	Reasoning, interpretative, explanatory and communicative abilities	30	5	10	5	10
	<b>Marks</b>	<b>100</b>	<b>15</b>	<b>25</b>	<b>20</b>	<b>40</b>

#### Reporting

A student progress report will be provided after the mid-course exam and at the end of the course. The report for each student will show:-

1. A Grade indicating the level of achievement in each area studied during the assessment period. These Grades will be based on the individual student's achievement in the course. The areas of assessment in HSC Mathematics Extension 1 are:-

#### Preliminary Extension 1 Mathematics – Mid-course

- Extensions in basic arithmetic and algebra, including inequalities
- Polynomials
- Counting techniques, permutations and combinations
- Circle geometry and deductive reasoning
- Applying mathematical skills and knowledge to problem solving involving multi-step deductive reasoning

#### Preliminary Extension 1 Mathematics – Final report

- Solves problems involving circle geometry
- Solves problems involving trigonometric ratios
- Uses the parametric representation together with differentiation to identify geometric properties of parabolas
- Determines derivatives using more than one rule of differentiation

- Uses appropriate mathematical language, diagrams and notations when solving problems

**The grades awarded will be: Outstanding, High, Sound, Basic, Limited, N** (fails to meet course requirements in the HSC Certificate), **n/a** (If the student was not at BHS for this work)

2. A personal profile for responsible learning, using the categories; **Always, Usually, Sometimes, Rarely.**
  - Brings required equipment to class / is prepared
  - Listens attentively and follows instructions
  - Participates positively in class and discussions
  - Interacts positively with teachers and students
  - Works independently and is self motivated
  - Meets homework/assignment deadlines
3. An indication of the number of lessons missed by the student.
4. Confirmation that the student is meeting course requirements for the HSC Certificate in Mathematics Extension 1.
5. Teacher comment.

### Special Notes

- **Homework** will be given on a regular basis and its completion and follow-up is considered to play an important part in building student confidence and skills in Mathematics.
- **Calculators** and their effective use are an essential part of senior Mathematics Courses and all students are required to have a scientific calculator with them in every mathematics lesson and for all assessment tasks. We strongly recommend you purchase a calculator through the Finance Office at Bowral High where we sell an approved calculator **at cost price**. This calculator is suitable for use through to Year 12 and beyond. Calculators purchased elsewhere may not have the required features.
- **Calculators may be used in all assessment tasks and in the HSC Examination in Mathematics Extension 1.**
- **Geometry Equipment:** All students are expected to have a set of geometrical instruments consisting of a pair of compasses, a protractor, a setsquare, a ruler and a pencil. At the moment a geometry set is offered free as a bonus item with the purchase of a calculator through the Finance Office (see above).
- If, at any time, you would like to discuss your child's progress in Mathematics you may contact their Mathematics Teacher or Mr Reynolds, on 48612255.

**M. Reynolds - Head Teacher Mathematics**