**Sample Assessment Outline**

Mathematics Methods

ATAR Year 12

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Sample assessment outline

Mathematics Methods – ATAR Year 12

Unit 3 and Unit 4

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Assessment type**  | **Assessment type weighting**  | **Assessment** **taskweighting** | **When** | **Assessment** | **Syllabus content** |
| Response | 40% | 6% | Semester 1Week 5 | **Task 2:** In-class test | **Further differentiation and applications:** exponential and trigonometric functions, differentiation rules, the second derivative and applications of differentiation |
| 8% | Semester 1Week 10 | **Task 3:** In-class test | **Integrals:** anti-differentiation, definite integrals and the Fundamental theorem, applications of integration |
| 7% | Semester 1Week 13 | **Task 4:** In-class test | **Discrete random variables:** general discrete random variables, Bernoulli and binomial distributions |
| 6% | Semester 2Week 5 | **Task 7:** In-class test | **The logarithmic function:** logarithmic functions, calculus of the natural logarithmic functions |
| 7% | Semester 2Week 9 | **Task 8:** In-class test | **Continuous random variables and the normal distribution:** general continuous random variables, normal distributions |
| 6% | Semester 2Week 14 | **Task 10:** Assignment with in-class validation | **Interval estimates for proportions:** random sampling, sample proportions, confidence intervals for proportions |
| Investigation  | 20% | 6% | Semester 1Week 3 | **Task 1:** Select, adapt and apply models to investigate and solve practical problems | **Further differentiation and applications:** exponential and trigonometric functions |
| 6% | Semester 2Week 3 | **Task 6:** Select, adapt and apply models to investigate and solve practical problems | **The logarithmic function:** logarithmic functions  |
| 8% | Semester 2Week 13 | **Task 9:** Plan, research, conduct and communicate the findings of an investigation | **Interval estimates for proportions:** random sampling and sample proportions |
| Examination | 40% | 15% | Semester 1Week 15 | **Task 5: Semester 1 examination** Two sections, Calculator-free (50 mins) and Calculator-assumed (100 mins) | Application of mathematical understanding and skills to analyse, interpret and respond to a variety of question types that require both open and closed responses based on Unit 3 content |
| 25% | Semester 2Week 15 | **Task 11: Semester 2 examination** Two sections, Calculator-free (50 mins) and Calculator-assumed (100 mins) | Application of mathematical understanding and skills to analyse, interpret and respond to a variety of question types that require both open and closed responses based on Unit 3 and Unit 4 content |
| **Total** | **100%** | **100%** |  |  |  |