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 task weighting | When | Assessment | Syllabus content |
| **Response** | 40% | 9% | Semester 1  Week 8 | **Task 2:** In-class test | **Further differentiation and applications:** exponential and trigonometric functions, differentiation rules, the second derivative and applications of differentiation  (3.1.1–3.1.16)  **Integrals:** anti-differentiation, definite integrals and the Fundamental theorem (3.2.1–3.2.17) |
| 10% | Semester 1  Week 14 | **Task 3:** In-class test | **Integrals:** applications of integration (3.2.18–3.2.22)  **Discrete random variables:** general discrete random variables, Bernoulli and binomial distributions  (3.3.1–3.3.16) |
| 7% | Semester 2  Week 7 | **Task 6:** In-class test | **The logarithmic function:** logarithmic functions, calculus of the natural logarithmic functions (4.1.1–4.1.14)  **Continuous random variables:** general continuous random variables (4.2.1–4.2.4) |
| 14% | Semester 2  Week 14 | **Task 7:** In-class test | **Continuous random variables and the normal distribution:** normal distributions(4.2.5–4.2.7)  **Interval estimates for proportions:** random sampling, sample proportions, confidence intervals for proportions (4.3.1–4.3.10) |
| **Investigation** | 20% | 10% | Semester 1  Week 5 | **Task 1:** Plan, research, conduct and communicate the findings of an investigation | **Further differentiation and applications:** differentiation rules, applications of differentiation (3.1.7–3.1.16) |
| 10% | Semester 2  Week 2 | **Task 5:** Select, adapt and apply models to investigate and solve practical problems | **The logarithmic function:** logarithmic functions  (4.1.1–4.1.8) |
| **Examination** | 40% | 15% | Semester 1  Week 15 | **Task 4: 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 2  Week 15 | **Task 8: 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%** |  |  |  |