Sample Assessment Outline

Mathematics Specialist

ATAR Year 11

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Sample assessment outline

Mathematics Specialist – ATAR Year 11

Units 1 and 2

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Assessment type** | **Assessment type weighting** | **Assessment task weighting** | **Semester/Week** | **Assessment description** |
| Response | 40% | 12% | Semester 1 Week 4 | **Task 1:** Test 1 – Geometry: The nature of proof, Circle properties (1.1.1–1.1.15) |
| 7% | Semester 1 Week 12 | **Task 2:** Test 2 – Vectors in the plane: Representing vectors by directed line segments, Algebra of vectors (1.3.1–1.3.14) |
| 9% | Semester 2 Week 4 | **Task 5:** Test 3 – Trigonometry: The basic trigonometric functions, Compound angles, The reciprocal trigonometric functions, Trigonometric identities and Applications of trigonometric functions to model periodic phenomena (2.1.1–2.1.9) |
| 12% | Semester 2 Week 14 | **Task 8:** Test 4 – Matrices: Matrix arithmetic, Transformations in the plane and Systems of linear equations (2.2.1–2.2.11), Real and complex numbers: Proofs involving numbers, Rational and irrational numbers and An introduction to proof by mathematical induction (2.3.1–2.3.6) |
| Investigation | 20% | 7% | Semester 1 Weeks 8 | **Task 3:** Investigation 1 – Students use the mathematical thinking process and course related knowledge from Combinatorics (1.2) to select, adapt and apply models to investigate and solve a practical scenario |
| 6% | Semester 2 Week 8 | **Task 6:** Investigation 2 – Students use the mathematical thinking process and course related knowledge from Matrix arithmetic (2.2.1–2.2.10) to plan, research, conduct and communicate the findings of an investigation |
| 7% | Semester 2 Week 13 | **Task 7:** Investigation 3 – Students use the mathematical thinking process and course related knowledge from Complex numbers and The complex plane (2.3.7–2.3.13) to plan, research, conduct and communicate the findings of an investigation |
| Examination | 40% | 15% | Semester 1 Week 15 | **Task 4:** Semester 1 examination – Section One: calculator-free (35%), Section Two: calculator-assumed (65%)  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 1 content. |
| 25% | Semester 2 Week 15 | **Task 9:** Semester 2 examination – Section One: calculator-free (35%), Section Two: calculator-assumed (65%)  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 1 and Unit 2 content. |
| **Total** | **100%** | **100%** |  |  |