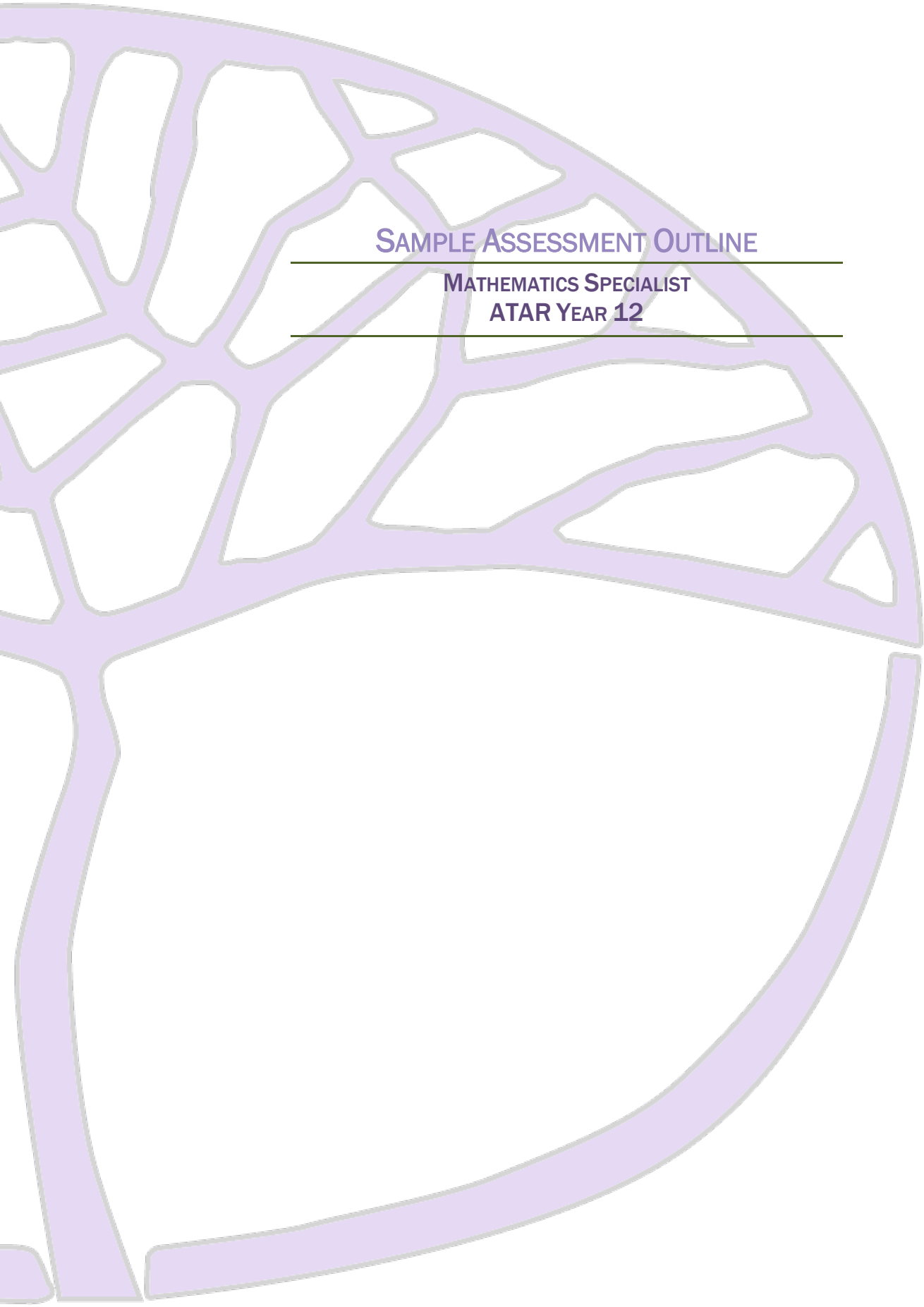




SAMPLE ASSESSMENT OUTLINE

**MATHEMATICS SPECIALIST
ATAR YEAR 12**



Copyright

© School Curriculum and Standards Authority, 2017

This document – apart from any third party copyright material contained in it – may be freely copied, or communicated on an intranet, for non-commercial purposes in educational institutions, provided that the School Curriculum and Standards Authority is acknowledged as the copyright owner, and that the Authority's moral rights are not infringed.

Copying or communication for any other purpose can be done only within the terms of the *Copyright Act 1968* or with prior written permission of the School Curriculum and Standards Authority. Copying or communication of any third party copyright material can be done only within the terms of the *Copyright Act 1968* or with permission of the copyright owners.

Any content in this document that has been derived from the Australian Curriculum may be used under the terms of the Creative Commons [Attribution 4.0 International \(CC BY\)](#) licence.

Disclaimer

Any resources such as texts, websites and so on that may be referred to in this document are provided as examples of resources that teachers can use to support their learning programs. Their inclusion does not imply that they are mandatory or that they are the only resources relevant to the course.

Sample assessment outline

Mathematics Specialist – ATAR Year 12

Unit 3 and Unit 4

Assessment type	Assessment type weighting	Assessment Task weighting	When	Assessment	Syllabus content
Response	40%	7%	Semester 1 Week 5	Task 1: In-class test	Complex numbers: Cartesian forms and complex arithmetic using polar form, the complex plane, roots of complex numbers and factorisation of polynomials
		7%	Semester 1 Week 9	Task 2: Assignment with in-class validation	Functions and sketching graphs
		7%	Semester 1 Week 14	Task 4: In-class test	Vectors in three dimensions: the algebra of vectors in three dimensions, vector and Cartesian equations and vector calculus, systems of linear equations
		6%	Semester 2 Week 5	Task 7: In-class test	Integration and applications of integration: integration techniques and applications of integral calculus
		6%	Semester 2 Week 10	Task 9: In-class test	Rates of change and differential equations: applications of differentiation and modelling motion
		7%	Semester 2 Week 14	Task 10: In-class test	Statistical inference: sample means and confidence intervals for means
Investigation	20%	6%	Semester 1 Week 12	Task 3: Select, adapt and apply models to investigate and solve practical problems	Vectors in three dimensions: vector and Cartesian equations
		7%	Semester 2 Week 4	Task 6: Plan, research, conduct and communicate the findings of an investigation	Integration and applications of integration
		7%	Semester 2 Week 8	Task 8: Select, adapt and apply models to investigate and solve practical problems	Rates of change and differential equations: applications of differential equations
Examination	40%	15%	Semester 1 Week 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 2 Week 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%			