

# Subject report: Endorsement

## Specialist Mathematics — 2026 cohort

This resource identifies strengths and opportunities to improve the development and submission of internal assessment instruments for Specialist Mathematics (General subject and alternative sequence (AS)). Refer to *QCE and QCIA policy and procedures handbook v7.0*, [Section 9.5](#).

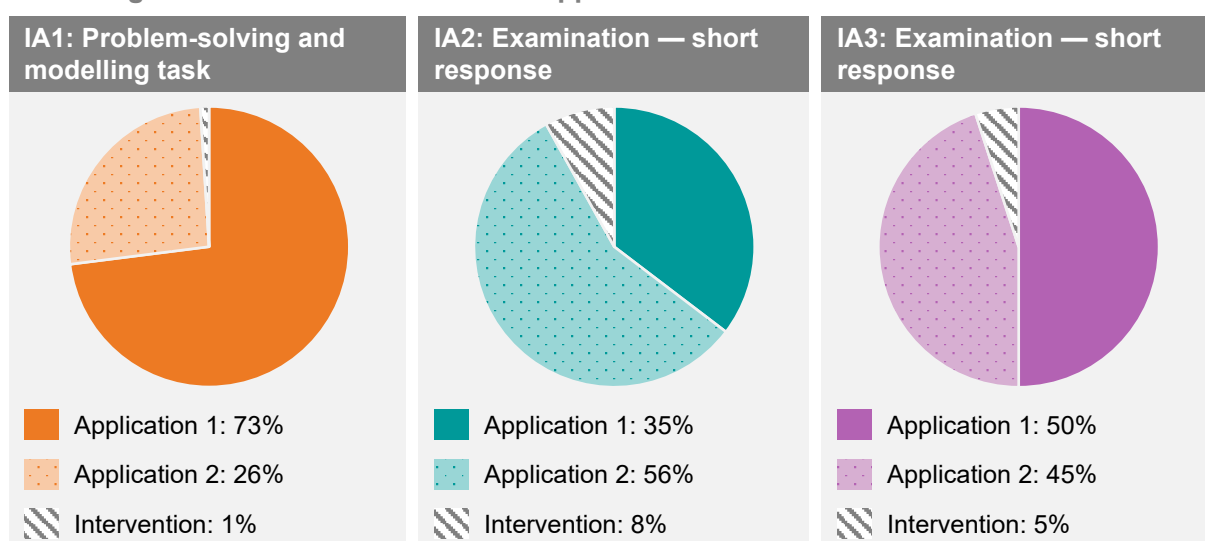
### Summary of endorsement for the 2026 cohort

#### Number of internal assessment (IA) instruments submitted for endorsement

IA1	IA2	IA3
318	319	319

**Note:** Number of instruments may vary due to changes in schools offering the subject after the endorsement process started.

#### Percentage of instruments endorsed at Applications 1 and 2



**Note:** Percentages have been rounded to whole numbers and, therefore, may not add up to 100%.

#### Validity: Reasons for non-endorsement at Application 1 by assessment priority

IA1	IA2	IA3
Alignment: 37	Alignment: 169	Alignment: 116
Authentication: 9	Authentication: 0	Authentication: 0
Authenticity: 17	Authenticity: 7	Authenticity: 11
Item construction: 24	Item construction: 38	Item construction: 9
Scope and scale: 23	Scope and scale: 42	Scope and scale: 26

#### Accessibility: Reasons for non-endorsement at Application 1 by assessment priority

IA1	IA2	IA3
Bias avoidance: 0	Bias avoidance: 3	Bias avoidance: 2
Language: 4	Language: 31	Language: 20
Layout: 2	Layout: 3	Layout: 6
Transparency: 2	Transparency: 38	Transparency: 24

**Note:** A priority may be identified more than once in the endorsement decision for an assessment instrument.

# Advice for assessment design

Endorsement is the quality assurance process based on the attributes of validity and accessibility. The following advice is based on the endorsement process for the 2026 completion year. In acknowledging effective practices and areas for refinement, it offers schools timely and evidence-based guidance to further develop valid and accessible assessment.

## ■ IA1: Problem-solving and modelling task (20%)

### Effective practices

Assessment instruments demonstrated validity and accessibility when:

- tasks provided opportunities for students to independently formulate, solve, evaluate and communicate using appropriate Specialist Mathematics subject matter (**alignment**)
- contexts were sufficiently open while still requiring Specialist Mathematics techniques, e.g. use of matrices (**item construction**)
- stimulus and data were relevant, sufficient and allowed students to make choices that supported unique student responses (**scope and scale**)
- tasks were meaningfully contextualised and sufficiently different from Queensland Curriculum and Assessment Authority (QCAA) sample assessments and annotated responses (**authenticity**).

### Practices to strengthen

Schools can improve the validity and accessibility of assessment instruments by:

- removing references to specific concepts, techniques or processes, e.g. Leslie matrices, Markov chains, dominance matrices, eigenvalues (**item construction**)
- ensuring tasks require students to use Specialist Mathematics subject matter and cannot be completed using only Mathematical Methods approaches (**alignment**)
- providing sufficient stimulus and sample data so the appropriateness of the task's scope and scale can be determined (**scope and scale**)
- ensuring checkpoints allow feedback on only one complete or near-complete draft and clearly identifying final submission requirements (**authentication**).

## ■ IA2: Examination — short response (15%)

### Effective practices

Assessment instruments demonstrated validity and accessibility when:

- questions assessed appropriate Unit 3 subject matter and provided opportunities to demonstrate the required syllabus objectives (**alignment**)
- questions were accurately classified as simple familiar, complex familiar or complex unfamiliar and collectively met the required difficulty profile (**scope and scale**)
- questions were constructed so students could demonstrate reasoning without unnecessary scaffolding or cues to the solution pathway (**item construction**)
- technology-free and technology-active expectations were clear and matched the marking scheme and mark allocation (**transparency**).

### Practices to strengthen

Schools can improve the validity and accessibility of assessment instruments by:

- ensuring all questions assess Unit 3 subject matter from the nominated three topics only, i.e. the other two topics are not assumed knowledge (**alignment**)
- checking that questions match the syllabus descriptions for simple familiar, complex familiar and complex unfamiliar before finalising the mark distribution (**scope and scale**)
- including at least one opportunity for students to evaluate the reasonableness of solutions, as required by the assessment objectives (**alignment**)
- clearly identifying when an algebraic, analytical, vector-calculus method or technology-free response is required, particularly where technology could otherwise be used (**transparency**).

## ■ IA3: Examination — short response (15%)

### Effective practices

Assessment instruments demonstrated validity and accessibility when:

- questions assessed appropriate Unit 4 subject matter and matched the selected IA3 topics identified in the assessment specifications, and did not assume knowledge from topics not assessed (**alignment**)
- examinations provided opportunities to demonstrate the required objectives, including evaluating the reasonableness of solutions (**alignment**)
- questions were accurately classified as simple familiar, complex familiar or complex unfamiliar and matched the required level of difficulty (**scope and scale**)
- instructions clearly identified required methods, conditions and technology expectations, especially where algebraic working was expected (**transparency**).

### Practices to strengthen

Schools can improve the validity and accessibility of assessment instruments by:

- ensuring questions assess Unit 4 Specialist Mathematics subject matter and cannot be completed using only Mathematical Methods techniques (**alignment**)
- providing differential equations where required, rather than asking students to develop models outside the syllabus requirements (**alignment**)
- checking that complex familiar and complex unfamiliar questions are not overly scaffolded or immediately identifiable from the question wording (**item construction**)
- proofreading questions, diagrams and marking schemes to correct errors in notation, terminology, units, grammar and formatting (**language**).

## Additional advice

- Before submission, schools should conduct a final quality assurance check of the instrument, marking scheme and instrument-specific marking guide (ISMG) to ensure alignment, accuracy and completeness.
- Schools should use the Print preview function in the Endorsement app to check formatting, page breaks, diagrams, tables and mathematical notation before submitting instruments.
- For IA2 and IA3, marking schemes should clearly align with the question paper and identify mark allocation, acceptable responses and follow-through processes.



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