



## Alternative Certification Model 2020–21: National QA Exercise Key Messages

<b>Subject</b>	<b>Mathematics</b>
<b>Level</b>	<b>Higher</b>

This report provides information on themes emerging from the national quality assurance exercise, which is part of the Alternative Certification Model for National 5, Higher and Advanced Higher courses.

A sample of candidates' assessed work from selected centres was reviewed to determine whether assessment was in line with the national standard. The evidence submitted may have been partial or incomplete and is unlikely to have represented all of the evidence that will be gathered to allow the centre to determine a provisional result.

The centres selected for review in this subject and at this level have been provided with specific feedback on the evidence that they submitted. The comments below highlight key points about the assessment approaches and instruments used and the sampled centres' assessment judgements, for all centres delivering the subject at this level to reflect upon and make any appropriate adjustments.

## Section 1: Comments on approach to assessment

Most centres provided evidence of a non-calculator and a calculator paper for each candidate. Some centres provided only one of these, but noted their intention to sit the other paper at a later date. Some centres also provided evidence of unit-level assessments and topic tests. In most cases, these were in addition to a course assessment.

The evidence submitted for the selections was from a variety of sources, including the SQA 2021 paper, commercial question papers and centre-devised papers.

The majority of non-SQA assessments did not meet the national standard as they were lacking marks at grade A.

Analysis grids for the 2018 and 2019 SQA papers were available in the subject-specific guidance. The analysis grid for the 2021 paper was available on the SQA secure site. Some centres took advantage of the analysis grids, and provided evidence of checking the balance between grade C and grade A marks.

Some centres abbreviated the SQA 2021 paper to fit centre time constraints, and successfully maintained the balance of skills, and grade C and grade A marks.

In some commercial and centre-produced papers, specific skills were assessed on more than one occasion. This meant there was greater emphasis on these skills, and therefore their impact on determining the overall outcomes of candidates' performances.

Some questions assessed skills at a lower level. For example, completing the square with a unitary coefficient of the squared term, and identifying the coordinates of a point in three dimensions.

Often, marking instructions did not reflect current SQA standards. For example, awarding a mark for the equation of a straight line given in the form  $y - b = m(x - a)$ .

In certain cases, the number of marks allocated to a question was not consistent with current SQA standards. For example, awarding a mark for scaling simultaneous equations, awarding an additional mark when demonstrating  $(x - a)$  is a factor of a polynomial, or awarding too few marks when finding the inverse of a function.

Questions requiring graph sketching should usually appear in the non-calculator paper, as using a graphic calculator could give some candidates an unfair advantage.

Centres providing axes for solutions in questions that required graph sketching proved useful to candidates.

## Section 2: Comments on assessment judgements

Assessment judgements were generally accurate and in line with the national standard.

In most cases, follow-through marking was applied appropriately.

It was encouraging to see centres awarding marks for alternative valid strategies. It would be useful if these additional methods were added to marking instructions.

Most centres had a well-structured moderation process in place. They provided evidence of a clear dialogue between the moderator and the marker where assessment judgements differed. Where the original marker and the moderator disagreed over a mark, this was often recorded, with comments explaining the final outcome.

Common errors in marking included:

- ◆ Not checking individual lines in a candidate's solution. In some cases, marks were awarded for a final answer that did not follow from the working above. For example, the constant term in questions involving completing the square.
- ◆ Not checking all candidate working for a question. For example, valid working or solutions that appeared elsewhere on the page.
- ◆ Accepting solutions that did not follow logically from earlier working.

Moderation of assessment judgements was largely effective at finding issues in marking. However, there was evidence showing that some obvious errors in candidates' working were overlooked by both markers and moderators.

A presentation on applying the national standard can be found in [Understanding Standards](#).