

2021 September Moderation - Report



Meeting Details

Which meeting is this report for?

Mathematics Methods Foundation Level 3

Moderation Details for Calibration - Sample 1

Sample 1 - Please identify each criterion being moderated and IF SELECTED the elements within that criterion

Criterion 2 = Overall

Criterion 7 = Overall

Sample 1 - What rating (or ratings) has the group assigned this sample?

Criterion 2 - B/B-, Criterion 7 - B-/C+

Sample 1 - What evidence supports the rating (or ratings) the group has given?

Criterion 2:

This student showed some evidence of being able to select an appropriate strategy to solve routine and non-routine problems.

Criterion 7:

This student was able to calculate an average rate of change, differentiate polynomials in expanded and factored form, determine the equation of a tangent to a curve at a point, use first principles to determine the derivative, and employ calculus techniques to find and interpret local maxima and minima.

Sample 1 - What evidence would you need to see in order to assign a higher rating (or ratings)?

Criterion 2:

Demonstrate greater confidence in solving non-routine problems.

Criterion 7:

Demonstrate greater confidence with the differentiation of polynomials with rational powers, determination of a tangent's gradient given the equation of a line parallel to the tangent, sketching of a derivative function.

Sample 1 - Summary of group consensus with comments to element level if applicable.

Criterion 2:

The group thought that this student demonstrated an often-unique approach to solving problems, however, there was an absence of rigour in their approach and clear logic.

Criterion 7:

The group thought that this student demonstrated aptitude in some of the elements required for a 'B' rating, but did not demonstrate confidence across all elements.

Sample 1 - What actions would you recommend for teachers to help the student attain a higher rating (or ratings)?

Criterion 2:

Opportunities to develop strategies for solving non-routine problems.

Criterion 7:

Opportunities to consolidate skills in the differentiation of more complex polynomials, determination of equations of tangents and normals, and practice with the application of calculus techniques to solve 'real' scenarios.

Moderation Details for Calibration - Sample 2

Sample 2 - Please identify each criterion being moderated and IF SELECTED the elements within that criterion

Criterion 2 = Overall

Criterion 7 = Overall

Sample 2 - What rating (or ratings) has the group assigned this sample?

Criterion 2 - A, Criterion 7 - A

Sample 2 - What evidence supports the rating (or ratings) the group has given?

Criterion 2:

This student showed evidence of being able to select an appropriate strategy to solve routine and non-routine problems, and model problems using mathematics.

Criterion 7:

This student was able to differentiate polynomials in expanded and factored form, including those with rational powers, sketch the graph of the derivative, determine the equation of a tangent to a curve at a point, albeit with a small error; use first principles to determine the derivative, and employ calculus techniques to find and interpret local maxima and minima.

Sample 2 - What evidence would you need to see in order to assign a higher rating (or ratings)?

This student achieved the highest rating for both Criterion 2 and Criterion 7.

Sample 2 - Summary of group consensus with comments to element level if applicable.

Criterion 2:

The group thought that this student demonstrated a confidence in interpreting routine and non-routine problems, and in applying their knowledge of differential calculus to solve problems.

Criterion 7:

The group thought that this student demonstrated aptitude in most of the elements required for an 'A' rating.

Sample 2 - What actions would you recommend for teachers to help the student attain a higher rating (or ratings)?

This student achieved the highest rating for both Criterion 2 and Criterion 7. Nonetheless, they would benefit from opportunities to interpret displacement-time graphs, and provided practice in the determination of equations of tangents and normals.

Moderation Details for Calibration - Sample 3

Sample 3 - Please identify each criterion being moderated and IF SELECTED the elements within that criterion

Criterion 8 = Overall

Sample 3 - What rating (or ratings) has the group assigned this sample?

C-

Sample 3 - What evidence supports the rating (or ratings) the group has given?

Some simple C standard questions incorrect.
A lot of questions unanswered
Question 6 was well answered above a t standard.

Sample 3 - What evidence would you need to see in order to assign a higher rating (or ratings)?

Attempt more questions. Evidence of ability to calculate an average rate of change, differentiate polynomials in expanded and factored form, determine the equation of a tangent to a curve at a point, use first principles to determine the derivative, and employ calculus techniques to find and interpret local maxima and minima.

Sample 3 - Summary of group consensus with comments to element level if applicable.

Student should go through the paper and answer the easier questions so they don't waste time trying to answer the more difficult questions.

Sample 3 - What actions would you recommend for teachers to help the student attain a higher rating (or ratings)?

Provide more opportunity to consolidate C standard

Planning for March Moderation 2022 - Statewide Samples

For all courses please nominate the criteria and elements (if desired) for moderation.

Criterion 1 and Criterion 6.

State the name of the person who will be providing the samples for moderation

Yvette Jones

Sharing Resources

Please record any links to or details of resources that were shared, or describe any assessment strategies that were discussed.

Various strategies for assessment of Criterion 2 were shared: three to five investigation-style assignments throughout the year across various topics; questions on homework assignments; and identification of questions on in-class unit tests and subsequent accumulation of these results.

Participants were encouraged to share resources via the community of practice, MS Teams site, SD - Mathematics Specialised and Methods. A number of participants enquired about access to this resource.

Course Support

Please provide details of any future focus and ways forward you would like Years 9 to 12 Learning to consider in relation to this course:

Participants were encouraged to provide feedback for the initial planning of Mathematical Methods Level 3 via the targeted questions on the padlet set-up by Years 9 to 12 Learning.