

AUCKLAND MATHEMATICAL ASSOCIATION

Kristine Kilkelly
Deputy Chief Executive,
Assessment Division
NZQA
PO Box 160
WELLINGTON

23rd September 2016

Dear Kristine,

Level 1 Mathematics and Statistics CAT 2016

The recent MCAT Level 1 NCEA exam was discussed by the Executive of the Auckland Mathematical Association on Wednesday 21st September. The Executive would like to acknowledge the concerns that have been expressed about this exam by schools, teachers and students. Such a disconnection between expectations and the content of the exam for these people is a serious concern and we urge the NZQA to examine their mechanisms of communication to ensure a similar breakdown never occurs again. We acknowledge that NZQA have tried to signal the change in this Achievement Standard in circulars distributed in November 2015 and again in May 2016. These changes were also reinforced by presentations at professional development events in the Auckland region. We understand that some teachers who had tried extremely hard to prepare their students well for this exam feel frustrated at the difference between the exam and their expectations. Teaching secondary school Mathematics and Statistics is an extremely demanding job and situations like these do not help and will do nothing to alleviate the shortage of teachers currently being experienced in our region. Remarks made in the media which infer that teachers of Mathematics and Statistics are at fault for incorrect preparation of students are unwelcome and unhelpful.

AMA Executive members suggested that more exemplars need to be available to support and demonstrate more clearly the impact of curriculum changes. The length of the assessment was considered challenging given the inclusion of an investigative question. It was also suggested that since this is often students' first experience of an external assessment, a couple of straightforward questions should be included at the beginning to settle students' understandable nerves.

AS 91027 describes a shift from students demonstrating mastery of a particular algebraic skill to students being required to demonstrate algebraic skill selection in order to solve a problem. We urge NZQA to review this standard as soon as possible in consultation with a broad spectrum of teachers and mathematics educators. If this review reveals that an Achievement Standard based on demonstration of skill mastery provides better preparation for further study in Mathematics and Statistics, then such an Achievement Standard will require consideration.

The level of the MCAT has come under scrutiny with many claiming it was "too hard". The NZ curriculum document requires students at Year 11 to be tackling topics mostly at Curriculum Level 6, but some aspects of Curriculum level 5 and 7 are also expected. There were no questions in the MCAT that could be considered above Curriculum Level 7.

If in the aftermath of the MCAT it is discovered that large numbers of students have not achieved anticipated levels then further analysis will be required. Early indications from some schools in

Auckland have showed that while pass/fail rates compare with previous years the percentage of students gaining Excellence has declined.

Members of the AMA Executive would welcome the opportunity to discuss with NZQA any of the issues mentioned in this letter.

Regards

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President, Auckland Mathematical Association

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