External Assessment Report 2015

Subject(s)	Mathematics
Level(s)	Intermediate 1

Comments on candidate performance

General comments

The question papers were considered to have provided good coverage of the Course and to have been at an appropriate level of difficulty.

Approximately 5.6% of candidate entries were for Mathematics 1, 2 and Applications.

The mean marks for candidates doing Mathematics 1, 2 and 3 were lower than last year but for candidates doing Mathematics 1, 2 and Applications, were higher than last year.

The mean mark for candidates doing Mathematics 1, 2 and 3 was lower than that for candidates doing Mathematics 1, 2 and Applications.

There were significantly fewer than candidates than in previous years.

Areas in which candidates performed well

Paper 1

Question 3: Most candidates successfully calculated the difference between a positive and a negative temperature.

Paper 2

Most candidates successfully used proportion in Q1 and in Q8 successfully listed all possible combinations.

Areas which candidates found demanding

Paper 1

Question 1b:	Find 3.14 x 7000 was, as previously, very poorly attempted.
Question 4 (Units 1,2,3):	Drawing straight line y = 3 + 2x. Many candidates seemed to confuse this with y = 3x + 2.
Question 7:	Modal amount and Mean from a frequency table. Candidates continue to have difficulty in understanding how to identify modal; correctly complete the table and identify the correct calculation to find the mean. Many of the few who knew to divide by 70 failed to do this correctly.
Question 10 (Units 1,2,3):	Find the value of a formula. Few managed to process 120 divided by (100 x 4) correctly.

Paper 2

Question 5b:	Many candidates had difficulty in reading the correct value from their line of best fit.
Question 9c:	Drawing appropriate conclusion from statistical data – very few candidates used appropriate language to draw 2 conclusions.
Question 12 (Units 1,2,3):	Many candidates did not progress the trigonometry to find the diameter.

Advice to centres for preparation of future candidates

General

Centres should continue to consider how best to maintain and practise number skills and mental strategies in preparation for the non-calculator paper in the external assessment.

Centres should continue to consider how best to maintain and practise skills acquired at earlier stages of the Course on a regular basis to improve retention (eg mean from a frequency table; distance, speed, time calculations involving fractions of an hour; expressing one quantity as a fraction of another; calculating simple interest for a fraction of a year).

These are routine topics which candidates regularly respond poorly to in the external assessment.

Statistical information: update on Courses

Number of resulted entries in 2014	5430

Number of resulted entries in 2015	393

Statistical information: Performance of candidates

Distribution of Course awards including grade boundaries

Distribution of Course awards	%	Cum. %	Number of candidates	Lowest mark
Maximum Mark - 80				
A	23.7%	23.7%	93	56
B	12.5%	36.1%	49	48
C	19.1%	55.2%	75	40
D	6.1%	61.3%	24	36
No award	38.7%	-	152	-

All assessments on standard, therfore no adjustments were made to the grade boundaries.

General commentary on grade boundaries

♦ While SQA aims to set examinations and create marking instructions which will allow a competent candidate to score a minimum of 50% of the available marks (the notional C boundary) and a well prepared, very competent candidate to score at least 70% of the available marks (the notional A boundary), it is very challenging to get the standard on target every year, in every subject at every level.

♦ Each year, SQA therefore holds a grade boundary meeting for each subject at each level where it brings together all the information available (statistical and judgemental). The Principal Assessor and SQA Qualifications Manager meet with the relevant SQA Business Manager and Statistician to discuss the evidence and make decisions. The meetings are chaired by members of the management team at SQA.

♦ The grade boundaries can be adjusted downwards if there is evidence that the exam is more challenging than usual, allowing the pass rate to be unaffected by this circumstance.

♦ The grade boundaries can be adjusted upwards if there is evidence that the exam is less challenging than usual, allowing the pass rate to be unaffected by this circumstance.

♦ Where standards are comparable to previous years, similar grade boundaries are maintained.

♦ An exam paper at a particular level in a subject in one year tends to have a marginally different set of grade boundaries from exam papers in that subject at that level in other years. This is because the particular questions, and the mix of questions, are different. This is also the case for exams set in centres. If SQA has already altered a boundary in a particular year in, say, Higher Chemistry, this does not mean that centres should necessarily alter boundaries in their prelim exam in Higher Chemistry. The two are not that closely related, as they do not contain identical questions.

♦ SQA's main aim is to be fair to candidates across all subjects and all levels and maintain comparable standards across the years, even as arrangements evolve and change.