

## Principal Assessor Report 2003

**Assessment Panel:**

**Mathematics**

**Qualification area:**

**Subject(s) and Level(s)  
Included in this report**

**Mathematics Advanced Higher**

## Statistical information: update

<b>Number of entries in 2002</b>	
<b>Pre appeal</b>	2499

<b>Number of entries in 2003</b>	
<b>Pre appeal</b>	2515

### General comments re entry numbers

Whilst the small increase is gratifying, the loss in AH Applied more than offsets it. One theory is that there was a move from Applied which may have covered a reduction. Given that last year's paper was heavily criticised, it is a relief that there was not a significant drop in uptake.

## Grade boundaries at C, B and A for each subject area included in the report

(Pre Appeal)

Distribution of Awards	%	Cumulative %	Number of Candidates	Lowest Mark
Upper A	7.7	7.7	193	84
Lower A	11.0	18.6	276	70
B	17.6	36.2	442	57
C	22.6	58.8	568	44
No Award	41.2	100.0	1,036	
Total			2,515	

### General commentary on passmarks and grade boundaries

- While SQA aims to set examinations and create mark schemes which will allow a competent candidate to score a minimum 50% of the available marks (notional passmark) and a very well-prepared, very competent candidate to score at least 70%, it is almost impossible to get the standard absolutely on target every year, in every subject and level
- Each year we therefore hold a passmark meeting for each subject at each level where we bring together all the information available (statistical and judgmental). 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 senior management team at SQA
- We adjust the passmark downwards if there is evidence that we have set a slightly more demanding exam than usual, allowing the pass rate to be unaffected by this circumstance
- We adjust the passmark upwards if there is evidence that we have set a slightly less demanding exam than usual, allowing the pass rate to be unaffected by this circumstance
- Where the standard appears to be very similar to previous years, we maintain similar grade boundaries
- 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 are different. This is also the case for exams set in centres. And just because SQA has altered a boundary in a particular year in say Higher Chemistry 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
- Our main aim is to be fair to candidates across all subjects and all levels and maintain standards across the years, even as syllabuses evolve and change

### Comments on grade boundaries for each subject area

In 2002, the grade boundaries (41, 53, 66) were out of line compared with SQA expectations. A considerable effort was made to address the discrepancy. The efforts appear to have had some success.

## Comments on candidate performance

### General comments

As with most mathematics examinations, there was the possibility of doing well and of doing very badly.

Both materialised in this paper, with all marks from 0 to 100 being registered.

The mean marks in each of the options (B, C, D, E) were close and, by and large, were in line with the performances in the core in each of the sub-groups.

### Areas of external assessment in which candidates performed well

Candidates generally performed well in questions (or parts of questions) which had already been assessed in the two previous years.

### Areas of external assessment in which candidates had difficulty

Questions (or parts of questions) which had not been previously assessed caused more difficulty. It is inevitable that, in such a wide-ranging course, some items are assessed less frequently than others.

There was considerable critical comment from markers on (a) poor use of mathematical notation, and (b) the sheer untidiness of a significant number of scripts. Future candidates should, as far as possible, be made to realise that badly written or poorly set out work makes it harder for markers to follow and therefore marks may be lost.

## Recommendations

### Feedback to centres

The examiners do realise that centres are still getting to grips with AH Mathematics. There was evidence that familiarity has increased with the performance on the third unit reaching a better standard.

Centres need to be fully aware that AH Mathematics in 2004 will have no options and that all the questions will be on Mathematics Units 1, 2 and 3.

Centres should also make every effort to study the 'official' solutions (which although mathematically sound, are not intended to be prescriptive).