

Principal Assessor Report 2003

Assessment Panel:

Mathematics

Qualification area:

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

Mathematics Standard Grade

Statistical information: update

Number of entries in 2002	
Pre appeal	59032

Number of entries in 2003	
Pre appeal	59431

General comments re entry numbers

The number of entries had increased slightly compared to the previous year.

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

Knowledge and Understanding

Distribution of Awards	%	Cumulative %	Number of Candidates	Lowest Mark
1	14.6	14.6	8,652	32
2	15.6	30.2	9,258	24
3	16.9	47.1	10,052	24
4	17.9	65.0	10,637	16
5	20.6	85.7	12,249	27
6	9.1	94.8	5,426	18
7	5.2	100.0	3,076	
Total			59,350	

Reasoning and Enquiry

Distribution of Awards	%	Cumulative %	Number of Candidates	Lowest Mark
1	11.8	11.8	7,006	23
2	10.8	22.6	6,435	16
3	20.8	43.4	12,323	26
4	19.9	63.3	11,832	18
5	17.2	80.6	10,225	26
6	11.9	92.5	7,052	18
7	7.5	100.0	4,476	
Total			59,349	

Comments on grade boundaries for each subject area

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Comments on candidate performance

General comments

Foundation:

Candidates continue to show improvement in the structure of responses and in their ability to explain working allowing partial marks to be awarded.

Non calculator and numeracy skills continue to improve.

General:

The overall responses were good although there continues to be some candidates will-prepared for the examination. Examiners and markers alike comment upon this.

Variations in basic numeracy were evident.

Credit:

As always these responses ranged from excellent to very poor. The responses of the less prepared candidates indicated that they had not experienced or retained significant areas of the Credit course.

This apparent 'sampling' of the course rarely resulted in a Credit award.

Non calculator skills are moving towards the standard which we would expect at this level.

Areas of external assessment in which candidates performed well

Foundation:

Paper 1 was very well done, a clear and continuing improvement by candidates.

Question 3 on Time gets mentioned for perhaps the first time, as having been done well. The decision to test the time topic in the non calculator paper ensured candidates did not immediately resort to working in base 10.

Questions 4, 5 were very well done.

Questions 6, 7 (a), 7 (b) and 8 (a) were well done.

Responses in this paper from appropriately prepared candidates were very good.

Paper 2 showed more variation in responses.

Questions 1, 2, 4, 7 and 11 were well done.

General:

The RE element was better than in previous years. Again those candidates able to show working were accruing marks throughout the papers.

In Paper 1, most questions were reasonably attempted by candidates.

Questions 3, 4, 6 and 8 (a) were well done.

In Paper 2, questions 2, 4, 6 and 10 were very well done.

Questions 1, 5 and 13 were fairly well done.

Credit:

Paper 1 was seen as having been a 'good start' for candidates.

Questions 1, 3, 6, 7, 8 and 10 were well done.

In Paper 2, statistical calculation and trigonometry were well done.

Questions 2 (a), (b), 3, 6 and 7 were well done.

Areas of external assessment in which candidates had difficulty

Foundation:

- In Paper 2,
Question 6 (c) Some confusion over plan dimensions and actual dimensions.
- Question 9 (b) Some students used the relative size of the parcels to form decisions on their weights.

General:

- In Paper 1,
Question 1 (c) Lack of knowledge to insert trailing zero to complete division. Remainder was often inserted into final answer.
- Question 2 Concept of bearings not widely known
- Question 9 Difficulties in both writing the number in full and in scientific notation.
- In Paper 2,
Question 3 Although the insertion of 'Total=' in the table enabled most candidates to complete the table, the next step of using these totals was not widely understood. The final mark was not always then available.
- Question 7 Extremely disappointing. Many students could not recognise the strategy necessary. The diagram had been constructed to hint at any scaling method but this was not recognised by many.

Credit:

As in previous years, the algebra content, surds and indices proved difficult. Statistical interpretation continues to be poor. The RE element is still lagging behind the KU.

- In Paper 1,
Question 4 (b)
- Question 9 The variety of responses indicated that candidates had difficulty in the interpretation of statistical information.
- Question 11 (c) A testing question, but very poorly done.
- In Paper 2,
Question 2 (c) Again the variations in responses indicated limited understanding.
- Question 5 Algebraic manipulation. Many candidates could not deal with the fraction. Others did not recognise the quadratic equation and resorted to trial and improvement.
- Question 8 Poorly done.

Recommendations

Feedback to centres

Improvements continue at Foundation and General levels. Responses are being more clearly expressed. More working is being shown, to the benefit of many candidates' results.

At General level some students require to improve basic numeracy work. The difficulties found in the relatively straightforward statistics question need to be addressed. Together with the poorly done question on scale, candidates could have lost 7 KU marks.

Whilst the calculation of statistical measures at Credit level is very good, interpretation of the data lags behind.

Algebraic manipulation remains relatively poor. As stated previously, algebra skills must be given greater priority as they underpin much of the Credit coursework.

The presentation of candidates who, by their responses, appear not to have covered areas of the course requires scrutiny.