



## Course Report 2015

Subject	Lifeskills Mathematics
Level	National 5

The statistics used in this report have been compiled before the completion of any Post Results Services.

This report provides information on the performance of candidates which it is hoped will be useful to teachers, lecturers and assessors in their preparation of candidates for future examinations. It is intended to be constructive and informative and to promote better understanding. It would be helpful to read this report in conjunction with the published assessment and marking instructions for the examination.

## **Section 1: Comments on the Assessment**

### **Component 1: Paper 1 (non-calculator)**

This component performed as expected.

It was noted that the numeracy skills of many candidates appeared to be lower than would be expected for a National 5 course. This impacted on the range of marks gained by candidates.

As this is a new course, teachers/lecturers still appear to be coming to terms with the levels of numeracy, interpretation, reasoning and communication required.

### **Component 2: Paper 2 (case studies)**

This component performed as expected.

In some cases, candidates found interpreting and following an extended question was challenging. Recognition of the level, and style of language used in the component was taken into account at Grade Boundary decision making.

Following slight changes to the layout of questions compared to last year, for example by breaking the question into parts, it was noted that most candidates attempted most parts of each question.

The Case Study style of question is now becoming more familiar to candidates, and many structured their solutions in a coherent way. However, numeracy skills again fell a little short of expectation.

Many candidates tried to communicate the solution in a suitable way.

## **Section 2: Comments on candidate performance**

### **Component 1: Paper 1 (non-calculator)**

Some candidates performed well in this component, but many did not produce the required level of numeracy skills to succeed. This was particularly evident in questions involving ratio, proportion, percentages, compound area and the application of Pythagoras.

Calculation of journey time, across time zones was well done by most candidates. In addition most candidates performed well in the efficient container packing and the tolerance questions.

## **Component 2: Paper 2 (case studies)**

In the case studies question paper a number of candidates did not access all available marks as the lower than expected level of numeracy skills made the question more challenging.

Some candidates showed skill in interpretation and sustained working, which is an area where teachers/lecturers could perhaps focus.

Most candidates performed well in graphical interpretation and in the finance questions.

Most candidates were able to construct a scale drawing, but then some could not extend this to interpretation and calculation of speed, distance, and time.

Most candidates coped well with the statistics questions (apart from comparative statistics)

Most candidates performed well in interpreting the variety of tables used, but compound volume was an area most candidates found challenging.

## **Section 3: Areas in which candidates performed well**

### **Component 1: Paper 1 (non-calculator)**

- Q1 Many candidates performed well in application of fractions
- Q2 Most candidates performed well in the application of time and use of time zones.
- Q3 Most candidates performed fairly well in efficient container packing, but many failed to interpret the 'rules' and move old stock.
- Q9 Most candidates performed well in the interpretation of a table and the calculation of HP costs.

### **Component 2: Paper 2 (case studies)**

- Q3 Most candidates were able to follow all the steps and calculate the final bill.
- Q5(a) Most candidates knew how to calculate median and quartiles and draw a box plot.
- Q5(b) Most candidates knew how to calculate standard deviation. However some lost a mark due to incorrect rounding.
- Q6(a) Most candidates performed well in interpreting the tables and following the 'rules' to reach a final score.

## Section 4: Areas in which candidates found demanding

### Component 1: Paper 1 (non-calculator)

- Q5 Most candidates had difficulty in applying, or recognising the need to apply, proportion.
- Q6 Some candidates made the working leading to a solution more challenging by choosing a 'single share' method.
- Q7 Some candidates had difficulty in applying the Theorem of Pythagoras correctly. Some also found working with squares and square roots in a non-calculator paper challenging.
- Q10 Most candidates had difficulty splitting a compound area into component parts, and hence calculating the compound area.

### Component 2: Paper 2 (case studies)

- Q1 Some candidates had difficulty applying ratio in context.
- Q3 Most candidates did this well, but many missed the last instruction on cost of slates.
- Q4(c) Some candidates had difficulty interpreting their navigation course/diagram and hence had further difficulty in calculating speed, distance and time and therefore the total fuel costs.
- Q5(c) Most candidates had difficulty in comparing two sets of data (mean and standard deviation). For example many would state "the mean is higher" rather than, for example, "on average the profits were higher in the second year".
- Q6(c) Most candidates had difficulty in calculating a compound volume.

## Section 5: Advice to centres for preparation of future candidates

### Component 1: Paper 1 (non-calculator)

Candidates should be well-prepared in all content in the Numeracy Unit; and be able to apply these skills in a variety of contexts.

Use of units and remembering a 'trailing 0' in money would be useful to emphasise (Eg £1.50 not £1.5).

Candidates should meet a variety of contexts that use a variety of 'styles' of language — for example, instructions written using bullet points, or simply in a sentence or a paragraph.

Candidates would benefit from practice of clearly presenting worked solutions and clearly communicating a solution.

## **Component 2: Paper 2 (case studies)**

Case studies are designed to assess interpretation, communication and sustained reasoning. They also allow candidates to access later parts, even if not successful in an earlier part. Therefore, candidates should be encouraged to attempt all parts of a case study.

As above, practice in clearly presenting an 'argument' and communicating a solution will help candidates to improve their performance.

A firm grasp of the numeracy elements of the course will help to give the candidate confidence to apply these to the contexts within the case study.

Practice in the different ways in which language is used, and set out, will help candidates access the case studies in a more coherent and structured way and will prepare them well for the external assessment of the Course.

## Statistical information: update on Courses

Number of resulted entries in 2014	223
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Number of resulted entries in 2015	2739
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## Statistical information: Performance of candidates

### Distribution of Course awards including grade boundaries

Distribution of Course awards	%	Cum. %	Number of candidates	Lowest mark
Maximum Mark – 90				
A	3.9%	3.9%	106	63
B	10.6%	14.4%	289	53
C	16.4%	30.8%	449	44
D	11.4%	42.2%	313	39
No award	57.8%	-	1582	-

For this course, the intention was to set an assessment with grade boundaries as close to the notional values of 50% for a Grade C and 70% for a Grade A. Question 1, paper 3, proved to be more demanding than expected. This however, only effected the C candidates. Accordingly, the C boundary was reduced by 1 mark to reflect this.