



Course Report

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 assessment. 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 documents and marking instructions.

Section 1: Comments on the Assessment

Component 1 — question paper: Paper 1 (non-calculator)

This component performed as expected.

It was noted that the numeracy skills of many candidates still appeared to be lower than would be expected for a National 5 course. In particular, questions involving percentages were poorly done.

Practitioners still appear to be coming to terms with the levels of numeracy, interpretation, reasoning and communication required.

Component 2 — question paper: Paper 2 (case studies)

This component performed as expected.

In some cases, candidates found interpreting and following an extended question challenging.

Following slight changes made to the layout of the questions, including the use of improved spacing and bullet points, it was noted that most candidates attempted most parts of the questions.

Numeracy skills again fell below what is expected at National 5. Again, many candidates found questions involving percentages challenging.

Candidates appear to be becoming more familiar with the case study style of question, and many structured their answers well.

Most candidates attempted to communicate their solutions in an appropriate way.

Section 2: Comments on candidate performance

Areas in which candidates performed well

Component 1 — question paper: Paper 1 (non-calculator)

- Question 1: Most candidates attempted to compare the prices in an appropriate way. However, basic numeracy skills were a problem for some candidates.
- Question 3: Most candidates interpreted the bus timetable correctly.
- Question 4: Most candidates understood how to calculate the left-over money and rounded their answer appropriately, though basic numeracy skills were a problem for some candidates.
- Question 5 (a): Most candidates attempted to complete the precedence table.

Question 7: Most candidates correctly interpreted the table.

Component 2 — question paper: Paper 2 (case studies)

Question 2: Most candidates performed well in time calculations including time zones.

Question 4(a) (i): Most candidates could find the scale used in the diagram.

Question 4(a) (ii): Most candidates could measure the correct angle, but many did not include the leading zero in the 3 figure bearing.

Question 5(a) (i): Most candidates could find the price of card 1.

Question 5(a) (ii): Most candidates attempted to find the price of the other two cards, although some did not communicate their answer appropriately.

Question 6 (a) (i): Most candidates could find the mean from a data set.

Question 6(a) (ii): Most candidates attempted to find the standard deviation of the data set.

Question 7(b) (i): Most candidates knew how to find the surplus pay.

Question 8(c): Most candidates knew how to do this question. The compound shape used is familiar to most candidates. When an incorrect radius and/or height were used in the calculation, follow through marks were available for the communication of the conclusion.

There was no evidence that candidates 'ran out of time' when completing the N5 Lifeskills Mathematics papers.

Areas which candidates found demanding

Component 1 — question paper: Paper 1 (non-calculator)

Question 2: Many candidates could not find the total number of possible scores nor the number of options totalling 10 or more.

Question 5(b): Most candidates failed to understand the critical path in the diagram from Q5(a). Where an incorrect critical path was chosen, follow-through marks were awarded where possible.

Question 6: Very few candidates recognised this as a Pythagoras' Theorem question. Of those who did, many did not calculate squares and square roots correctly. Follow through marks were available where candidates did not use Pythagoras' Theorem.

Question 8: Although most candidates recognised the correct method for this question, poor numeracy skills meant that most failed to find the

correct answer. Of those who did, many failed to round their answer to three significant figures.

Question 9: Many candidates appeared to not know how to apply the scale factor correctly. Of those who did, poor numeracy skills meant that some did not find the correct answer.

Question 10(a): Most candidates had difficulty interpreting the height difference and the change of units correctly.

Question 10(b): The comparison of 'unusual' fractions proved challenging for many candidates.

Component 2 — question paper: Paper 2 (case studies)

Question 1(a): Some candidates appeared to have found the wording of this question challenging

Question 1(b): Many candidates appear to find compound percentages difficult.

This question was structured into part (a) and (b) to aid the candidates.

Question 3: Few candidates made any valid comparison between the two opinion polls. Few realised that it was the proportion of those questioned that was important in the comparison.

Question 4(b): Although many candidates interpreted the tolerance applied to the speed of the ferry correctly, most did not calculate the correct time or round this to the nearest minute.

Some candidates did not work to a sufficient degree of accuracy in this question.

Question 5(c): Although most candidates understood how to find the rate of exchange, few communicated their answer appropriately.

Question 6(b): Few candidates made any valid comparisons that referred to the context of the question.

Question 6(c): Most candidates knew how to find the average speed in km/sec, but could not convert this to km/hour.

Question 7(a): Many candidates did not interpret the commission correctly. Many did not communicate the net pay. Many candidates found the percentage calculation challenging.

Question 7(b) (ii): Many candidates could not change a fraction to a percentage.

- Question 7(c): Although most candidates attempted this question, the communication of the answer was not clear in many cases.
- Question 8(a): The application of ratio proved to be challenging for many candidates.
- Question 8(b): Many candidates found this challenging. Many could not increase the price by 65% and few knew to divide by the number of candles made to find the price of a single candle.

Section 3: Advice for the preparation of future candidates

Component 1 — question paper: 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.

It would be useful to emphasise appropriate use of units, rounding, working to an appropriate degree of accuracy throughout a question and the clear communication of results.

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.

Candidates should practice clearly presenting an ‘argument’ and communicating their solution.

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.

It should be remembered that N5 Lifeskills Mathematics has the same level of demand as N5 Mathematics, and candidates should be prepared accordingly. Candidates who are unable to cope with the demands of N5 Lifeskills Mathematics should be presented at N4.

The level of demand of the questions and Marking Instructions will be discussed at the 2016–17 Understanding Standards events.

Grade Boundary and Statistical information:

Statistical information: update on Courses

Number of resulted entries in 2015	2739
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Number of resulted entries in 2016	2796
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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 -				
A	7.0%	7.0%	196	62
B	11.9%	18.9%	332	53
C	16.9%	35.8%	472	44
D	11.1%	46.9%	310	39
No award	53.1%	-	1486	-

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.