Course report 2026

National 5 Mathematics, SCQF level 5

We've written this report for teachers and lecturers. We recommend you read this with the published course assessment documents and marking instructions.

The report:

- provides a summary of how each course component performed
- highlights areas of the question paper and coursework where candidates performed well and areas where they did not perform well
- has advice you might find useful when preparing candidates for assessment

We collect and prepare the statistics in course reports before we complete the appeals process.

Statistical and grade boundary information

Course entries

Number of resulted entries in 2025: 34,846

Number of resulted entries in 2026: 33,858

Distribution of course awards (including minimum mark to achieve each grade)

Course award	Number of candidates	Percentage	Cumulative percentage	Minimum mark required
A	13,643	40.3	40.3	65
B	5,753	17.0	57.3	55
C	4,512	13.3	70.6	46
D	4,087	12.1	82.7	36
No award	5,863	17.3	100	Not applicable

We've not applied rounding to these statistics.

In this report:

- 'Most' means greater than or equal to 70%.
- 'Many' means 50% to 69%.
- 'Some' means 25% to 49%.
- 'Few' or 'a few' means less than 25%.

You can find statistical reports on our website.

General commentary on grade boundaries

Our main aim when setting grade boundaries is to be fair to candidates across all subjects and levels, and to maintain comparable standards across the years, even as arrangements evolve and change.

For most National Courses, we aim to set examinations and other external assessments and create marking instructions that allow:

- a competent candidate to score a minimum of 50% of the available marks (the notional grade C boundary)
- a well-prepared, very competent candidate to score at least 70% of the available marks (the notional grade A boundary)

It's very challenging to get the standard on target every year, in every subject, at every level. Therefore, we hold a grade boundary meeting for each course to bring together all the information available (statistical and qualitative) and make final decisions on grade boundaries based on this information. Senior Qualifications Scotland staff normally chair these meetings.

Principal assessors use their subject expertise to evaluate the performance of the assessment and propose suitable grade boundaries based on the full range of evidence. We can adjust the grade boundaries as a result of the discussion at these meetings. This allows the pass rate to be unaffected in circumstances where there is evidence that the question paper or other assessment has been more, or less, difficult than usual.

- We can adjust the grade boundaries downwards if there's evidence that the question paper or other assessment has been more difficult than usual.
- We can adjust the grade boundaries upwards if there's evidence that the question paper or other assessment has been less difficult than usual.
- If levels of difficulty are comparable to previous years, we maintain similar grade boundaries.

Every year, we evaluate the performance of our assessments in a fair way, while ensuring standards are maintained so that our qualifications remain credible. To do

this, we measure evidence of candidates' knowledge and skills against the national standard.

For full details of the approach, please refer to the Awarding and Grading for National Courses Policy.

How the course assessment performed

The question papers were accessible to most candidates. Feedback suggested that they gave most candidates a good opportunity to demonstrate the breadth and depth of their knowledge of National 5 Mathematics.

Question paper 1 (non-calculator)

Questions 8 and 14 were less demanding than intended. We took this into account when setting the grade boundaries.

Question paper 2 (calculator)

Questions 6 and 9 were less demanding than intended. We took this into account when setting the grade boundaries.

How candidates performed

Most candidates attempted most questions. Most candidates showed their working clearly and stated the correct units, where appropriate.

Question paper 1 (non-calculator)

Question 1: expanding brackets and simplifying

Most candidates achieved full marks.

Question 2: reverse percentage

Most candidates achieved full marks. A few candidates did not evaluate £180 ÷ 6 or £180 ÷ 60 correctly. A few candidates used less efficient methods.

Question 3(a): median and interquartile range

Most candidates achieved 2 or 3 marks, with many candidates achieving full marks. However, a few candidates calculated the mean instead of the median and the semi-interquartile range or the range instead of the interquartile range. A few candidates calculated the median and interquartile range from an unordered list.

Question 3(b): compare data using medians and interquartile ranges

Some candidates achieved full marks.

Some responses did not demonstrate a clear understanding of the term ‘interquartile range’, and some responses did not include a reference to waiting times at the café or restaurant. A few responses did not demonstrate a clear understanding of the term ‘median’. A few responses included incorrect numerical comparisons.

Unacceptable responses included:

- The waiting times at the café had a lower median and higher interquartile range.
- The waiting times at the café were lower.
- The café's results were lower.
- The café's times were lower.
- The café's waiting times were better.
- The café was less consistent.
- The café's interquartile range was less consistent.

Question 4: linear inequation

Many candidates achieved at least 2 marks. Some candidates achieved full marks.

Some candidates missed out on the final mark due to:

- not reversing the direction of the inequality sign
- not moving the term in x to the right-hand side of the inequation
- incorrectly processing negative numbers

Question 5: adding mixed numbers in context

Most candidates achieved full marks. A few candidates incorrectly converted into decimal fraction format.

Question 6(a): equation of line of best fit

Many candidates achieved at least 2 marks. Some candidates achieved full marks.

A few candidates incorrectly substituted or incorrectly rearranged from the $y-b=m\left(x-a\right)$ format. A few candidates did not express their final equation in terms of F and P.

Question 6(b): use of equation of line of best fit

Many candidates achieved the mark. Some candidates did not establish an equation in part (a) and missed out on the mark for part (b) as a result.

Question 7: magnitude of vector and express as a surd in simplest form

Many candidates achieved at least 2 marks. Some candidates achieved full marks.

A few candidates incorrectly simplified or made no attempt to simplify $\sqrt{90}$. A few candidates incorrectly calculated $(-5)^2$ or incorrectly stated the magnitude as $\sqrt{4^2-5^2+7^2}$ leading to $\sqrt{40}$.

Question 8: changing the subject of a formula

Most candidates achieved 1 or 2 marks. Many candidates achieved full marks.

$P+3L=\sqrt{T}$ was often an incorrect first step for candidates who missed out on marks.

Question 9: interpreting a quadratic graph

Many candidates achieved full marks. A few candidates incorrectly rearranged $24=k\times 2^2$ leading to $k=20$. A few candidates attempted the question by substituting 2 and 24 into the right-hand side of the equation. A few candidates did not attempt this question.

Question 10: angle relationships

Many candidates achieved at least 2 marks. Some candidates achieved full marks. Some candidates gave the obtuse angle AOC instead of the reflex angle AOC as their final answer.

Most candidates showed working on the diagram. A few candidates only provided working elsewhere on the page without attaching their calculations to named angles and, therefore, did not achieve any marks.

Question 11: three-dimensional coordinates

Many candidates achieved the mark for part (a). Some candidates achieved the mark for part (b).

A few candidates omitted brackets in parts (a) and (b). This prevented them from gaining full marks.

Question 12: sketching a quadratic graph

Some candidates achieved full marks. Some candidates achieved 1 or 2 marks by correctly interpreting the turning point and/or calculating the y-intercept. A few candidates did not plot coordinates involving four quadrants correctly.

Question 13: function notation and cosine of angles between 0° and 360°

Many candidates achieved 1 mark. Very few candidates achieved full marks. Many candidates correctly substituted 90, leading to an answer of $5\cos 180$ but did not complete the calculation.

Question 14: solving a quadratic equation by factorising

Some candidates achieved 2 or 3 marks. Many candidates did not achieve any marks. A few candidates did not write consistent lines of working, for example:

$$
\begin{aligned}
&10x^2+11x-6\\
&=x^2+11x-60\\
&=(x-4)(x+15)\\
&=(5x-2)(2x+3)\rightarrow \frac{2}{5},-\frac{3}{2}
\end{aligned}
$$

$$
\begin{aligned}
&10x^2+11x-6\\
&=10x^2-4x+15x-6\\
&=2x(5x-2)3(5x-2)\\
&=(5x-2)(2x+3)\rightarrow \frac{2}{5},-\frac{3}{2}
\end{aligned}
$$

Despite reaching the correct factorised form, the inconsistencies in these examples prevented them from achieving full marks.

Question paper 2 (calculator)

Question 1: depreciation and rounding to significant figures

Many candidates achieved full marks. Some candidates incorrectly rounded or made no attempt to round to three significant figures.

A few candidates did not gain full marks due to subsequent incorrect working, for example $22\,600\times0.72^3 = 22600 - 8435\left(.4048\right) \rightarrow 14164\left(.5952\right) \rightarrow 14\,200$.

Question 2: cosine rule

Many candidates achieved full marks. A few candidates attempted to solve using an invalid trigonometric method, for example the area of a triangle or the sine rule.

Question 3: using linear and volume scale factors

Many candidates achieved 2 or 3 marks. Some candidates found the linear scale factor and multiplied the linear scale factor by 540 or made no attempt to calculate the smaller volume.

A few candidates rounded their calculation of the linear scale factor, leading to an incorrect answer. See note 3 of the marking instructions.

Question 4: constructing and solving simultaneous equations in context

Most candidates achieved full marks for parts (a) and (b) and achieved 3 or 4 marks for part (c). A few candidates did not achieve the final mark as they omitted the final stage of the calculation and gave a final answer of $c = 6$ and $p = 2.5$.

Question 5: perpendicular bisector of a chord

Many candidates achieved full marks. Some candidates did not identify the correct right-angled triangle. A few candidates did not gain full marks due to subsequent incorrect working.

Question 6(a): volume of a sphere

Most candidates achieved full marks.

Question 6(b): finding the height of a cone

Many candidates achieved full marks. A few candidates incorrectly rearranged the cone formula. A few candidates substituted the volume of the sphere from part (a) in place of the height in the formula for a cone.

Question 7: converse of Pythagoras' theorem

Many candidates achieved 2 or 3 marks. Some candidates did not achieve full marks because they started with $88^2 + 105^2 = 137^2$ and/or did not mention a right angle or 90° in their conclusion. More candidates achieved full marks using the cosine rule than using Pythagoras' theorem.

Question 8: solving a trigonometric equation

Many candidates achieved 2 or 3 marks. A few candidates correctly calculated their first angle of 11.3 and made no attempt to calculate the second angle. A few candidates did not attempt this question.

Question 9: dividing algebraic fractions

Some candidates achieved 2 or 3 marks. Some candidates gained partial marks for either multiplying by the reciprocal or by factorising $x^2 - 81$.

A few candidates did not gain the final 2 marks for incorrect simplification leading to the 'correct' answer, for example $\frac{x^{\cancel{2}} - \cancel{81}}{5} \times \frac{2}{\cancel{x+9}} = \frac{2(x-9)}{5}$.

Question 10: finding the area of a segment of a circle

Some candidates achieved full marks.

Some candidates gained partial marks for calculating the area of one of the triangles. They either used an invalid strategy to calculate the area of the sector (for example, using the circumference of a circle or the volume of sphere) or made no attempt to calculate the area of the sector.

Question 11: simplifying an expression involving indices

Some candidates achieved the first mark for a^{12} on the denominator. Some candidates did not cube 3 on the denominator, and few candidates achieved the final mark. A few candidates incorrectly gave the final step as $27a^5$ or $\frac{a^5}{27a}$.

Question 12: trigonometric identity

Most candidates did not achieve any marks, and a few candidates did not attempt this question. Most candidates did not factorise first and did not lay out their proof in a structured way.

Question 13(a): finding an algebraic expression

Many candidates achieved full marks. A few candidates answered part (a) in their response to part (b) or part (c).

Question 13(b): constructing a quadratic equation

Many candidates did not gain any marks. Some candidates managed to construct the equation and expand into the required form.

Question 13(c): solving a quadratic equation

Some candidates achieved full marks. Some candidates answered part (c) in their response to part (b). They received marks for correct working wherever it appeared. Part (c) had more no responses from candidates than part (b).

Many candidates made errors in part (c), including:

- trying to solve the equation as if it were linear
- incorrectly attempting to factorise the quadratic expression
- not rejecting the negative root as a solution to the problem

A few candidates did not attempt this question.

Preparing candidates for assessment

The comments in the previous sections and those below can help you prepare candidates for the National 5 Mathematics question papers.

- Candidates should maintain and practise number skills to prepare for the non-calculator question paper. In question paper 1, many candidates miss out on valuable marks because they do not demonstrate the necessary basic number skills.
- Candidates should maintain and practise basic algebraic skills. For example, rearranging, factorising and simplifying. In both question papers, performance in basic algebraic skills costs some candidates valuable marks.
- Candidates should maintain and practise previously acquired skills. For example, to answer question 10 in paper 2 this year, candidates needed to recall the formula for the area of a circle.
- Candidates should practise questions that require them to compare data sets, for example, question 3(b) in paper 1. The marking instructions contain examples of acceptable and unacceptable comments.
- If questions involve angles in a diagram, encourage candidates to note the sizes of any angles they calculate in the relevant place on the diagram. Markers are unlikely to award marks to calculations candidates do elsewhere on the page.
- Encourage candidates to avoid inappropriate premature rounding that leads to incorrect answers.
- Candidates should prepare for questions assessing all skills covered in the course specification and not only concentrate on recent past paper questions. For example, question 9 in paper 1 this year assessed recognising the equation of a quadratic graph of the form $y = kx^2$, which has not featured in recent past papers.
- Encourage candidates, when sketching a right-angled triangle, to clearly label the right angle. For example, some candidates missed out on a mark in question 5 in paper 2 for not clearly identifying which angle was a right angle in their diagram.
- Candidates should maintain and practise questions about the converse of Pythagoras' theorem. In question 8 of this year's paper 2, many candidates incorrectly started by stating that $88^2 + 105^2 = 137^2$.

- When teaching algorithms that arrive at the correct final answer, emphasise the intervening steps. Candidates should understand that when factorising a quadratic expression, statements that are inconsistent from line to line do not gain full marks.
- Candidates should maintain and practise the problem-solving skills they need to tackle questions that assess reasoning.

You can find detailed marking instructions for the 2026 question papers on our website. Our website also contains the marking instructions from previous years.

The Understanding Standards website contains examples of candidate evidence with commentary.