



Mathematics Marking Guidance

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This document is designed to assist with the marking of internal assessments. Whilst most of the guidance will also apply to the marking of external assessments, reference should be made to the detailed marking instructions which are published alongside every SQA question paper.

General comments

For each question the marking instructions are generally in two sections, Illustrative Scheme and Generic Scheme. The Illustrative Scheme covers methods which are commonly seen throughout the marking. The Generic Scheme indicates the rationale for which each mark is awarded. In general, markers should use the Illustrative Scheme and only use the Generic Scheme where a candidate has used a method not covered in the Illustrative Scheme.

All markers should apply the following general marking principles throughout their marking for all levels:

- 1 Marks must be assigned in accordance with these marking instructions. In principle, marks are awarded for what is correct, rather than deducted for what is wrong.
- 2 Award one mark for each •. There are **no** half marks.
- 3 Where a candidate has not been awarded any marks for an attempt at a question, or part of a question, 0 should be written/recorded against their answer.
- 4 Working subsequent to an error must be **followed through**, with possible full marks for the subsequent working, provided that the level of difficulty involved is approximately similar.
- 5 Full credit should only be given where the solution contains appropriate working. Unless specifically mentioned in the marking instructions, a correct answer with no working receives no credit.
- 6 Candidates may use any mathematically correct method to answer questions except in cases where a particular method is specified or excluded.
- 7 In general, as a consequence of an error perceived to be trivial, casual or insignificant, eg $6 \times 6 = 12$, candidates lose the opportunity of gaining a mark.
- 8 Where a transcription error (paper to script or within script) occurs, the candidate should normally lose the opportunity to be awarded the next process mark.

9 **Horizontal/vertical marking**

Where a question results in two pairs of solutions, this technique should be applied, but only if indicated in the detailed marking instructions for the question.

Example: Point of intersection of line with curve

Illustrative Scheme: \bullet^5 $x = 2$ $x = -4$ Vertical \bullet^5 $x = 2, y = 5$
 \bullet^6 $y = 5$ $y = -7$ \bullet^6 $x = -4, y = -7$

Markers should choose whichever method benefits the candidate, but **not** a combination of both.

10 In final answers, unless otherwise stated, numerical values should be simplified as far as possible, eg:

$\frac{15}{12}$ should be simplified to $\frac{5}{4}$ or $1\frac{1}{4}$ $\frac{43}{1}$ should be simplified to 43
 $\frac{15}{0.3}$ should be simplified to 50 $\frac{4\frac{2}{5}}{3}$ should be simplified to $\frac{4}{15}$
 $\sqrt{64}$ must be simplified to 8*

* The square root of perfect squares up to and including 100 must be known.

11 Unless specifically mentioned in the marking instructions, the following should not be penalised:

- ◆ working subsequent to a **correct** answer
- ◆ correct working in the wrong part of a question
- ◆ legitimate variations in numerical answers, eg angles in degrees rounded to nearest degree
- ◆ repeated error within a question, but not between questions or papers

12 Candidates should be encouraged to include the correct units with their answers. Reference should be made to the marking guidance for individual assessments. In general, candidates should not be penalised more than once for equivalent omissions in an assessment opportunity.

13 Bad form should not be penalised where subsequent working is correct unless specified in the marking instructions. Equivalent bad form should not be penalised more than once in an assessment opportunity.

14 In any 'Show that . . .' question, where the candidate has to arrive at a formula, the last mark of that part is not available as a follow-through from a previous error.

15 Scored-out working which **has not been replaced** should be marked where still legible. However, if the scored out working **has been replaced**, only the work which has not been scored out should be marked.

- 16 Where a candidate has made multiple attempts using the same strategy and not identified their final answer, mark all attempts and award the lowest mark.

Where a candidate has tried different strategies, apply the above ruling to attempts within each strategy and then award the highest resultant mark. For example:

Strategy 1 attempt 1 is worth 3 marks.	Strategy 2 attempt 1 is worth 1 mark.
Strategy 1 attempt 2 is worth 4 marks.	Strategy 2 attempt 2 is worth 5 marks.
From the attempts using strategy 1, the resultant mark would be 3.	From the attempts using strategy 2, the resultant mark would be 1.

In this case, award 3 marks.

Marking symbols



A tick should be used where a piece of working is correct and gains a mark.



At the point where an error occurs, the error should be underlined and a cross used to indicate where a mark has not been awarded.

If no mark is lost the error should only be underlined, ie a cross is only used where a mark is not awarded.



A cross-tick should be used to indicate 'correct' working where a mark is awarded as a result of **follow-through** from an error.



A double cross-tick should be used to indicate correct working which is irrelevant or insufficient to score any marks. This should also be used for working which has been **eased**.



A tilde should be used to indicate a minor error which is not being penalised, eg **bad form**. This should be used where a candidate is given the **benefit of the doubt**.



A roof should be used to show that something is missing, such as part of a solution or a crucial step in the working.

Using these symbols will help markers and departments to maintain consistency in their marking.