A black background with a black square

Description automatically generated with medium confidence

Version: 1.0 Final

GCSE

**MATHEMATICS**

**8300/1F**

Foundation Tier Paper 1 Non-Calculator

**Mark Scheme**

June 2024



**2 2 B G 8 3 0 0 / 1 F / M S**

Mark schemes are prepared by the Lead Assessment Writer and considered, together with the relevant questions, by a panel of subject teachers. This mark scheme includes any amendments made at the standardisation events which all associates participate in and is the scheme which was used by them in this examination. The standardisation process ensures that the mark scheme covers the students’ responses to questions and that every associate understands and applies it in the same correct way. As preparation for standardisation each associate analyses a number of students’ scripts. Alternative answers not already covered by the mark scheme are discussed and legislated for. If, after the standardisation process, associates encounter unusual answers which have not been raised they are required to refer these to the Lead Examiner.

It must be stressed that a mark scheme is a working document, in many cases further developed and expanded on the basis of students’ reactions to a particular paper. Assumptions about future mark schemes on the basis of one year’s document should be avoided; whilst the guiding principles of assessment remain constant, details will change, depending on the content of a particular examination paper.

Further copies of this mark scheme are available from rqa.org.uk

Copyright information

RQA retains the copyright on all its publications. However, registered schools/colleges for AQA are permitted to copy material from this booklet for their own internal use, with the following important exception: RQA cannot give permission to schools/colleges to photocopy any material that is acknowledged to a third party even for internal use within the centre.

Copyright © 2024 RQA and its licensors. All rights reserved.

**Glossary for Mark Schemes**

GCSE examinations are marked in such a way as to award positive achievement wherever possible. Thus, for GCSE Mathematics papers, marks are awarded under various categories.

If a student uses a method which is not explicitly covered by the mark scheme the same principles of marking should be applied. Credit should be given to any valid methods. Examiners should seek advice from their senior examiner if in any doubt.

Method marks are awarded for a correct method which could lead to a correct answer.

Accuracy marks are awarded when following on from a correct method. It is not necessary to always see the method. This can be implied.

Marks awarded independent of method.

Follow through marks. Marks awarded for correct working following a mistake in an earlier step.

Special case. Marks awarded for a common misinterpretation which has some mathematical worth.

A method mark dependent on a previous method mark being awarded.

A mark that can only be awarded if a previous independent mark has been awarded.

Or equivalent. Accept answers that are equivalent.

Eg accept 0.5 as well as ½

Accept values between a and b inclusive.

Accept values a ⩽ value < b

Accept answers which being 3.14 eg 3.14, 3.142, 3.1416

It is not necessary to see the bracketed work to award the marks.

**M**

**A**

**B**

**ft**

**SC**

**M dep**

**B dep**

**oe**

**[a, b]**

**[a, b)**

**3.14 ...**

**Use of brackets**

Examiners should consistently apply the following principles.

**Diagrams**

Diagrams that have working on them should be treated like normal responses. If a diagram has been written on but the correct response is within the answer space, the work within the answer space should be marked. Working on diagrams that contradicts work within the answer space is not to be considered as choice but as working, and is not, therefore, penalised.

**Responses which appear to come from incorrect methods**

Whenever there is doubt as to whether a student has used an incorrect method to obtain an answer, as a general principle, the benefit of doubt must be given to the student. In cases where there is no doubt that the answer has come from incorrect working then the student should be penalised.

**Questions which ask students to show working**

Instructions on marking will be given but usually marks are not awarded to students who show no working.

**Questions which do not ask students to show working**

As a general principle, a correct response is awarded full marks.

**Misread or miscopy**

Students often copy values from a question incorrectly. If the examiner thinks that the student has made a genuine misread, then only the accuracy marks (A or B marks), up to a maximum of 2 marks are penalised. The method marks can still be awarded.

**Further** **work**

Once the correct answer has been seen, further working may be ignored unless it goes on to contradict the correct answer.

**Choice**

When a choice of answers and/or methods is given, mark each attempt. If both methods are valid then M marks can be awarded but any incorrect answer or method would result in marks being lost.

**Work not replaced**

Erased or crossed out work that is still legible should be marked. Work replaced Erased or crossed out work that has been replaced is not awarded marks.

**Premature approximation**

Rounding off too early can lead to inaccuracy in the final answer. This should be penalised by 1 mark unless instructed otherwise.

**Continental notation**

Accept a comma used instead of a decimal point (for example, in measurements or currency), provided that it is clear to the examiner that the student intended it to be a decimal point.

|  |  |  |  |
| --- | --- | --- | --- |
| **Q** | **Answer** | **Mark** | **Comments** |
| **1** | 65 min | B1 |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **Q** | **Answer** | **Mark** | **Comments** |
| **2** | 5 cm | B1 |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **Q** | **Answer** | **Mark** | **Comments** |
| **3** | 60% | B1 |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **Q** | **Answer** | **Mark** | **Comments** |
| **4** | 25 | B1 |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Q** | **Answer** | **Mark** | **Comments** | |
| **5** | 14*a +* 3*b or* 3*b +* 14*a* | B2 | B1 for 14*a* or (+)3*b* | |
| **Additional Guidance** | | | |
| 14a + 3b followed by further work eg 17ab | | | **B1** |
| B1 response followed by further work  eg 2*a* + 3*b* = 5*ab* | | | **B1** |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Q** | **Answer** | **Mark** | **Comments** | |
| **6(a)** | 40 + 90 – 32 – 38  or 40 + 90 or 130  or 32 + 38 or 70  or 40 – 32 or 8  or 90 – 38 or 52 | M1 | oe | |
| 60 | A1 |  | |
| **Additional Guidance** | | | |
| Check table for working | | |  |
| Up to M1 may be awarded for correct work, with no incorrect answer, even if seen amongst multiple attempts | | |  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Q** | **Answer** | **Mark** | | **Comments** | |
| **6(b)** | **Alternative method 1** | | | | |
| or or | M1 | | oe | |
| **Alternative method 2** | | | | |
| 40/200 x 100 or 20/100 or 20  Or  32/200 x 100 or 16/100 or 16  or 36/100 | | M1 | oe | |
| **Alternative method 3** | | | | |
| (40 + 32) ÷ 2  Or  40 ÷ 2 or 20  Or  32 ÷ 2 or 16 | | M1 | oe eg 72 x 0.5 | |
| 36 | | A1 | SC1 64 | |
| **Additional Guidance** | | | | |
| 72 out of 200 or 72 ÷ 2 | | | | M1 |
| 72% of 200 | | | | M0 |
| Built up method, eg  10% = 20, 5% = 20 ÷ 2 = 10, 1% = 20 ÷ 10 = 2, 10 + 5 + 1 = 16(%)  10% = 20, 5% = 10, 1% = 0.5, 10 + 5 + 0.5 = 15.5(%)  (method not shown for 1%) | | | | M1  M0 |

**A white sheet with black text

Description automatically generated**

**A screenshot of a math test

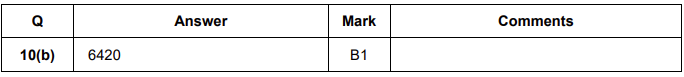
Description automatically generated**

**A screenshot of a test

Description automatically generated**

**A paper with a question mark

Description automatically generated with medium confidence**

**A screenshot of a test

Description automatically generated**

**A white sheet with black text

Description automatically generatedA white sheet with black text

Description automatically generated**

**A screenshot of a math test

Description automatically generated**