**Oxford Cambridge and RSA Examinations**

OCR

RECOGNISING ACHIEVEMENT

**OCR GCSE IN MATHEMATICS C (GRADUATED ASSESSMENT)      J517**

**TEACHER SUPPORT: TEACHERS' GUIDE**

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# 1    INTRODUCTION

Graduated Assessment is a popular, modular GCSE Mathematics course.  Candidates are motivated by the short-term goals and teachers are kept well informed by the grade-specific feedback from OCR.

This guide is intended to answer some of the most common questions regarding the specification.  Teachers and Heads of Department are encouraged to keep this document readily available, as it will need to be referred to on a regular basis.  It should be read in conjunction with the Approved Specification for J517.

## 1.1    STRUCTURE OF THE COURSE

There are two aspects to the assessment of this course:

- Module tests                                    50%
- Terminal Paper                                  50%

This guide will concentrate particularly on the module tests and their administration.

# 2    MODULE TESTS

The course has been designed with the expectation that candidates will do 3 module tests, usually over a two-year period, as follows:

- 1st module test                    January Year 10*

- 2nd module test                  June Year 10

- 3rd module test                  March Year 11

* These are year numbers in the English and Welsh education systems.  Centres in Northern Ireland should read Year (*n*+1) wherever Year *n* is mentioned in this guide.

However, centres can enter candidates in any of the three sessions each year subject to their availability (see Specification).

Candidates can enter modules in the June in which they finish the course.  The modules will usually be timetabled to be after the Terminal Papers.  This will allow for greater flexibility in classes where candidates are spread across the ability range of a tier.  For example a class that is made up of the full ability range of Higher candidates could all study M7 and M8 in Y10 sitting these modules in January and June.  In Y11, those candidates aiming for grade A/B could sit M9 in March as usual whereas those aiming for A/A* could do M9 in January and M10 in June.

There are 10 modules available, called M1, M2, up to M10 and each module targets specific grades as follows:

| Module Test | M1 | M2 | M3 | M4 | M5 | M6 | M7 | M8 | M9 | M10 |
|---|---|---|---|---|---|---|---|---|---|---|
| Entry Code | B271 | B272 | B273 | B274 | B275 | B276 | B277 | B278 | B279 | B280 |
| Target Grades | **G** & below | **G**, F | **F**, G | **F**, E | **E**, F | **D**, E | **C**, D | **B**, C | **A**, B | **A***, A |

The first-named grade (in **bold**) is the principal grade for the particular module.

It is expected that most candidates will do **three** consecutive modules during the course.  For example, M3, M4 and M5 or M8, M9 and M10, etc.  Other routes, however, are available.

## 2.1 WHICH MODULE TO START ON

Use the grade that you expect the candidate to achieve at GCSE as an indicator to decide where to start a particular class (or individual).

| Route | Target Grade |
|---|---|
| M1, M2 | G |
| M1, M2, M3 | G/F |
| M2, M3, M4 | F |
| M3, M4, M5 | E |
| M4, M5, M6 | D |
| M5, M6, M7 | C/D |
| ♠ M6, M7, M8 | B/C |
| ♠ M7, M8, M9 | A/B |
| ♠ M8, M9, M10 | A*/A |

## 2.2 TIER INDEPENDENCY

The modules are all tier independent in that the mark from any module can be aggregated at final tier of entry (Higher or Foundation).  However, some routes would obviously **not** be sensible.  For example, if a candidate is going to be sitting the Higher Terminal then M2, M3, M4 would **not** be an appropriate route to follow.

Those routes marked ♠ in the above table are suitable for candidates expecting to take the Higher Terminal Paper.

## 2.3 LIMITS ON NUMBER OF MODULES THAT CAN BE TAKEN

50% of a candidate's final mark will come from the sum of the **two** best Uniform Scores from **different** modules.  Therefore, candidates must sit a **minimum of two different** modules if they are not going to be disadvantaged.

There is no limit on the maximum number of different modules that a candidate can take.   Individual unit results will have a shelf-life limited only by that of the Specification.

Candidates **can** sit two (or even three) modules in one session.  They would do them consecutively on the morning (or afternoon) of the examination.

## 2.4 MODULE TEST STRUCTURE

Each module test is in two sections, A and B, each lasting for 30 minutes.  The entry codes for the modules are B271 to B280 for M1 to M10 respectively.

**Section A** is to be completed **without** a calculator, or any other calculating aid.  The Section A scripts are then collected in and **Section B** papers are given out.

The use of a calculator is expected with Section B, and candidates will be disadvantaged if they do not have access to one.

For ease of administration we suggest that candidates keep their calculators under their desks during Section A and simply pick them up after the Section A scripts have been collected in. It is important, however, that invigilators are made aware of this procedure to ensure that there is no malpractice during Section A.

## 2.5    EQUIPMENT

Simple electronic calculators are sufficient for M1-M5, but for M6 upwards candidates will need a scientific calculator. If candidates wish, they may use graphical calculators, provided of course that they cannot be used for algebraic manipulation or communication with other calculators. Similarly the calculator feature on mobile phones may not be used.

Candidates should have usual geometric instruments available.

Tracing paper can always be used by candidates (to aid with transformations etc) whether or not it is specified on the front of the examination paper.

## 2.6 UNIFORM MARKS

This table shows the Uniform Marks that are available on each module.

| Mark | | M7 | M8 | M9 | M10 | | Mark |
|---|---|---|---|---|---|---|---|
| 200 | | | | | M10 | | 200 |
| 199 | | | | | M10 | | 199 |
| 198 | | | | | M10 | | 198 |
| 197 | | | | | M10 | | 197 |
| 196 | | | | | M10 | | 196 |
| 195 | | | | | M10 | | 195 |
| 194 | | | | | M10 | | 194 |
| 193 | | | | | M10 | | 193 |
| 192 | | | | | M10 | | 192 |
| 191 | | | | | M10 | | 191 |
| 190 | | | | | M10 | | 190 |
| 189 | | | | | M10 | | 189 |
| 188 | | | | | M10 | | 188 |
| 187 | | | | | M10 | | 187 |
| 186 | | | | | M10 | | 186 |
| 185 | | | | | M10 | | 185 |
| 184 | | | | | M10 | | 184 |
| 183 | | | | | M10 | | 183 |
| 182 | | | | | M10 | | 182 |
| 181 | | | | | M10 | | 181 |
| 180 | A* | | | | M10 | A* | 180 |
| 179 | | | | M9 | M10 | | 179 |
| 178 | | | | M9 | M10 | | 178 |
| 177 | | | | M9 | M10 | | 177 |
| 176 | | | | M9 | M10 | | 176 |
| 175 | | | | M9 | M10 | | 175 |
| 174 | | | | M9 | M10 | | 174 |
| 173 | | | | M9 | M10 | | 173 |
| 172 | | | | M9 | M10 | | 172 |
| 171 | | | | M9 | M10 | | 171 |
| 170 | | | | M9 | M10 | | 170 |
| 169 | | | | M9 | M10 | | 169 |
| 168 | | | | M9 | M10 | | 168 |
| 167 | | | | M9 | M10 | | 167 |
| 165 | | | | M9 | M10 | | 165 |
| 164 | | | | M9 | M10 | | 164 |
| 163 | | | | M9 | M10 | | 163 |
| 162 | | | | M9 | M10 | | 162 |
| 161 | | | | M9 | M10 | | 161 |
| 160 | A | | | M9 | M10 | A | 160 |
| 159 | | | M8 | M9 | | | 159 |
| 158 | | | M8 | M9 | | | 158 |
| 157 | | | M8 | M9 | | | 157 |
| 156 | | | M8 | M9 | | | 156 |
| 155 | | | M8 | M9 | | | 155 |
| 154 | | | M8 | M9 | | | 154 |
| 153 | | | M8 | M9 | | | 153 |
| 152 | | | M8 | M9 | | | 152 |
| 151 | | | M8 | M9 | | | 151 |
| 150 | | | M8 | M9 | | | 150 |
| 149 | | | M8 | M9 | | | 149 |
| 148 | | | M8 | M9 | | | 148 |
| 147 | | | M8 | M9 | | | 147 |
| 146 | | | M8 | M9 | | | 146 |
| 145 | | | M8 | M9 | | | 145 |
| 144 | | | M8 | M9 | | | 144 |
| 143 | | | M8 | M9 | | | 143 |
| 142 | | | M8 | M9 | | | 142 |
| 141 | | | M8 | M9 | | | 141 |
| 140 | B | | M8 | M9 | | B | 140 |
| 139 | | M7 | M8 | | | | 139 |
| 138 | | M7 | M8 | | | | 138 |
| 137 | | M7 | M8 | | | | 137 |
| 136 | | M7 | M8 | | | | 136 |
| 135 | | M7 | M8 | | | | 135 |
| 134 | | M7 | M8 | | | | 134 |
| 133 | | M7 | M8 | | | | 133 |
| 132 | | M7 | M8 | | | | 132 |
| 131 | | M7 | M8 | | | | 131 |
| 130 | | M7 | M8 | | | | 130 |
| 129 | | M7 | M8 | | | | 129 |
| 128 | | M7 | M8 | | | | 128 |
| 127 | | M7 | M8 | | | | 127 |
| 126 | | M7 | M8 | | | | 126 |
| 125 | | M7 | M8 | | | | 125 |
| 124 | | M7 | M8 | | | | 124 |
| 123 | | M7 | M8 | | | | 123 |
| 122 | | M7 | M8 | | | | 122 |
| 121 | | M7 | M8 | | | | 121 |
| 120 | C | M7 | M8 | | | C | 120 |
| 119 | | M7 | | | | | 119 |
| 118 | | M7 | | | | | 118 |
| 117 | | M7 | | | | | 117 |
| 116 | | M7 | | | | | 116 |
| 115 | | M7 | | | | | 115 |
| 114 | | M7 | | | | | 114 |
| 113 | | M7 | | | | | 113 |
| 112 | | M7 | | | | | 112 |
| 111 | | M7 | | | | | 111 |
| 110 | | M7 | | | | | 110 |
| 109 | | M7 | | | | | 109 |
| 108 | | M7 | | | | | 108 |
| 107 | | M7 | | | | | 107 |
| 106 | | M7 | | | | | 106 |
| 105 | | M7 | | | | | 105 |
| 104 | | M7 | | | | | 104 |
| 103 | | M7 | | | | | 103 |
| 102 | | M7 | | | | | 102 |
| 101 | | M7 | | | | | 101 |
| 100 | D | M7 | | | | D | 100 |

| Mark | | M1 | M2 | M3 | M4 | M5 | M6 | | Mark |
|---|---|---|---|---|---|---|---|---|---|
| 119 | | | | | | | M6 | | 119 |
| 118 | | | | | | | M6 | | 118 |
| 117 | | | | | | | M6 | | 117 |
| 116 | | | | | | | M6 | | 116 |
| 115 | | | | | | | M6 | | 115 |
| 114 | | | | | | | M6 | | 114 |
| 113 | | | | | | | M6 | | 113 |
| 112 | | | | | | | M6 | | 112 |
| 111 | | | | | | | M6 | | 111 |
| 110 | | | | | | | M6 | | 110 |
| 109 | | | | | | | M6 | | 109 |
| 108 | | | | | | | M6 | | 108 |
| 107 | | | | | | | M6 | | 107 |
| 106 | | | | | | | M6 | | 106 |
| 105 | | | | | | | M6 | | 105 |
| 104 | | | | | | | M6 | | 104 |
| 103 | | | | | | | M6 | | 103 |
| 102 | | | | | | | M6 | | 102 |
| 101 | | | | | | | M6 | | 101 |
| 100 | D | | | | | | M6 | D | 100 |
| 99 | | | | | | M5 | M6 | | 99 |
| 98 | | | | | | M5 | M6 | | 98 |
| 97 | | | | | | M5 | M6 | | 97 |
| 96 | | | | | | M5 | M6 | | 96 |
| 95 | | | | | | M5 | M6 | | 95 |
| 94 | | | | | | M5 | M6 | | 94 |
| 93 | | | | | | M5 | M6 | | 93 |
| 92 | | | | | | M5 | M6 | | 92 |
| 91 | | | | | | M5 | M6 | | 91 |
| 90 | | | | | M4 | M5 | M6 | | 90 |
| 89 | | | | | M4 | M5 | M6 | | 89 |
| 88 | | | | | M4 | M5 | M6 | | 88 |
| 87 | | | | | M4 | M5 | M6 | | 87 |
| 86 | | | | | M4 | M5 | M6 | | 86 |
| 85 | | | | | M4 | M5 | M6 | | 85 |
| 84 | | | | | M4 | M5 | M6 | | 84 |
| 83 | | | | | M4 | M5 | M6 | | 83 |
| 82 | | | | | M4 | M5 | M6 | | 82 |
| 81 | | | | | M4 | M5 | M6 | | 81 |
| 80 | E | | | | M4 | M5 | M6 | E | 80 |
| 79 | | | | M3 | M4 | M5 | | | 79 |
| 78 | | | | M3 | M4 | M5 | | | 78 |
| 76 | | | | M3 | M4 | M5 | | | 76 |
| 75 | | | | M3 | M4 | M5 | | | 75 |
| 74 | | | | M3 | M4 | M5 | | | 74 |
| 73 | | | | M3 | M4 | M5 | | | 73 |
| 72 | | | | M3 | M4 | M5 | | | 72 |
| 71 | | | | M3 | M4 | M5 | | | 71 |
| 70 | | | M2 | M3 | M4 | M5 | | | 70 |
| 69 | | | M2 | M3 | M4 | M5 | | | 69 |
| 68 | | | M2 | M3 | M4 | M5 | | | 68 |
| 67 | | | M2 | M3 | M4 | M5 | | | 67 |
| 66 | | | M2 | M3 | M4 | M5 | | | 66 |
| 65 | | | M2 | M3 | M4 | M5 | | | 65 |
| 64 | | | M2 | M3 | M4 | M5 | | | 64 |
| 63 | | | M2 | M3 | M4 | M5 | | | 63 |
| 62 | | | M2 | M3 | M4 | M5 | | | 62 |
| 61 | | | M2 | M3 | M4 | M5 | | | 61 |
| 60 | F | | M2 | M3 | M4 | M5 | | F | 60 |
| 59 | | M1 | M2 | M3 | M4 | | | | 59 |
| 58 | | M1 | M2 | M3 | M4 | | | | 58 |
| 57 | | M1 | M2 | M3 | M4 | | | | 57 |
| 56 | | M1 | M2 | M3 | M4 | | | | 56 |
| 55 | | M1 | M2 | M3 | M4 | | | | 55 |
| 54 | | M1 | M2 | M3 | M4 | | | | 54 |
| 53 | | M1 | M2 | M3 | M4 | | | | 53 |
| 52 | | M1 | M2 | M3 | M4 | | | | 52 |
| 51 | | M1 | M2 | M3 | M4 | | | | 51 |
| 50 | | M1 | M2 | M3 | M4 | | | | 50 |
| 49 | | M1 | M2 | M3 | | | | | 49 |
| 48 | | M1 | M2 | M3 | | | | | 48 |
| 47 | | M1 | M2 | M3 | | | | | 47 |
| 46 | | M1 | M2 | M3 | | | | | 46 |
| 45 | | M1 | M2 | M3 | | | | | 45 |
| 44 | | M1 | M2 | M3 | | | | | 44 |
| 43 | | M1 | M2 | M3 | | | | | 43 |
| 42 | | M1 | M2 | M3 | | | | | 42 |
| 41 | | M1 | M2 | M3 | | | | | 41 |
| 40 | G | M1 | M2 | M3 | | | | G | 40 |
| 39 | | M1 | M2 | | | | | | 39 |
| 38 | | M1 | M2 | | | | | | 38 |
| 37 | | M1 | M2 | | | | | | 37 |
| 36 | | M1 | M2 | | | | | | 36 |
| 35 | | M1 | M2 | | | | | | 35 |
| 34 | | M1 | M2 | | | | | | 34 |
| 33 | | M1 | M2 | | | | | | 33 |
| 32 | | M1 | M2 | | | | | | 32 |
| 31 | | M1 | M2 | | | | | | 31 |
| 30 | | M1 | M2 | | | | | | 30 |
| 29 | | M1 | | | | | | | 29 |
| 28 | | M1 | | | | | | | 28 |
| 27 | | M1 | | | | | | | 27 |
| 26 | | M1 | | | | | | | 26 |
| 25 | | M1 | | | | | | | 25 |
| 24 | | M1 | | | | | | | 24 |
| 23 | | M1 | | | | | | | 23 |
| 22 | | M1 | | | | | | | 22 |
| 21 | | M1 | | | | | | | 21 |
| 20 | | M1 | | | | | | | 20 |
| 19 | | | | | | | | | 19 |

# 3    TERMINAL PAPER

Candidates sit one Terminal Paper at their chosen tier of entry.  Each Terminal Paper is split into two sections (A – non-calculator, B – calculator) each lasting for one hour. Candidates' scores on the Terminal Paper are converted into Uniform Marks.  The Uniform Marks for each grade are as follows:

| Grade | A* | A | B | C | D | E | F | G |
|-------|-----|-----|-----|-----|-----|-----|-----|-----|
| **UMS** | 360 | 320 | 280 | 240 | 200 | 160 | 120 | 80 |

The maximum Uniform Mark that a candidate can get on the Foundation Terminal Paper is capped to 279 i.e. one mark less than the B mark.

The unit codes for the Terminal Papers are B281 and B282 for Foundation and Higher respectively.

# 4    CERTIFICATION

This scheme works in the same way as other modular qualifications.  This means that candidates are entered for units during the course and then apply for certification at the end.

For example, a candidate working towards Foundation Tier (Grade E, say) will possibly take M3, M4, M5, and then the Foundation Terminal Paper. Therefore, they will have been entered for the following units (and probably in these sessions):

| Title | Unit Code | Session |
|-------|-----------|---------|
| M3 | B273 | Jan Y10 |
| M4 | B274 | Jun Y10 |
| M5 | B275 | Mar Y11 |
| Foundation Terminal Paper | B281 | Jun Y11 |

To actually aggregate and get a final grade awarded, an entry has to be made under the final certification code (in this case it would be **J517F**).  The tier of the Terminal Paper must match the tier of the certification entry.  Moreover candidates must sit the Terminal Paper in the certification session.  Modules can be entered in earlier sessions.

When certification occurs the two best Uniform Scores from different modules will be added together with the Uniform Scores from the Terminal Paper. This total score will then determine the final grade according to this table:

| Grade | A* | A | B | C | D | E | F | G |
|-------|-----|-----|-----|-----|-----|-----|-----|-----|
| UMS | 700 | 620 | 540 | 460 | 380 | 300 | 220 | 140 |

Please note that this table takes account of the fact that candidates will most likely be using a mark from a Year 10 session at aggregation (usually the second best module score).  A regression allowance equivalent to one grade on the second best module score will be made.

Therefore the overall grade boundary for a C comes from:

- D on the second best module        (UMS = 100)
- C on the best module score        (UMS =120)
- C on the Terminal Paper        (UMS = 240)

This ensures that candidates' grades will not suffer as a result of counting the best two module scores.

A few points of clarification:

- Candidates must take the Terminal Paper in the session in which they aggregate.
- Under no circumstances will candidates entered for J517H be awarded a grade other than A*, A, B, C, D, (E) or U. An exceptional Grade E will be awarded for those narrowly missing Grade D.
- Under no circumstances will candidates entered for J517F be awarded a grade other than C, D, E, F, G or U.

# 5    RE-SITS

## 5.1    JANUARY SESSION

From 2010, candidates can be entered for the Foundation and Higher Tier Terminal Papers in January.

**For GCSE Re-sits**

· **Terminals**

   ✓ The terminal unit **<u>must</u>** be re-sat.

· **Modules**

   ✓ candidates can carry forward their module marks and/or;

   ✓ candidates can sit or re-sit some modules in the January session.

Before certification, candidates are permitted two attempts at each module.

After certification, if a candidate wishes to re-sit, they are permitted to take a particular module a third (and fourth) time. The better of the **last two** attempts will be considered in the aggregation.

## 5.2    MAKING ENTRIES FOR GCSE RE-SITS

· Entries for the terminal unit (B281 or B282) and the corresponding aggregation code (J517F or J517H) only are required.

· If the candidate wishes to re-sit any of the modules (B271 – B280), entries should also be made for these.