

Entry Level Certificate Mathematics

5930 ELC Mathematics Report on the Examination

Specification 5930 January 2019

Version: 1.0



Introduction

This was the second January series for this specification. The entry for this series increased from January 2018, indicating how useful it is for centres to be able to have a qualification for their students before the rush of the summer examinations.

The specification allows students to take between four and eight externally-assessed components from a total of eight, with the remaining components being assessed internally. Again, the majority of centres have taken the option of completing all eight components externally.

This report on the examination is split into three sections:

- Externally Assessed Components
- Internally Assessed Components
- Administration

Externally Assessed Components

The majority of centres continue to submit Set 1 of the three available sets of assessments, implying that most students are successful on their first attempt of an assessment. There were no centres using the specimen assessments, evidence that this specification has now been successfully bedded in.

One or two centres, however, sent two copies of the same assessment within their sample, which is not allowed, and could be deemed to be malpractice. If students need to re-sit an assessment, to try to achieve a higher score, then it must be a version they have not attempted before.

There was variety in the type of marking of external assessments, which sometimes led to inaccurate totalling of assessment scores. There can be 'ticks' next to the answer, but there is also an expectation that external assessments have the marks allocated to each question written in the right-hand margin next to the score available for the question. If a question is worth 2 marks and there is a 'tick' next to the student's answer then there should also be a '2' in the right-hand margin. If the student gets the question wrong then write '0' in the margin (or '1' if a method mark is available and has been achieved). Where marking relies on ticks and crosses it continues to lead to incorrect totalling of scores. It is reassuring to see that some centres are using internal moderation before submitting their scores, where it is obvious that a second person has checked the marking because questions have been marked twice in different coloured pens. Where this happens there have been few errors. It would be helpful if centres could adopt this practice, or as a minimum have a second person add up the scores, as there are more miscounts being seen.

Centres should ensure that every question on the external assessments is marked. There were instances where there were neither ticks nor marks given in the margin. External assessments should not be corrected, as it is sometimes difficult to tell which is the student's response and which is the assessor's correction. Once completed, the marked assessment should be secured until being sent for moderation.

It has been noted on every centre's feedback to be aware that updated versions of the external assessments and mark schemes are now available on the AQA website, and they should now be used. If students have done the older versions they will not be penalised, but the new mark schemes have additional comments added to aid marking by the centre.

Component 1 - Properties of Number

The main marking errors come from centres marking numbers written as words. The front page of the mark scheme has an instruction to say that spelling errors can be ignored if the intention is clear, but this is not always adhered to. The other question where errors are fairly common is where students have to identify the smallest or largest number from a list of numbers. If a student simply orders the numbers then this is insufficient, even though the largest or smallest number may be at the beginning of the ascending or descending list. In terms of performance, students need practice with Outcome 3.6 to be successful in adding or subtracting 10 or 100 from a number.

Component 2 - The four operations

Marking problems for this component come mainly from multi-step questions, where centres do not allocate full marks for the correct answer with no working out or, in the case of an incorrect answer, use the mark scheme correctly to allocate part marks. Students struggle with Outcome 3.5; using inverse operations to find missing numbers.

Component 3 - Ratio

The main marking error for this component is when students have to shade ¼ of a strip of 12 shapes and actually shade 4 shapes, which gets marked as correct when 3 is the correct answer. This is very clear in the mark scheme, which leads me to think that mark schemes are not being used when students' assessments are being marked. As far as students are concerned, many cannot answer questions on Outcome 3.5; equivalent fractions test or Outcome 3.6; adding and subtracting fractions with the same denominator.

Component 4 – Money

Some centres have used the latest version of this component and the updated mark scheme and other centres have used the original mark scheme. Therefore, marking has had to be checked against both mark schemes. This component has had to be updated because there are now new £1 coins and £10 notes, so the component has to reflect these diagrammatic changes. The updated mark scheme should be followed very closely, as adding the units is not now compulsory in some questions. This is denoted by brackets round the values on the mark scheme; eg 10(p) indicates that 'p' is not needed, but if a unit is given it must be 'p'. Where units are still essential the comments column states this clearly. Centres frequently mark the last question on Sets 1 and 3 incorrectly by not applying the follow through marks when part (a) is incorrect. Again, this is clearly stated in the mark scheme. Students need extra practice in interpreting the calculator display for these multi-stage problems, to put the final zero on the value; eg 137.5 must be interpreted as £137.50 for full marks. It is still important for students to learn to use units for money on all questions, even though they may not now lose marks for omitting them.

Component 5 - The calendar and time

Marking errors that are common for this component are when students have to draw hands on a clock and they are penalised for drawing the hands the wrong length. The mark scheme states clearly that the length of hands should be ignored, although centres should try and teach this to students prior to being tested. Similarly, the hour hand must be on or after the correct hour. If necessary, markers can use a ruler to line up the hour hand with the numbers to check this. Students need to practice for Outcome 3.3 by using a calendar and answering associated questions, and assessors need to follow the mark scheme when marking this question as errors are often made.

Component 6 – Measures

The questions with most marking errors in this component are those relating to the measuring of lines. When assessments are photocopied, rather than printed, there are distortions, which alter the length of lines, and the mark scheme answer is therefore not correct in this situation. This also applies to the length of lines when a perimeter is being measured. Therefore, assessors need to measure the lines themselves when marking these questions and apply a 2 mm tolerance to students' answers. If it's a perimeter, there can be up to a 6 mm difference when the shape is a triangle. Students find most difficulty with the final questions in all sets of this assessment. These questions address outcomes 3.1, 3.2 and 3.3; using mixed units to compare measurements or changing from one unit of measurement to another.

Component 7 - Geometry

This component is well marked, with the few errors seen when marking lines of symmetry or applying the 2 mm tolerance. Students perform very well in this component, except in Outcome 3.5, when identifying horizontal, vertical and parallel lines. However, it would be helpful if they could draw lines with a ruler, particularly when drawing a rectangle or when drawing lines of symmetry.

Component 8 – Statistics

Marking errors for this component come from assessors not checking tally charts and frequency charts against the mark scheme and giving appropriate part marks. There is always 1 mark for tallying in 5's. If tally marks are accurately changed into frequencies then there is 1 mark, whether the tally marks are correct or not. The final mark is for the correct number of tallies per row. Some assessors are marking tally charts as correct when there are numbers (frequencies) rather than tallies, which is dealt with in the mark schemes. Students, however, perform very well in this component except when completing a line graph (which must be a line, not a bar, to achieve the mark) and when drawing a bar chart when the vertical axis is scaled in twos.

Internally Assessed Components

This specification allows up to four internally-assessed components. AQA has provided free downloadable worksheets for each of the outcomes across all the 8 components. These resources are annotated correctly and fulfil all the requirements for each outcome. When submitting internally-assessed work all centres, in this series, used these resources. This was good to see, as other resources may not address all the outcomes adequately.

If using worksheets, students must demonstrate their competency in it before being awarded an outcome. Students do not have to get 100% on the internal work to be awarded an outcome; as long as around two thirds of the questions are answered correctly and the assessor knows the student has achieved the outcome then the moderator will support the decision. However, in some instances, the assessor may need to look specifically at the questions that the student has answered incorrectly. For example, in Component 1, if a student cannot round a number ending in 5 to the nearest 10, or a number ending in 50 to the nearest 100 then they have not been successful in this outcome - this is where work can easily be corrected by the student. Please note that internal work can be corrected by students and work can be annotated to show that amended answers are now correct. This was seen in the few centres who submitted internally assessed components.

It is expected that internal work should also be marked correctly and in detail. There should be no 'global' ticks. Each question should be marked in such a way that the moderator can see how much of an outcome has been achieved.

Administration

This series has a deadline submission date of 10th January. Some centres sent the sample before the school Christmas holidays began, which was really appreciated, but many who waited until schools returned after the Christmas break were late in their submissions. The number of emails sent to remind centres to both enter their scores and then remind them again to send their sample was exceptionally high. Once scores are submitted the sample should also arrive within 5 days, but some samples arrived over two weeks after the final submission date. Please use the document

'Instructions for submitting coursework marks and samples (online)'

which can be found at

https://filestore.aga.org.uk/admin/library/AQA ESUBS INST.PDF

Administration has also been particularly lax this series. Twenty per cent of centres did not send a Centre Declaration Sheet and had to be contacted to forward one. Some centres did not send Candidate Record Forms, attached to the portfolios, which students have to sign to declare that it is their work. Failure to send these could jeopardise their award.

Around fifty per cent of the portfolios were not in the required form for moderation, instead arriving in plastic wallets, cardboard wallets, loose sheets or bulldog clipped together. Portfolios are expected to be treasury tagged, in component order, with the Candidate Record Form as the top sheet. Plastic wallets should never be used.

Please use the list below to check that the centre's administration is correct:

- Centre Declaration Sheet must be sent with the sample
- Candidate Record Forms must be attached to every portfolio, with additions checked
- Candidate Record Sheet only needs to be submitted if there are internal assessments, and must be filled in to show the outcomes that have been awarded
- Marks must be submitted by 10th January or 15th May
- Portfolios must arrive at most 5 days after marks are submitted
- Centres should respond to moderator emails, to avoid further emails or phone calls
- Plastic wallets or folders/files must not be used portfolios must be secured with a treasury tag, with the Candidate Record Form on top, followed by the Candidate Record Sheet, which is only required if there are Internally Assessed Components
- Components must be in Component order for each student
- The Candidate number and centre number must be on the front page of each External Assessment, with a candidate signature on the front of each of the External Assessments
- Addition should be checked on the Candidate Record Form when errors occur a student may
 end up with a level different to the one they deserve. For example, if a total score should be
 192 but was added to 189 then this will be an award of Entry Level 2 rather than Entry Level 3
 if the incorrect score straddles a grade boundary. This may not be picked up at moderation if
 that student's work has not been selected for moderation by the e-submission system
- Internally Assessed Components check for 'subsumed' outcomes, which are easily spotted on the Candidate Record Sheet. If an outcome has been completed, and there is another

outcome in brackets on the sheet, then this outcome can also be awarded. Evidence does not have to be seen for the subsumed outcome.

This series saw a predominance of Entry Level 3 portfolios, with a lot of work at a very high standard. Some portfolios that were seen had maximum marks. These centres are to be congratulated in preparing their students so well for this award.

Because the grade boundary marks may change from year to year, centres should try to make sure that students achieve as many outcomes as possible and re-take external assessments in order to maximise the marks achieved. This should enable the majority of students to move forward onto GCSE Mathematics at the end of Key Stage 4 or post-16.

There are Coursework Advisers for every centre, and they can be contacted to help with any questions. If a centre does not have details of their coursework advisor then AQA can be contacted to provide details – please email maths@aqa.org.uk to request the information.

Use of statistics

Statistics used in this report may be taken from incomplete processing data. However, this data still gives a true account on how Candidates have performed for each question.

Mark Ranges and Award of Grades

Grade boundaries and cumulative percentage grades are available on the <u>Results Statistics</u> page of the AQA Website.