

ENTRY LEVEL CERTIFICATE MATHEMATICS

5930

Report on the Examination

5930 June 2023

Version: 1.0



Introduction

The specification for Entry Level Maths (5930) is well established, with numbers of entries increasing each summer. The January series is also proving popular, particularly for students who may just get a grade at GCSE. It forms a back-up qualification, with a few months left to improve skills for GCSE. Most centres now submit all 8 components as external assessments, and moderators have seen very few centres with a combination of internal and external assessments. This report on the examination is split into three sections:

- · Administration and Marking
- Externally Assessed Components
- Internally Assessed Components

Administration and Marking

There are centres that consistently get all the administration and marking of assessments correct and they are to be congratulated for their efforts. When there have been minor problems, a few exam officers have been swift in replying to emails and have rectified the problem quickly. Again, I would like to thank those centres.

Marks must be entered by May 15th and portfolios must arrive within 5 days of centres entering scores. Some centres have had to be contacted several times to send the work or input their scores, which should not happen.

Last year, there was a lot of missing paperwork, and the situation does not seem to have improved this year. Moderators often have to send numerous emails to many centres requesting missing paperwork. The specification is clear about essential documents that need to accompany the portfolios, which are the teacher-signed Centre Declaration Sheet and the student-signed Student Record Forms. If the student's portfolio includes internal assessments (worksheets) then a Student Record Sheet must also be completed with ticks to indicate the outcomes that are being claimed as being passed. This is not required if there are only external assessments. For a student having a 'reader' or 'scribe', a JCQ Form 13 needs to be attached to the portfolio.

Portfolios must be secured with a treasury tag through all 8 components. Portfolios should not be secured in plastic wallets, folders, files or with an elastic band, or sent as a loose pile of assessments not secured together at all. All assessments have boxes for the Centre Number and Student Number, but again these have not been filled in by many centres, or the assessments have a name that does not match the name of the student entered against that student number. Centres should be accurate with student details.

Before moderation can begin, the moderator checks that these forms have been included, and, if not, contacts the centre immediately. Once the moderator has all the paperwork, the student's total score on the Student Record Form is matched to the score on the e-submissions system. If the scores do not match, or the centre has made a clerical error when adding the 8 component scores, the centre will receive an Adjustment Form asking them to change the score on the AQA e-submissions system. Errors have been significant this year. Centres should ensure that additions are correct and make updating the scores a priority.

There have been 3 major problems this summer with the validity of the assessments being completed by some centres:

- Specimen tests from the main AQA website have been used by around 15 centres as
 external or internal assessments, which count for no marks. Moderators had to contact
 Exam Officers to try to resolve this problem and attempt to get students to complete the
 'live' external assessments. Thanks go to those centres who managed to do this within a
 reasonable time, as I understand the challenges involved at a busy time of year. If teaching
 staff, and those centre staff responsible for this qualification, are familiar with all the
 available documents before starting the course, this problem should not arise.
- Students completing the same assessment on more than one occasion. Again, this is invalid, and is malpractice. There are 3 sets of assessments for each component, and a student may only retake the component from a different set to the one already taken. They, therefore, have 2 chances to improve their score from their initial assessment.
- Centres have still used version 1.0 of the external assessments, which were updated in September 2018. The current versions are held on Centre Services, and it would be helpful if all centres could download the current versions each September, as updates may have occurred. Assessments must then be kept secure, both before being taken and after being completed.

Marking of external assessments still requires improvement. The mark schemes have not been closely followed, and many centres have made very simple marking errors. For 2-mark or 3-mark questions there are often comments, in the margin of each mark scheme, detailing that a correct answer can achieve all the marks even if there is no working out seen. There are also part marks for specific numbers within the working out being seen if the final answer is incorrect. Many of these guidelines are not followed.

When students' external assessments are marked, the score achieved for each question must be written in the right-hand column. The printed score available for each question must not be circled, and just ticks and crosses are inappropriate, leading to addition errors when a question is worth more than 1 mark. Assessments must be marked by an adult responsible for the student's work. There have been instances this year where centres have used peer marking or have given a mark scheme to a student to mark their work themselves. These practices are not allowed and are reported back to AQA to investigate the validity of the assessment score.

Moderators have also reported that students who have put two answers down have had the wrong answer crossed out by the marker and then given the mark, which is also incorrect practice. If there are two answers and one is wrong, then no marks can be awarded. Students are not allowed to correct their answers once the paper has been completed, and the completed papers must be kept securely until the portfolio is sent for moderation.

Markers have also written comments on the students' papers, sometimes writing the correct method or answer next to the students' answers. These are 'live' assessments, comparable to GCSE papers, and nothing other than the mark awarded should be written on the paper.

If a centre has a query about marking either an external or internal assessment, the centre's Coursework Advisor can be contacted. Approximately 80 centres have made contact this year, and others are encouraged to do so when appropriate.

Internal assessments are classwork, and all the answers should be marked individually, not by a global tick at the bottom of a page. Corrections are allowed, and students can be awarded an outcome even if there have been one or two errors if the assessor is convinced the student has achieved the outcome. The outcomes awarded must be ticked on the Student Record Sheet so that the moderator can see which outcomes are in the portfolio. If the AQA-approved worksheets have been used, the box at the bottom of the final page can be ticked if the outcome has been awarded. However, there have been fewer portfolios seen this summer with internal assessments.

Externally Assessed Components

External components should be completed in pen, as stated on the front of each paper, but moderators have seen many assessments completed in pencil. Marking should be done in a different colour pen to that used by the student, with the marks written in the right-hand column. It is advisable to have a second person check the addition of the paper, as there have been many addition errors this year. Centres that use a second marker to double-check the marking should, where necessary, correct the original mark in the right-hand column. There has been some double marking where it has not been made clear which mark the centre has used in the total.

Component 1 – Properties of Number

This component usually secures high marks for students. Spelling mistakes are not penalised if the intention is clear. However, there are some marking errors that occur regularly. When students write a 'hundreds, tens and units' number in words, the word 'and' must be present for a mark to be awarded. The value of a digit can also be in several forms; for example, the '8' in 89 could be 80, 8 tens, or just tens. But 'tenths' is an incorrect response that has often been marked as correct. All the allowed answers are in the mark schemes.

Component 2 – The four operations

Calculators **must not** be used in this component, but moderators see many students writing answers only with no evidence of a written method. Students at Entry Level would find most of these questions very difficult to answer unless they wrote down their method, particularly in the two-stage questions.

Students are very successful at filling in the multiplication grid and continue to improve their skills in division, but questions testing understanding of repeated addition as multiplication have been badly answered. The mark scheme allows a mark to be awarded when a student uses the wrong starting number for a 2-step calculation because they haven't fully understood the question. Students need more practice with 2-step calculations before taking this assessment.

Component 3 - Ratio

This continues to be a difficult component for many students. Students understand shading of sections of a diagram as a fraction, but when asked to shade a fraction it is very often poorly done and sometimes a large part of the required area is not fully shaded. Students should be encouraged to be thorough in the shading. Students can find unit fractions of a quantity, such as one fifth or one seventh, but have a lot of difficulty with non-unitary fractions such as four fifths or

two thirds. They can often add and subtract fractions with the same denominator successfully, which is an outcome at Entry Level 3, but have difficulty completing a number pattern going up in halves, thirds or quarters at Entry Level 2.

Component 4 – Money

This mark scheme needs to be followed more closely, as this component is often badly marked. Sometimes an answer needs the units, £ or p, to be written for the mark to be awarded, but in other instances units are not needed, although students should still be encouraged to write the units on all their answers. These instances are when the student has been given the coins or notes to use. For example, they are asked to make a value using 50p, 20p and 5p coins only. In this situation a 50 cannot be a £50 note as there is not one available. However, if they must make £5 using 6 coins then a 1 could be 1p or £1 and so those units must be present. Some questions require 2 different lists of coins to make a particular value and in this series many students have wrongly been awarded 2 marks for only 1 list of coins.

Markers should check that amounts of money have been made with valid coins. For example, when asked to make 13p a common answer is 10p and 3p, which is incorrect as there is no 3p coin, but this is still regularly marked as correct. Students should be taught that the correct notation for money is in the form £3.65 not £3.65p, even though the mark scheme condones this incorrect version. Another common response in Set 1 for question 13a is 0.75p, which is not 75p, but ¾ of a penny.

Question 17 in Set 1, which is a 3-mark question, is often badly marked. If the student just answers 'no', with no value to compare because there is no working out, then no mark can be awarded. If the student shows $(\pounds)23.2(0)$, then 2 marks can be awarded for seeing that value. If the student makes a calculation and responds correctly for their value, then the final mark can be awarded.

Follow-through marks have been missed many times by markers. For example, there are two questions on Set 1, 13(b) and 19(b), that allow follow-through answers from an incorrect response to 13(a) or 19(a) respectively, and these are still marked incorrectly. The main example of this is when the student answers 19(a) as £78 instead of £137.50, then £62 in 19(b), which should be awarded 2 marks as a follow-through. This is still the most common marking error by centres.

Component 5 - The calendar and time

Marking of this component has continued to improve. Centres should note that the length of hands when drawing a time on a clock face is not penalised. However, please note that the hour hand must be at least 'on' the correct hour for a mark to be awarded. Students should have more practice drawing hands on a clock face prior to taking the assessment and learn that the hour hand moves from one hour to the next as the minute hand moves round. This component requires accurate drawing, so centres should use a scribe for poor writers and then send a JCQ Form with the portfolio.

Component 6 – Measures

Centres have improved the marking of Set 1 Q1, and similar questions on Sets 2 and 3, where students must use the centimetre grid to measure the lines, not a ruler, because the question

states that it is a centimetre grid. However, other questions require precise measuring, and when papers are photocopied rather than printed there are distortions. Centres must measure the lines on the students' papers and apply the 2mm tolerance rather than use the answer printed in the mark scheme. The mark scheme does ask in the comments section for the length of the printed line to be checked. Accurate measurement is also tested in the question about perimeter. Centres that reduce the papers to A5 size, or increase to A3 size, need to carefully measure the altered papers before marking and applying the tolerance.

In this component, students are most successful at selecting the correct measuring instrument and reading values from a scale, which are both outcomes at Entry Level 3. They continue to struggle to convert from one metric unit to another, and still find it difficult to select lengths in different units, such as metres and centimetres, and compare the total to a requirement, which is another Entry Level 3 skill. Centres also have difficulty in marking this question, but all the acceptable answers can be found in the comments section of the mark scheme.

Component 7 – Geometry

Geometry continues to be well done. Students whose number work is at Entry level 2 can often successfully answer Entry Level 3 questions in this component. They can recognise shapes and solids and can describe their properties. They have most difficulty with identifying horizontal, vertical and parallel lines and score badly on these questions. A bit of practice before taking the assessment would be helpful.

Rulers and pencils are still not being used to draw shapes or lines of symmetry. Students show understanding of symmetry but can be careless when drawing lines freehand, and often draw their lines outside the 2 mm tolerance or draw one or two feathered lines near each other. When these questions are marked, the centre rarely applies the 2 mm tolerance and questions are marked correct when the lines are out of tolerance. In Set 1, Q14, the horizontal line must go all the way across the circle to gain the mark and must be within a 2 mm tolerance of the correct line. Markers should use a ruler when marking this question.

Students are very good at reading coordinates and drawing a point with given coordinates at Entry Level 3. Markers should understand that, for example, (4x,1y) is not an acceptable alternative to the answer (4, 1) and should not be given a mark.

Component 8 – Statistics

Again, students should be encouraged to use a ruler and a pencil when completing graphs, which must be drawn in the style of the bars or blocks already drawn. If not drawn in that style, the response must be marked as incorrect. Very untidy graphs continue to be seen, with often no drawn edge to the top of a bar chart or block graph.

The questions on tally charts and frequency tables continue to be badly marked. Markers do not mark tallies in 5s correctly, as students have been gaining incorrect marks for drawing 5 vertical lines then a 6th one across. The completion of a tally chart at Entry Level 2 is often being marked incorrectly when frequencies, instead of tallies, are written in the tally column of the table. Many markers do not understand the meaning of 'condone frequencies added' for Q6a in Set 1, as students are awarded 1 mark when they write frequencies rather than tallies. The statement means

that if students write frequencies alongside tallies, then a mark is not deducted. If there are no tally marks, then the question gets no marks.

At Entry Level 3, the question testing use of a frequency table, which in Set 1 is Q9, is often badly marked. Students get a mark for evidence of tallying in 5s, then they gain a follow-through mark for converting 'their' tallies correctly into the frequency column, irrespective of whether or not the tallies are correct. If the frequencies are correct, they gain the final mark.

Internally Assessed Components

As stated earlier, there have been very few portfolios seen with internally assessed components, but the awarding of outcomes does continue to improve. Most centres use the recommended AQA-produced worksheets. Only 1 or 2 centres have used the commercially produced worksheets, which I have warned centres about in every Examiner's Report since 2018. They do not address many of the outcomes adequately, particularly in Components 1, 3 and 6. When using these inappropriate resources, centres were contacted and allowed time to re-assess outcomes using the AQA-produced resources.

It is still important to note that AQA has provided free downloadable worksheets for each of the outcomes across all eight internally assessed components. These resources provide good classroom practice before taking external assessments and are annotated correctly, fulfilling all the requirements for each outcome. Please note that most of the worksheets comprise at least 2 pages and have a box at the bottom of the worksheet that can be ticked to show awarding of an outcome. If the outcome has not been awarded, a comment for the moderator is very helpful. Internal components can be corrected by students and work can be annotated to show that amended answers are now correct.

Students do not have to get every question right to be awarded an outcome. Provided they have shown adequate skill at the outcome being tested, and around 70% of the responses are correct, then the outcome can be awarded. The moderator will usually support the decision of the assessor when some responses are incorrect.

A few centres misinterpreted the requirements of the specification in relation to subsuming. Portfolios were sent with only Entry Level 3 worksheets, with all outcomes from Entry Level 1 and 2 being claimed as well. Moderators contacted the centres in this situation and extra work was completed by students. Only lower-level outcomes that are subsumed by Entry Level 3 outcomes do not need to have a separate worksheet. The Student Record Sheet has outcomes in brackets that are subsumed, and there are outcomes in bold from Entry Levels 1 and 2 that must be seen if they are being claimed.

Internal work is also expected to be marked. It is not the role of the moderator to mark the work, therefore if work is not marked, moderators will return it to centres to be marked. There should also be no 'global' ticks. Each question should be marked right or wrong so that the moderator can see how much of an outcome has been answered correctly. Work sent in exercise books without annotation, or a copy of the worksheets used, is not acceptable and will be returned to the centre for further clarification.

Please take care when using internal work for Component 4 – Money. It is expected that answers will only be deemed to be correct if the students include the '£ or p' on their answers, as in the external assessment. Students should be taught to include the units as, for example, a 2 could be

a £2 or a 2p. It is advisable to get students to correct their answers with the appropriate units, which will help them as they move up to GCSE.

Conclusions

Overall, students scored very well, and moderators have again seen a lot of very high marks. There are very few students at Entry Level 1, implying that students are responding well to the content for this award. Please note that the grade boundary marks may change from year to year.

Each centre also has a Coursework Adviser who can be contacted to help with any questions. If a centre does not have details of their coursework advisor, AQA can be contacted for 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 students 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.