

ENTRY LEVEL CERTIFICATE MATHEMATICS

5930: Portfolio Report on the Examination

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Introduction

This 5930 specification for Entry Level Maths is now well established and the number of entries has increased each summer. There has also been an increase in uptake for the January series. Completing all eight components as external assessments is still the most popular option. Many of the total marks are above the threshold for a pass at Entry Level 3.

This report on the examination is split into three sections:

- Externally Assessed Components
- Internally Assessed Components
- Administration

Externally Assessed Components

Overall, centres are ironing out some of the problems that were encountered when this specification was rolled out. However, these are some of the general problems that moderators continue to see:

- students not writing their centre number and student number on the front of their assessments
- students writing in pencil when the front of each paper states that black pen must be used
- students being allowed to correct answers on the assessments, which makes it difficult to check whether the centre has marked the answers correctly and could lead to an investigation of malpractice
- markers writing correct answers alongside a wrong answer or showing the correct calculation to the problem, which must not happen. These are external assessments, comparable to GCSE papers, and must be stored exactly as the student has written them with the marking in the right hand column and **no other annotations**. They should not be given back to the student but should be secured somewhere safe ready to send to a moderator in either May or January.
- specimen assessments being submitted instead of live assessments from sets 1, 2 and 3. Marks are deducted for a specimen assessment. The assessment has 'Specimen' written in large letters across the front page. Moderators have tried to contact centres when this has happened to let the student retake an assessment from the live sets.
- two copies of the same assessment being included in the portfolio, which is not allowed and could be deemed to be malpractice. When this is seen by a moderator the mark used for the portfolio is the lower of the two. Students should be offered one of the other sets if they need to re-sit a component to achieve a higher mark.
- incorrect addition of scores for an assessment, which is very common. This is often because the marking is not done in the recommended way. There should be a score in the right hand column next to the mark available for that question. This should be 0, 1, 2 or 3 (as appropriate for the question). This makes it easier to add up page totals and then final totals without error. Answers can be ticked as well, but the scores are essential. Some markers put circles round the number of marks available or put lines through if the question is wrong. This is not adequate and leads to errors. It is helpful if a second person could

check the totals once marking has been completed and that the correct scores have been carried over onto the Candidate Record Form. Moderators can then check that all questions have been marked and the correct total score has been given.

- marking being done in the same colour pen as the student. Please use a distinctive colour like red or green for marking, to make it obvious that the paper has been marked.
- published mark schemes not being used. Many centres have several marking errors and have failed to apply the correct part marks for a question, or a follow through mark. There is additional marking guidance given in the comments column on the mark schemes which should be followed. If there is a query over how to mark a question, the AQA '5930 Coursework Advisor' can be contacted via email for additional help and guidance.
- marks being given for a question when the student has given two answers. In this situation the lower of the two marks should be awarded.

In September 2018, the mark schemes were updated on the AQA secure website and centres were notified about this. There were also some minor changes to question papers, much of which was cosmetic. The reason behind this was to make sure that all three sets of assessments were comparable and that the comments column on the mark schemes gives more guidance to help centres apply the marks.

Component 1 - Properties of Number

This component usually secures high marks for students and many achieve a full 30 marks, even though they may lose marks on other components. The mark scheme has been improved to allow students who write numbers in digits as words and numbers in words as digits, but put them in the wrong position, to be awarded the marks. There are also lots of allowable forms for a student to write the value of a digit. These are all included in the updated mark scheme, but are often marked incorrectly.

Component 2 - The four operations

Calculators **must not be used** in this component, but moderators see many students writing answers only, without 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 improving their skills in division questions and the questions testing understanding of repeated addition as multiplication. The new marking 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. It would be useful if students could have more practice with this type of question before taking the assessment.

Component 3 – Ratio

This is still a difficult component for many students. Students understand shading of sections of a diagram as a fraction, but their shading can be slapdash and sometimes a quarter or more of the required area is not fully shaded. Students need to make sure their shading is clearly visible. Students are able to find unit fractions of a quantity, such as a fifth or a seventh, but have a lot of difficulty with four-fifths or two-thirds, which is assessed in outcome 3.4. They can often add and subtract fractions with the same denominator successfully, but find difficulty completing a number pattern going up in halves, thirds or quarters, which is assessed in outcome 2.3

Component 4 - Money

This mark scheme has had the most changes and needs to be followed closely so that students are awarded a correct score. There are instances now where units are not needed, although students should still be encouraged to write the units on all their answers. The 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 have to make £5 using 6 coins then a 1 could be 1p or £1 and so those units must be present. 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 regularly marked as correct.

Students still need to 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. It appears that if papers are marked without using the mark scheme many markers also fail to identify the correct value from a calculator display. Please also note that 0.75p is not the same as 75p or £0.75; this was marked correct by several centres on the Set 1 Assessments in question 13(a).

Markers should be aware of follow-through marks. For example, there are two questions on Set 1, 13(b) and 19(b), that allow follow-through answers from an incorrect response on 13(a) or 19(a) respectively, and these are often 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 gain a full 2 marks as a follow-through. This is probably the most common marking error by centres.

Component 5 - The calendar and time

Marking of this component has improved each year. 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. It would still be useful for students to have additional 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 on the clock as the minute hand moves round. Even in these days of digital clocks this is still a skill that needs to be taught.

As this component requires accurate drawing, some students may need a scribe to enable them to achieve all the marks, and if so a JCQ Form should accompany the work.

Component 6 – Measures

When the new specification was implemented, there was a problem with questions assessing outcome 1.2, which states 'Give the length of a line drawn on a centimetre grid'. When answering the question, many students measured the actual length of the lines drawn on the centimetre grid, which due to printing distortions was not always an exact number of centimetres. My report, and moderator feedbacks, specified that only the published answers were to be used for marking as correct. This has resulted in much better marking of this question this series.

Centres must follow the mark scheme and only give marks for the correct answer. However, in this component, some questions require precise measuring and have comments to ask centres to check the length of images on their printed papers, allowing the 2 mm tolerance either side of the true measurement, as distortions can occur when photocopying. On occasions, student answers were marked incorrect when, in fact, they had been answered correctly. Centres that reduce the papers to A5 size need to carefully measure the reduced papers before marking.

Students continue to struggle to convert from one metric unit to another, and also still find it difficult to select lengths in different units, such as metres and centimetres, and compare the total to a requirement, which tests outcome 3.1. Centres also have difficulty in marking this question, but all of the acceptable answers can be found in the comments section of the mark scheme.

Component 7 – Geometry

This component continues to be well done. Students who may not reach Level 3 overall can often answer Level 3 questions on this assessment. 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 for the drawing questions. When asked to draw a rectangle, even though they get a mark when the intention is clear, students should be encouraged to use a ruler, as some very interesting 'rectangles' are seen.

Students show understanding of symmetry, but can be careless when drawing lines freehand without a ruler 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 2 mm tolerance is often not applied 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.

Component 8 – Statistics

Students must be encouraged to use a ruler and a pencil when completing graphs, which should be drawn in the style of the bars or blocks already drawn. If not drawn in that style, the response should be marked as incorrect. There are still a lot of very untidy graphs being seen, and often no drawn edge to the top of a bar chart or block graph.

This component continues to be badly marked, particularly when students are completing tally charts and frequency tables. Please be careful when marking 'tallying in 5's' as there should be 4 vertical lines and 1 diagonal/horizontal line to make the 5. Some students have been gaining incorrect marks for drawing 5 vertical lines then a 6th one across.

The completion of a tally chart, outcome 2.3, is being marked incorrectly when frequencies, instead of tallies, are written in the tally column of the table. The new mark scheme says that markers should 'condone frequencies added' for Q6a in Set 1 but this is only when the tally marks are also present, not for frequencies without tallies.

In the question testing use of a frequency table, outcomes 3.4 and 3.5, students get a mark for evidence of tallying in 5's, then they also gain a follow-through mark for converting 'their' tallies correctly into the frequency column, irrespective of whether the tallies were correct. If the frequencies are correct they gain the final mark.

Internally Assessed Components

Moderators are seeing fewer students with internally assessed components. However, 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. When submitting internally assessed work most centres did use

these resources. 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 would be very useful. Some centres continue to print only the first sheet of the outcome and therefore there may not be enough evidence to award the outcome.

One or two centres continue to use their own worksheets, and it is always pleasing to see a few really well thought out worksheets that enable students to show their competency. However, some centres continue to use a commercially produced set of worksheets. Unfortunately, this resource does not address all the outcomes adequately, particularly in Components 1, 3 and 6, where up to 8 outcomes cannot be credited, because these outcomes have either been misunderstood by the author or there were insufficient examples to prove competency. When centres use this resource as evidence, students have scores adjusted significantly during moderation, with the result that some students may receive a lower level of award. I would like to note that some centres have been told that these resources are inadequate on their individual Feedback Form but have continued to use them.

A few centres continue to misunderstand the awarding of internally assessed outcomes by rewarding students for just attempting to complete an outcome on a worksheet, rather than by demonstrating their competency in it. Internal work can be corrected by students and work can be annotated to show amended answers are now correct.

In a few instances, work was submitted that bore no resemblance to the specification and/or was not annotated with the component and outcome, which provided moderators with the difficult task of trying to secure marks for the students who, through no fault of their own, were not going to receive the award at the correct level. Please check through the outcome requirements carefully, as they are very specific. For example, Component 2 outcomes 2.4 and 3.4 require students to use and interpret +, -, \times and \div . If students only answer questions on addition and subtraction this does not fulfil the requirements.

At the other end of the spectrum, a few centres were overly severe on their awarding of outcomes. 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 correctly to make sure that the full outcome has been successful.

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. There are still instances of internal work being incorrectly marked by centres. 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 good teaching to get students to correct their answers with the appropriate units, which will help them as they move up to GCSE.

Administration

This series, omission of necessary paperwork has decreased. However, moderators still had to send several emails to centres to request this paperwork, and in some instances moderators received parcels with loose piles of assessments, not secured together.

The bullet points below list the main mistakes with administration, when moderators have had to contact centres before moderation can be started or completed:

- no Centre Declaration Sheet the most common problem, which can be scanned and sent via email
- no Candidate Record Forms, or incorrect completion or addition of scores
- no Candidate Record Sheet used to inform the moderator which outcomes are being claimed
- marks not being input by the 15th May and portfolios taking longer than 5 days to arrive following submission of marks
- incorrect total marks being entered into the e-submissions
- portfolios not arriving by 15th May If there is going to be a delay then an extension might be given if agreed with AQA
- centres not responding to moderator emails, requiring further emails or phone calls
- no JCQ form when a student has had a scribe or a reader

The following common errors continue to be made with students' portfolios:

- plastic wallets or folders/files have been used, whereas 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
- work has been organised in Component order, i.e. all Component 1 for all students has been collated together – all the work for one student must be together, preferably in component order
- no student number or centre number on the front page of each external assessment. These should be completed, along with a student signature.
- incorrect addition of scores on the Candidate Record Form when this happens some students may end up with a level different to the one they expect if the incorrect score straddles a grade boundary. For example, if a student's score should be 193, but was added to 189, they might be awarded Entry Level 2 rather than Entry Level 3. This may not be picked up at moderation if that student's work has not been selected for moderation by the esubmission system.
- centres failing to award 'subsumed' outcomes on internally assessed components, which can be easily spotted on the Candidate Record Sheet, as they are the outcomes in brackets. 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.

Overall, students have scored very well and moderators have seen a lot of very high marks. There are very few students at the lower end of scores, 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.

Please note that each centre has a Coursework Adviser who 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 <u>maths@aqa.org.uk</u> 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.