

FUNCTIONAL SKILLS MATHEMATICS LEVEL 1

8361/1 and 2 Report on the Examination

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8361/1- Paper 1

Section A

In **question 1** the majority of students chose the correct value, with the most common incorrect answer being 12

Question 2 was answered well, with a small number of answers of 3045

The order of operations **question 3** was only answered correctly by about half of the students, with the rest usually subtracting 21 from 60 first.

Less than half of the students could draw the correct lines of symmetry on the rectangle for **question 4**. The most common incorrect answer was to draw diagonal lines, either on their own or as well as the two correct lines.

The answer of 80 was the most common option chosen in **question 5**, with just over 40% of students choosing the correct value of 8

About 75% of students could gain at least 1 mark for the ordering decimals **question 6**, with common errors being to put 0.22 and/ or 0.202 before 0.2

The range **question 7** had the numbers already in order, but only just over half of the students answered it correctly. Common errors included choosing the mode, the median or the mean, with the answer of 16 (the mode) being the most common error.

Section B

Question 8 Video Blogging

Part (a) differentiated well, with a good spread of marks, and almost all students being able to score something. The values for 4-6 and 1-3 were follow-through marks based on their value for 10-12, and the drawing also followed through from their values. Students could often read 8 for the height of the bar drawn, but often made errors calculating the other two values. Some students completed the table but not the bar chart.

Percentages always cause a problem for Level 1 students, but about 30% of the students did give the correct final answer in **part (b).** Many students could work out that the price before discount would be £240 for the 30 000 coins but could make no further progress. Common errors in percentage calculations included subtracting 20 and dividing by 20. A significant number of students also thought that 20% was a quarter so divided by 4.

The more able students could make a very good attempt at **part (c)**, but the least able were confused by 5 coins and 1/5. A common error was to get to 140 and think that was the final answer. There were a lot of mathematical errors, particularly when multiplying 60 by 5 and when dividing 700 by 5

8361/2- Paper 2

Section A

Question 1 was answered correctly by just under 70% of the students, which is a lower percentage than a very similar question in a previous paper.

In **question 2** the options of $\frac{15}{4}$ and $\frac{9}{4}$ were selected by equal numbers of students. Overall, just over 40% of students chose the correct option.

Just over half of the students could measure the angle correctly in **question 3**, with the most common error being to measure it as 120°. It was clear, however, that some students did not have a protractor and so just guessed.

Question 4 was answered well, with a small number of answers of -30

The majority of students answered **question 5** correctly, with the other options being chosen by a roughly equal number of students.

Question 6 was attempted more successfully this series, with about 40% able to round to 1 decimal place. Common errors included rounding to 15 or just moving the decimal point one place.

Over half of the students could work out the mean in **question 7**, with approximately another 10% gaining some credit for at least totalling the values.

Students found the percentage increase challenging in **question 8**, but about 40% of students gave the correct value. A small number of other students could work out the 40% but did not add it on. About 45% of the students could not work out 40%, with the most common error being to divide by 40 or just add on 40

Section B

Question 9 The Kitchen Fitter

Many students found **part (a)** difficult to interpret due to the mix of units. A significant number of students just gave an answer with no working. If the answer was incorrect, they could not gain any credit for converting units or attempting to sum lengths. Students should be encouraged to always show working. About a third of all students gave a correct answer, with a further 20% making some progress, but almost 40% failed to score any marks.

Part b differentiated well, with some excellent drawings completed by just over a third of the students. A significant number of students misunderstood the depth of the cupboard, and a small number thought the whole grid was one wall. The least able students did not know how to apply the scale to the cupboard lengths.

The majority of students could make some progress with **part (c)**, usually by totalling two of the smaller cupboards. The half price offer confused some students, who applied it either just to one large cupboard or to the small cupboards as well.

Question 10 Flower Farm

Fewer than 20% of students could make significant progress with **part (a)**. A large number of students worked out the perimeter. A common error with those working out the area was to then ignore the 1.25 kg per metre and just compare the area of 16 980 with 20 000. A significant number of students divided by 1.25 instead of multiplying. The least able students could often gain 1 mark for converting 20 tonnes to kilograms.

In **part (b)** only about a third of the students understood what they had to do. The majority of these totalled the values and doubled them before multiplying by £8.29. The word 'estimate' was misinterpreted by a large number of students, who thought they could round all the values. This was added to the mark scheme to allow sensible estimations of any of the values. Almost 30% of students failed to gain any credit in this question part.

Part (c) differentiated well, with the majority of students choosing to draw a bar chart. There were some line graphs from joining crosses, and although partial credit could be obtained for heights and axes students should understand what type of chart is suitable for this type of data. The simplest choice is to draw a bar chart.

Question 11 Parcels

Those students who understood the table in **part (a)** usually gave a fully correct response. The less able students thought that a 2kg parcel cost twice as much as a 1kg parcel. A small number of students worked out the cost of the two different ways but then just said that sending in one parcel was cheaper.

Students continue to find using a formula difficult and do not understand the order of operations. This **part (b)** was made more difficult by them having to work out the volume first. Just under a quarter of the students gave a fully correct answer, but few gained part marks. Volume errors included just adding the 3 sides or working out part of a surface area. A small number of students were confused with the units and so cubed their volume when substituting it into the formula. The volume was often added to 15.25 before multiplying by 4.25

Question 12 The Theatre

Part (a) was a relatively straightforward 'work out one third off a price' task. Students did not attempt this very well, with less than 30% gaining the full 3 marks. Another 25% gained either one mark for working out one third of $\pounds 16.83$ and not subtracting or 2 marks for subtracting the correct amount but not making a conclusion. Another common error was to think that one third is 30%

Some students misunderstood **part (b)**, thinking that it was £8.40 for 2 ice creams. The vast majority of students could make some progress, but less than half gained full marks on this relatively straightforward proportion question.

Part (c) differentiated well, with about 40% gaining full marks. The 105 minutes for the show caused the most problems, with conversions of 1 hour 5 minutes commonly seen. A small number of students did not state whether Amy would catch the train.

There were a large number of non-attempts for **part (d)**, which could have been due to lack of time or the fact that it was a ratio question. About 25% of the students gave a correct response, with the most common error being dividing 1206 by 5

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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.