
FUNCTIONAL SKILLS **MATHEMATICS LEVEL 1**

8361/1- Non-calculator and 8361/2- Calculator
Report on the Examination

8361
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8361/1 Paper 1

Section A

In **question 1** about half of the students chose the correct option, with 5 and 29 being common incorrect choices

Question 2 was answered quite well, with errors mainly concerning the digits 256. Two million was seen on a number of occasions and the six was sometimes omitted altogether.

Question 3 was poorly attempted, with only about 40% of students working out the correct value. The most common answer was 1.8

The majority of students thought that the equilateral triangle in **question 4** only had one line of symmetry. A small number of students drew a horizontal line of symmetry on the shape. Less than one quarter of the students drew the 3 correct lines.

The brackets in the BIDMAS **question 5** seemed to help students complete it correctly. Over 70% of students gained both marks, with the vast majority of the rest calculating at least one bracket correctly.

Students did not score as well on **question 6**, which the majority found challenging. The most common error was to multiply both numerator and denominator by 24. A small number of students divided 24 by 8, then multiplied by 5 to get 15, but then went on to multiply 15 by 24

Section B

Question 7 Festival

Part a differentiated well, with the most able students being able to calculate both prices accurately and give a correct decision. The less able students could often work out the half day ticket price for Ticketz direct, but struggled with the 20% reduction for AtoZ tickets. Almost a quarter of all students failed to gain any credit, usually because they either just compared 2 days at £28 with 2 days at £26 or just wrote a sentence stating that half price is better than 20% off.

About one third of students worked out the correct time Emily could leave home in **part b**. Approximately 25% of students could work out that she had to take the 08:56 train but did not consider the 7 minutes between leaving home and the train time. A small number of students added 12 minutes and 7 minutes then either added 19 to or subtracted 19 from a train time.

Part c differentiated well, with the most able students calculating an average accurately and comparing with £22. Most students used the mean, and the small number of students who chose to use the median were usually successful. Those who worked out differences between £22 and each value often did not progress to a final value they could use for a decision. A significant number of students just totalled the 6 values. The least able students just stated that she was wrong as some spent more or less than £22

8361/2 Paper 2

Section A

In **question 1** just over half of the students chose the correct option, with $\frac{1}{4}$ and $\frac{4}{6}$ the most common incorrect choices.

Just over one third of students could convert centimetres to metres correctly in **question 2**. 2.46 was the most common incorrect answer.

About one third of the students gave the correct angle for **question 3**, with 180 and 60 being the most common errors.

The majority of student could calculate the squares in **question 4**, with a few errors seen in subtraction. The least able multiplied 76 and 47 by 2 or subtracted 76 and 47 and gave the answer as 29^2

Students found **question 5** challenging, with the majority not attempting any conversion to decimals or fractions with a common denominator. These students generally just gave the order as numerators or denominators in order of size. A common error was to think that $\frac{2}{3}$ is equal to 0.6 so having two conversions as 0.6. Only about 20% of students gave the correct order, with a small proportion failing to gain any credit.

Question 6 on calculating the range is a fairly common question on these papers. However, less than half of the students could work out the range correctly, with median and mean both seen. Some students arranged the values in order but did nothing else, and a small number subtracted the given end values of 20 and 18

In **question 7** those students who knew what to do usually found the correct answer. However, this was only about a quarter of all students. A small number were able to find the area(s) of one or more rectangles but were unable to combine them in a correct way to find the total area. The most common error here was to work out 10×9 and 7×5 instead of 10×9 and 17×5 . It was common for students to attempt to work out the perimeter rather than find the area. A small number of students multiplied strings of side values together.

Section B

Question 8 Building Company

Part a was generally well attempted, with about half of the students gaining at least 4 marks. It was common to get as far as 7 hours and stop. Quite a few got as far as 874.5, sometimes finding 53 as well. Alt 2 was the more commonly attempted method. Students sometimes lost accuracy by ignoring the pence in their calculations.

In **part b** about half of the students understood that 28 should be multiplied by 11 **before** adding 45. A small number of students did not make a conclusion.

It was very common to just work out 92.8(0) for **part c**. A small number of students divided 70 by 1.45 but did not know what to do with it or what else was needed in order to answer the question. A very small number of students misread the scale as $\frac{1}{5}$ full instead of $\frac{1}{4}$ full.

Question 9 Cycling

Part a differentiated well, with a good range of marks seen. The percentage was a little easier as it was 10%, but some students worked out 10% of the single or total monthly payments rather than of the cash price. A significant number worked out the cost of £606 but did not compare the difference with 35. The least able students usually just multiplied 12 by 45.75 and stopped.

About a quarter of all students drew correct bar charts for **part b**. Students usually read the given bars correctly and subtracted from 115. A common error was to then divide 36 by 2 or 4. Bars were usually drawn to the correct height for their values for Y7 and Y11.

Question 10 Wedding

In **part a** those who coped with the scale usually managed to draw 3 or 4 rectangles. Labels were not always included. A common error was to leave gaps of at least two squares between the tables but not between the tables and the edges. Some students only drew one guest table, but labelled it as 2 guest tables. The weakest students just drew the number of squares to match the metres given eg main table drawn 5 squares by 1 square. This question differentiated well.

Students generally found **part b** demanding, with less than 40% giving the correct value for this relatively simple ratio question. Common errors were subtracting 3 from 21 and subtracting 5 from 21.

In **part c** it was quite common to get 425 and 90, or 40 and/or 150, or 1275 and/or 270 with no further progress. Some attempted scaling, to find the amount needed for 10 or 1, but didn't always scale up successfully. About 20% of students gained full marks, but almost 50% failed to score.

Question 11 School Playground

Part a was answered well, with nearly 60% of students gaining at least 3 marks. The missing mark was usually for leaving the answer as 34.6 rather than the correct money notation of £34.60. For less able students the common errors included dividing 62 by 1.20 and adding the two values. A small number of students ignored the cakes altogether.

Part b had the usual issues with working out a volume. Lots of addition of lengths or surface areas were seen. The majority of students divided by 0.05, but a small number multiplied. Some left their answer as 6.3 bags needed, not appreciating that 7 would have to be bought, which is a common misunderstanding in functional problems.

Part c was answered well by the more able students, but this was a complex question and some students did not include all the lengths when totalling. The most common error was forgetting that there were two 10m sides or two 28m sides. Other errors included not dividing by 2 for the number of panels and just using the lengths, or not comparing their answer with £1600.

Mark Ranges and Award of Grades

Grade boundaries and cumulative percentage grades are available on the [Results Statistics](#) page of the AQA Website.