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# FUNCTIONAL SKILLS MATHEMATICS LEVEL 2

8362/1 - Non-calculator and 8362/2 - Calculator  
Report on the Examinations

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8362  
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## 8362/1 – Non-calculator

### Section A

**Question 1** was answered correctly by nearly 85% of students, with no commonly selected incorrect answer.

Writing the number in words in **question 2** was achieved by just over two thirds of the students. Those not scoring the mark often wrote nine, seven or five as a digit instead of a word.

Around half of the students were able to subtract the decimals in **question 3**. Seeing an answer of 5.337 was common, where students worked out  $0 - 7$  as 7 rather than carrying digits in their column method.

**Question 4** was the order of operations question, which saw a mixed response. Around half knew the order required, while the errors in the three examples in the additional guidance section of the mark scheme were seen regularly.

Around 10% did not attempt **question 5**, which was changing a mixed number to an improper fraction. Of those who attempted this question, around 50% scored the mark. Incorrectly multiplying the numerator and denominator by 4 was seen a few times.

Working out the missing angle around the point in **question 6** differentiated well. Around 60% of the students scored full marks and just over 10% scored one, generally due to an error in their addition or subtraction or thinking that the right angle was opposite and equal to  $89^\circ$

### Section B

#### Q7 Rowing club

**Part (a)** was well attempted and most students were able to make some progress by adding the given times onto 7:30. Around 40% knew that if the speed was 10 km/h then 5 km would take half an hour. Unfortunately, the other students had little conceptual understanding of what the speed meant and used the formula incorrectly, often working out that 5 km would take 2 hours.

**Part (b)** differentiated well, with a wide range of scores seen. Around a quarter of students worked out  $\frac{7}{12}$  and stopped, missing out on the final mark.

The scatter graph in **part (c)** saw nearly all students having an attempt. As is regularly seen at level 2, students were often forgot the need to draw a line of best fit. These students were able to access the mark for plotting the two missing points, which was generally very successful, and for writing the units in their answer. Some of the stronger students only picked up 4 out of 5 marks by missing the instruction to include the units in their answer.

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## 8362/2 – Calculator

### Section A

Over 90% of students were able to correctly identify the smallest number in **question 1**, with only a few thinking it was  $-3$

The FDP table in **question 2** was well attempted, with 0.04 proving the most elusive. A few thought  $\frac{17}{20}$  was 17% and some put  $\frac{1}{59}$  for 59%

Finding the midpoint of the given line in **question 3** was well answered. There were a few responses that had the  $x$  and  $y$  coordinates the wrong way round, but overall this question was handled confidently.

**Question 4** required students to work out the median of the list of given numbers. This received a mixed response, with about 40% not scoring and 40% getting both marks. Some students appeared confused that there wasn't a middle number and wrote 8 and 10 which scored one mark.

Expressing a number as a percentage of another proved tricky in **question 5**. Many students thought it meant  $76 \times 2 = 152$

Sharing into a ratio in **question 6** provided mixed results. Around a third of students attempted the question but didn't score, generally as they thought they should work out  $126 \div 3$  and  $126 \div 11$

**Question 7** was the lowest scoring question in section A, with 35% scoring full marks but nearly 50% attempting the question but not picking up a mark. It was very common to see the answer that 9 is closer to 5 than 0, and many responses just picked one of the decimals without any working. It was good to see that the methods of subtraction and addition seen by the stronger students were very accurate.

### Section B

#### Q8 Pets

**Part (a)** was very well attempted, with the majority of responses using alternative methods 1 or 3. Most students were successful in working out 17% of £195, with around half of students going on to score full marks.

Using the kg to pounds conversion in **part (b)** got a mixed response, with many students working out that  $1.5\text{kg} = 3.3$  pounds but being unsure how to continue.

**Part (c)**, where students needed to substitute the new side length into the given formula, saw nearly a quarter of students not attempting the question. Several were able to pick up the first mark by writing  $2 \times 1.1^2(1 + \sqrt{2})$  but seemed unable to use a calculator to evaluate it. It was very common to see  $21.1^2(1 + \sqrt{2})$  written down and evaluated using  $21.1^2$

### Q9 Summer house

In **part (a)** the very practical application of calculating a total cost including delivery and splitting it into a deposit and monthly costs was well attempted. Over 82% scored at least a mark on this part, with a wide range of marks being scored. It was a reasonably common error for students to ignore the delivery cost or think that the full delivery cost had to be paid at the beginning.

**Part (b)** was the most successfully answered question on the paper. Students were awarded marks for either an accurate plan of the summer house, taking into account the distance restrictions, or for identifying the possible region to place the summer house.

Working out the area of the front of the summer house proved the biggest challenge in **part (c)**. Even the stronger students struggled to calculate the area of the triangle. There were several responses that tried adding the side lengths and others that just used the 3 m as the area. Over 60% were able to score at least one mark, usually by calculating the area of the rectangle, and a significant number were able to substitute their area and 4.5 into the formula to pick up the 3<sup>rd</sup> mark.

### Q10 Earnings and saving

**Part (a)** required students to calculate a total weekly pay, including overtime, and the income tax and national insurance payable, which is a topic that often proves challenging at level 2. This question differentiated well, with a wide range of marks being scored. Recognising the need to subtract the tax threshold or NI boundary eluded many students. It was encouraging to see that the majority of students could calculate 20% or 12% of an amount. A few of the stronger students were able to get to 374.1 and missed out on the final mark by not writing it in correct money notation.

**Part (b)** was comparing the interest available in two different banks, which proved difficult for many. It was common to see students calculating simple rather than compound interest for bank A as well as thinking it was only the year 3 interest payable from bank B.

### Q11 Soft Play Centre

Around half of students were very confident in **part (a)**, where they had to work with the ratio. The other half started by adding the two parts of the ratio together to get 19 and were unable to make any progress.

Having to calculate the volume of a cylinder in **part (b)** proved a real challenge for many, with this question having the lowest mean score on the paper. Over 25% were able to score two marks by recognising the need to divide by 1000 and 50. Around another quarter were able to pick up a single mark, usually from multiplying an integer by the cost of one bag of play sand.

Students scored a wide range of marks in **part (c)**, where the majority that attempted the question were able to sum the number of children to get 40. Many were able to identify the 13 children in the age group but struggled to compare this to the  $\frac{3}{10}$ . It appears that some students struggled to manage their time in this paper, with a higher than expected number of non-attempts on this probability question.

### **Mark Ranges and Award of Grades**

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