
FUNCTIONAL SKILLS **MATHEMATICS LEVEL 2**

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

8362
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8362/1- Non-calculator**Section A**

Question 1 was well answered, with the majority of students correctly identifying the outlier on the graph. A few incorrectly selected D, which was the end point of the graph.

The subtraction in **question 2** was also completed well. There were no common errors, but the occasional slip occurred when students carried digits between columns.

Over 70% scored full marks in **question 3** by correctly interpreting the frequency tree. It was very rare for students to make an error when simplifying their fractions.

Calculating a percentage of an amount in **question 4** was achievable for many. However, around a quarter of the students scored no marks. It was fairly common to see 90% being calculated instead of 19%. 1% was often given as 1.5, with no working, instead of 15, which students then struggled to multiply by 9

Nearly two-thirds of students scored full marks by finding the missing angles in **question 5**. A small number thought that angles on a straight line had a sum of 360 degrees. Several students found the value of x correctly and wrote the same value for y .

Section B**Q6 Baby**

Part (a) differentiated well, with almost all students being able to make some progress. A wide range of different approaches was seen. Several students divided the x -axis into sections of 16 ounces, which generally worked well. The students who compared their graph reading to 8×16 were more successful than those who attempted to divide by 16.

Misreading the scale on the x -axis was fairly common to see, with readings of 122 or 128 seen most often.

Part (b) proved the most challenging question part in this paper. Students who found the median or mode generally did this correctly. Those who calculated the mean generally used the correct method, although some arithmetical errors occurred. Numerous students thought that finding the median and the mode, that were both heavier than Ella's baby, or just calculating the mean, which was lighter than Ella's baby, was sufficient. It was also common to see the range being quoted as an average.

Calculating the saving in part (c) gave a wide range of scores, and many students wrote down clear working. Finding a third of a value caused a few issues, where some students worked out 30% or tried multiplying by 0.33 before getting stuck. Many students were able to pick up two marks for getting to 4.5 or 9p but were then unsure how to continue. Those who got to 9p generally subtracted it from 21 to get an answer of 12p.

8362/2- Calculator

Section A

In **question 1** the majority of students correctly identified the probability of the event not happening. Around 10% incorrectly selected zero as their answer.

Students struggled in **question 2** to work out the square of -3.2 correctly, often evaluating it as 6.4 or $9.4 \ 5 + -10.24$ was the most common error.

Question 3 was generally accurately answered, with a few students putting the x and y values the wrong way around, although $(4, -3)$ was also seen quite regularly.

Over two thirds of students were able to correctly answer **question 4**, with the next most common answer being 11, 2, -1

In **question 5** students generally knew what was required. However, around 20% only scored one mark because they simplified once and stopped, often at 72:45 or 48:30

Most students seemed well prepared for **question 6** on calculating a missing angle in an isosceles triangle. A few used 360 degrees and some worked out $180 - 42$ and then divided by 2

Section B

Q7 Energy

Part (a) proved challenging, with over 50% failing to score any marks on this question part. Although the need to use approximations was highlighted in the question the majority of these students made no attempt at rounding. Those that rounded some of the numbers correctly picked up part marks, although the concept of a standing charge was not widely understood. Some tried adding the cost per unit of gas and the standing charge. It was fairly common to see 3 and 40 being used with 1976 remaining unrounded. This meant a maximum of two marks could be awarded. Part (b) was answered far more successfully, with many good results coming from alternative methods 1, 3 and 4. The weaker students who weren't sure of a complete method were often able to pick up one mark for 162 degrees or 57%. Part (c) also proved a real challenge, with the majority of students not appreciating that the given price had already been reduced. Finding 27% of the value, increasing by 27% or finding 27% and subtracting it were all regularly seen.

Q8 Dog

Part (a) gave a wide range of scores. The weaker students were generally able to pick up marks for understanding the multiplication by 4 or calculating their length of walk as a percentage of 5000. The stronger students were able to calculate the perimeter accurately, although doubling the semi-circular ends of the track to give a distance of [188.4, 188.6] instead of [94.2, 94.3] was fairly common. The ratio in part (b) differentiated well, with many picking up full or part marks on this question. Many students worked out 300 and then calculated $1200 \div 300$ with no working for 1200, therefore scoring only two marks. A few worked out $420 \div 5$ and several tried 12×5

In part (c) a lot of students were able to get 5.4, and often got to 0.9 before being unable to progress. Those who got to 0.9 often tried $0.9 - 0.72$ or 0.9×0.72 . Calculating one sixth of 5.4 proved problematic, with several students attempting to change one sixth to 16.6% or 0.166 and then getting stuck.

Q9 Fundraising

There were some very good responses to part (a), with many getting the correct answer by comparing the speeds. A few decided to make a comparison of the lengths using alternative method 4. The most common error was for students to calculate $25 \div 38$ or its reciprocal or to calculate $2280 \div 1250$.

Part (b) was also very well answered, with over 60% scoring 2 or 3 marks. Many worked out 7.50 or 37.50 and thought that was the answer. Several changed $\frac{6}{7}$ to a percentage and then didn't

know how to continue. Calculating the mean from a frequency table is often a challenge at level 2, but around a third of students scored full marks in part (c). Many scored two marks for calculating 370 or by finding the correct midpoints and picking up the fourth mark with 17.85. Common errors seen were $370 \div 5$ and using the upper class boundaries.

Q10 Conservatory

There was a good spread of marks in part (a), where most students were able to split the area up and find at least one area correctly. The most common error was not dividing by 2 for the area of the triangle. It was fairly common to see students multiplying all the lengths together and then multiplying by 0.1. Quite a few got a total area of 17.55 but then multiplied by 10 or 100 rather than multiplying by 0.1.

The scale drawing and ratio question in part (b) mainly scored full or no marks. Around 17% didn't attempt the question and over half didn't score. Those who scored two marks generally forgot to show the 400 as a comparison to their calculated 390. There were some misunderstandings of the scale with some starting with $50 \div 23.4$ or adding 3 and 50 to get 53 parts and trying to do something with this. The more able students used efficient methods and showed clear working. In the final question part it was very pleasing to see that more than 94% of students attempted the question, indicating that they had managed their time well. For a concept that is often a challenge at this level students coped well with this question, with over 46% scoring full marks. Forgetting to include Molly in the calculation or giving the answer of 117.84 as the cost for both builders were errors that were seen regularly.

Mark Ranges and Award of Grades

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