

Functional Skills **Mathematics**

8362/1 and 2 Report on the Examination

8362 March 2020

Version: 1.0



8362/1

Question 1

This question was very well answered, with few students choosing the wrong option. Those that did generally chose 0.125 or 0.375.

Question 2

Almost two thirds of the cohort used the correct order of operations and calculated accurately. Arithmetic errors were common, often when evaluating 8×12 or thinking that 2^3 was either 6, from 2×3 , or 16, from $2 \times 2 = 4$ then 4×4 .

Question 3

Just under half of the students stated all three values correctly. It was common to see 0.6 converted to 6% rather than 60% and the decimal was sometimes stated with 2 decimal points or just given as 0.27 or 0.28.

Question 4

This question was done correctly by the vast majority of students.

Question 5

It was rare to see completely correct solutions to part (a). Many students had difficulty working out the cost of the holiday in Thailand. Finding £900 was a common valid start for many, but then students had varying success with finding the child price, many adding 40%. Those who did find the child price successfully were often unable to include the special offer. Working out the cost of the holiday in Hawaii was done with slightly more success. A common error was to find the 10% discount but then add it on rather than subtracting it. This was often then doubled for the second week.

Part (b) was not done well, mainly due to students working out 19.95 + 12 first. Sometimes this was then multiplied by 13, but often it was multiplied by 14 before subtracting 1.

8362/2

Question 1

The correct point was chosen by the vast majority of students. The most common incorrect point chosen was D.

Question 2

Almost half the cohort were able to correctly work out the size of angle x. The angle properties of isosceles triangles were not known by many students. A very common error was to think that all three interior angles of the triangle were 36° , while others stopped at 180 - 36 = 144.

Question 3

Approximately half the cohort drew the elevation correctly in part (a). Some miscounted and added an extra cm in one direction or the other.

In part (b), approximately one quarter of the cohort were able to work out the surface area correctly. Over half the cohort correctly worked out the surface area of only one side or one pair of sides. It was also quite common to see the lengths of the edges added.

Question 4

It was very rare to see a correct solution. Common incorrect responses were to give 0.7 + 0.7 = 1.4, or 0.7 + 0.7 = 2.1, or just 0.7.

Question 5

The minority of students who knew the formula were often able to use it correctly. It was common to see answers of 24 and 48 from 7.5×3.2 and $2 \times 7.5 \times 3.2$ or just $3.2^2 \times 7.5$.

Question 6

This question was poorly answered.

In part (a), students often found the total of the frequency column and divided by 5, or found the correct products but made no further progress. Approximately 20% of the cohort was able to correctly answer this question.

Part (b) was less well done, with the vast majority of students not understanding the reverse percentage nature of the question. It was very common for students to reduce 708 by 20% or just find 20% of 708.

Students had more success with part (c) than either of the other parts of this question, with almost a quarter of the cohort providing a completely correct solution, often working to 17 minutes and then 'Yes'. Some showed that Fran needed 2 hours and 30 minutes and Paul needed 2 hours and 47 minutes without realising that they also needed to find a value that could be compared with 10 minutes. Some did find the difference as 7 minutes but then thought that this was the time Fran was waiting and said 'No' as this was less than 10 minutes. The majority knew that distance ÷ speed = time, but not all realised that the units needed changing first.

Question 7

Many students made a good start to part (a) but then didn't progress beyond $\frac{1}{4}$ or $\frac{75}{2}$. Just over one third of students went on to work out the correct fraction.

Many students also made a good start to part (b), either by finding the mass of one or two biscuits or the mass of sugar in the whole pack. Approximately half of these students then went on to find the mass of sugar in one or two biscuits. Common errors were $\frac{30}{6.6}$, $\frac{450}{30}$, $26.4 \times 2 = 52.8$ and $26.4 \times 4 = 105.6$.

Approximately one sixth of the students managed to provide a completely correct solution to part (c), and approximately the same number gave the answer as 6745.76. Many students knew that 70×126.8 would give the cost of a full tank of fuel, but some were concerned that 126.8 was not a whole number of pence and used 126 (truncated), 127 (rounded up) or 134 (126 + 8). Some students made partial progress by finding the cost of the 24% that was already in the tank instead of the amount of fuel that was needed to fill up. A common error was 70 - 24.

Question 8

This question was not done well.

Part (a) was the best attempted part of this question, but approximately half the cohort were unable to find the area of one of the component shapes. A common error was to not divide by 2 when finding the area of one of the triangles. Also quite common was for students to use 3.5 in place of 3 when finding the area of the triangle. Also common was to total the lengths to 25.

Part (b) was found to be very challenging by the majority and it was rare to see a correct solution. It was very common to see $\frac{11}{3}$ = 3.6, and addition and subtraction in attempts to find the required number of workers. Many students did not appreciate that more workers would need less time and fewer workers would need more time. 11 - 7 = 4 was often seen.

Part (c) was done slightly better than part (b). Many students were able to make a start by doubling the area of the drive and knew to divide by 1.5, so that 48 was quite common as a final answer. A common error was to divide the area of the drive by 2.

Question 9

Part (a) was not done well, mainly due to lines of best fit not being used and students not always realising that the data in the table needed to be plotted as points on the graph. Amongst those who did plot the points a common error was to plot (3.2, 180) at either (3.1, 180) or (3.2, 160). The few lines that were drawn were usually appropriate and used correctly.

Part (b) was not attempted by almost one third of the cohort. It was rare to see a fully correct answer. Some got as far as finding the number of strips on a roll or finding the number of widths needed for the wall and occasionally both. It was quite common to find areas. Many did not realise the scale was needed or how to use it.

Part (c) was better done than the other parts of this question by those who attempted it. There was a variety of successful approaches, with almost as many students working towards 15.5 feet as there were working towards 450 cm and 465 cm. It was quite common to see incorrect conversions between metric units, particularly with $2\frac{1}{4}$ metres to centimetres or 90 centimetres to metres. Some students made arithmetic errors. Those who converted the distances to feet first often made errors with $2\frac{1}{4}$ metres .

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.