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# Functional Skills Level 1

# Mathematics

8361/1 and 2  
Report on the Examination

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8361  
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**8361/1**

**General comments**

Students seemed to find this paper more challenging than the previous series but most still attempted to answer all the questions. There was very little evidence of a shortage of time.

**Section A**

**Question 1**

Students found this question challenging, with only about one third of students choosing the correct response. The most common incorrect response was 0.35.

**Question 2**

This question was answered better than question 1, but a large number of students subtracted 5 from 40 before multiplying by 3. A small number of students worked out 15 but then gave the answer to  $40 - 15$  as 35.

**Question 3**

This question was the most poorly answered on the whole paper, with the vast majority of students giving the answer 0.8.

**Question 4**

There was a very varied response to this frequency table question. Around half of the students understood what to do and counted correctly, showing correct use of tallies and accurate total frequencies. Of the others, around half knew how to tally and calculate frequencies but made an error in counting. The less able students often wrote the actual numbers in the tallies, or had tallies which were totally incorrect. A small number of students used relative frequencies for the frequency column.

**Question 5**

The most common choice of answer was 60, with only the more able students choosing 6.

**Question 6**

Students at this level often struggle to work out volumes, but over one third of the students did work out this volume correctly. Common incorrect responses included working out some areas of faces and adding them, or just adding 8, 4 and 5. A small number of students worked out the volume but then divided it by 2.

**Section B****Question 7 Personal budgeting**

Part (a) differentiated quite well between students, with the majority managing to make some progress. The most able students were clear in their method and gave the final correct answer. The majority of students subtracted 500 and then found a quarter of 500 successfully, but then had problems getting any further. A small number subtracted 125 from 500 and then found  $\frac{3}{5}$  of the remainder, but the most common problem was working out  $\frac{3}{5}$  of the amount.

Part (b) also differentiated well between students. The majority knew that they should multiply 73.50 by 10, but a common incorrect answer to this was 703.50. Students often used inefficient ways of multiplying by 10, including the grid method and adding ten lots of 73.50. The main problem, however, was the subtraction, with many students unable to cope with the 95p part of the cash price. Those who subtracted 689 from 735 and then attempted to deal with the 95p were rarely successful. Students should be encouraged to check their final answer in this type of question by adding it back on.

Students at this level struggle to interpret pie charts and part (c) was no exception. Very few students made significant progress and there were more non-attempts on this question than on any other. A small number of students realised that leisure was half the spend of households' bills, or worked out the difference in degrees between leisure and clothes. Less than 10% of all students made any further progress. The most able students realised that 1 degree represented £3 and could then complete the question.

**8361/2****General comments**

Students found some of this paper challenging. There were a large number of non-attempts on all parts of question 12, which may be evidence of a lack of time to complete the paper.

**Section A****Question 1**

Only about half of the students chose the correct type of angle, with the most common incorrect response being obtuse.

**Question 2**

The correct position was shown by about half the students. Common errors in position were using the centre of the scale or placing their arrow at  $\frac{1}{6}$  or  $\frac{5}{6}$

**Question 3**

This question was answered well by the majority of students. A small number of students inserted extra zeros after the digit 1.

**Question 4**

The more able students drew good nets, with some students also correctly labelling them. However, a large number of students either just drew the 3D diagram again or had no idea what the net looked like.

**Question 5**

The majority of students did not understand what 2 decimal places meant, giving answers of 7.9 or changing the number to 786.52. Only about a quarter of the students rounded correctly.

**Question 6**

Those students who knew that there are 1000 grams in a kilogram usually converted correctly. However, just as many students thought that there are 100 grams in a kilogram.

**Question 7**

The vast majority of students knew that there are 31 days in October, but answers of 30, 28, 28 and 32 were seen.

**Question 8**

Almost half of the students could work out 30% of 250, but a small number of these students did not add it on to 250. Very few used the method of multiplying by 1.3, with the majority finding 10% first. The least able students divided 250 by 30.

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**Section B****Question 9 Dance studio**

The majority of students made progress with part (a), but only the most able arrived at the correct answer and conclusion. The most common error was to add three 10-minute breaks, so giving the answer 8.37 and 'No'. Other errors included forgetting the 12 minutes time to walk, or working on the assumption that there are 100 minutes in an hour. Those students who worked through the times a class at a time were usually more successful, eg  $5.30 + 45 \text{ minutes} = 6.15 + 10\text{-minute break} = 6.25$  etc.

The students who correctly found the area in part (b) often then went on to work out the correct number of students. However, a significant number divided by 16 rather than 4, presumably as they think  $4 \text{ m}^2$  is 16. A large number of students added the two dimensions, so could only access the mark for rounding.

In part (c) half of the students could work out  $\frac{1}{3}$  of 129 and 25% of 112, but then quite a large number of these students did not subtract these values, so compared 43 and 28. A significant number of students thought that  $\frac{1}{3}$  is 30%. The least able students just subtracted  $\frac{1}{3}$  from 129 and 25 from 112.

**Question 10 Indoor climbing centre**

In part (a) students who multiplied 7 by 6 usually then gave the correct final answer. A small number of students successfully used a visual representation method to arrive at the answer. The most common errors were to multiply or divide 23 by 6.

Part (b) differentiated well between students. They could draw a dual bar chart, composite bar chart or 2 line graphs to answer this question. Some students chose difficult scales so could not draw accurate heights, or had scales that were not linear. Those who chose sensible scales such as  $1 \text{ cm} = 5$  or  $1 \text{ cm} = 2$  usually drew accurate height bars. Those choosing to draw a composite bar chart invariably showed the combined height but not the division between adults and children. Labelling of the vertical axis was often missing and the key was not always clear. Students should be encouraged to use different types of shading eg solid and diagonal lines or shaded and unshaded. Using different colours or pencil and pen is not always distinguishable once the papers are scanned. Time series graphs were accepted but should not have been joined to the origin.

About one third of the students could work out the mean in part (c) but a small number did not make a conclusion or made the wrong conclusion. Those who did not work out the mean usually based their decision on the number of times that were over or under 8 minutes.

**Question 11 Back to school**

Almost all of the students could access part (a), with a large number of fully correct solutions seen. However, errors were seen in adding and in place value when adding whole number and decimal costs. Some students did not find all the multiple costs of the items where required, with the least able failing to work out any multiple of an item. A small number of students gave an incorrect conclusion for their values.

Students who worked out the pocket money each week in part (b) were usually the most successful. Those who found the total number of jobs first often then only added £5 instead of  $3 \times £5$ . About a quarter of students multiplied the number of jobs by 5 then added 3 lots of 2.50.

**Q12 Handbags**

In part (a) students who used the grid to draw rectangles of the correct size were more successful than those who attempted to work out the number fitting each way. However, a small number of students did not then count their rectangles accurately. Those who got to 15 usually then multiplied by 4 and concluded that he did need 4 sheets. However, a small number said he didn't as he could make 60 and only wanted 50. A small number of students worked out area divided by area, which did not work, but they could access the final marks. About a quarter of all students did not attempt this question.

Part (b) proved challenging to the majority of students, with many being unable to assimilate all the information. Common errors including mixing different units, dividing 75 by 6 or dividing 50 by 6. The most successful method was to compare  $75 \times 50$  with  $5 \times 600$ . Students should be reminded that working is required if asked for in the question. Answers of 2 with no method seen gained no credit. There were many non-attempts on this question.

More students could make progress with part (c) than with part (b), but there were still many non-attempts. The correct answer was seen from about one quarter of the students. A large number of students totalled the costs accurately. Some of these then divided by 50 but did not add on the 3.50 profit. Others added the 3.50 profit before dividing by 50.

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

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