
Functional Skills Certificate

MATHEMATICS

4367 Level 1

Report on the Examination

4367

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General

The paper appeared to be generally accessible to its target group, with all parts of all questions attempted by the majority of students. There was some indication that some students may have had insufficient time to complete task 4.

Some students found it difficult to organise their work, so it appeared that calculations were being done 'out of order' with 'answer' values appearing before working had been finished. A small number of students did not make conclusions when asked.

Topics that were well answered included:

- working out calories and planning a gym session
- using a given formula to work out the area of a rectangle
- planning a garden.

Topics which students found difficult included:

- using rules to check the number of people allowed in a hall
- describing the trend in customer ratings
- checking their answers.

Task 1 Garden

- (a) This question was generally well done, with the vast majority of students labelling the different areas clearly. Common errors included not filling the whole layout (often due to rotating the patio through 90°), miscounting lines for spaces so that the patio was 3 by 9 and/or the flower beds 9 by 1 and overlapping different parts of the garden. A small number of students did not label the different areas.
- (b) Most students said that 8 lights were needed, with very few correct answers of 9 being seen. Quite a few mixed up the conversion of units and used 10 rather than 100. A large number thought that the diagram was drawn to scale, so attempted to measure and fit in another two or three lights.
- (c) This question was answered correctly by the majority of students. Some gave a valid inverse operation as a **check** but, as usual, there were a number of students who either gave working in the 'check area' and just an answer in the first part or just repeated the same working for the check.
- (d) This question differentiated well. The majority knew they had to multiply by 152, but many multiplied this by an incorrect number. Quite a few started well with the correct division then failed to round correctly, using 4.4 or 4 as the multiplier.

Task 2 Concert

- (a) There were some very good answers to this question, but it proved challenging for many students, who found it difficult to cope with all of the information. Sometimes the only indication that the widest door was ignored was by crossing it off in the list in the question. A common error was to use all four doors; this usually led to an answer of 700 and the conclusion yes, with or without 480 being found. Other errors included giving the wrong number of people for the 1080mm door and multiplying 480 by 2. A very small number of students used some of the values in the example on the data sheet.
- (b) There were many correct answers to this question. The most common error was to work out that Ruth received £250 but then divide this value by 4. Quite a large number of students failed to work out $\frac{1}{3}$ of 750 correctly, with division by 2 and then by 2 again being frequently seen. Others used 30% for $\frac{1}{3}$ and a very small proportion subtracted $\frac{1}{3}$ from 750.

- (c) This question was often answered well. However, many students stopped after finding 1510 and 2550; others found the actual profit but then did not make a conclusion. Arithmetical errors were fairly common and some miscopied their own figures with 2550 sometimes becoming 2250. A small number worked out only the cost or only the income and not both.
- (d) Students at Level 1 often find working with time a challenge; however, there were a lot more correct answers than usual for this question. A small proportion thought one and a quarter hours was 1 hour 40 minutes and there were the usual problems of subtracting using a calculator with, for example, 1 hour 30 minutes often being represented as 1.3 hours. Conclusions for their final time value were usually correct.

Task 3 Calories

- (a) The vast majority of students chose the correct response, with a small number choosing 660.
- (b) A common incorrect answer to this question was 15 minutes, usually from half and half again. Finding $\frac{1}{3}$ is not a well-developed skill for many. A small number thought that they were working with 660 calories an hour rather than 900, which made the question much more difficult. In the **check** quite a few either repeated their working or gave just an answer in the first part with working shown in the check space.
- (c) Students generally made good attempts at the plan for a 60-minute session in the gym. The majority managed to use all three machines at least once and usually had a total of 60 minutes. The main errors were either incorrectly calculating the number of calories for a machine, particularly if the student chose an awkward number of minutes, or failing to get the total within the range 800 to 900 as required. Quite a large number of students decided to allocate 20 minutes to each machine, but then failed to alter this when the total number of calories was shown to be 920.
- (d) In this question it was common to see 182 and no decision. A few students made arithmetical errors, and 240 calories was common for watermelon. Quite a large number just found the total of the three values given.

Task 4 Customer satisfaction

- (a) There were many correct answers to this question, with the correct mean found and then used correctly in step 2 to find the customer rating. Common errors were to ignore step 2, or to multiply 20 by an incorrect value from step 1. A small number of students found the median and then used this in step 2. A minority of students did not use the steps from the data sheet, simply stating how many customers were satisfied.
- (b) Few students used the correct values for comparison in this question, with a minority describing the trend from January to April.
- (c) Those students who attempted this question were usually successful, but there was a large proportion of non-attempts. A small number added 490 and 28 instead of finding the difference, but then knew to divide and convert to a percentage. A significant number of students wrote 550 but used 500
- (d) In this question a large number of students worked out a correct value but then made the wrong decision. For example, many compared 440 with 439 and concluded, incorrectly, that Kim could not use the survey. It was also quite common to see a similar conclusion stemming from the fact that exactly 50% of customers did not reply to the survey.

Mark Ranges and Award of Grades

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