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# Functional Skills Certificate

# **MATHEMATICS**

4368 Level 2

Report on the Examination

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4368

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## General

The four tasks provided the opportunity for students to demonstrate competence in the three process skills of representing, analysing and interpreting. Some students did not complete the paper in the time allowed.

Many students presented solutions clearly; those who do this and show a correct method are able to gain follow-through marks after numerical slips. There were a significant number of responses that were difficult to follow, particularly in multi-step questions worth 6, 7 or 8 marks.

Some students did not calculate correctly with percentages, and questions involving time were challenging to many.

Most students made a conclusion in those questions where they were asked to do so. Only a small proportion appeared to have not had access to a calculator.

Questions that were well answered included:

- using information from a table to work out vehicle tax (2(a))
- working out how many hamsters could be transported (4(e) and 4(f))
- showing that the mean was a given value (3(b)).

Questions which students found difficult included:

- working out whether an estimate was correct (2(c))
- sketching the net of a cuboid (4(b))
- solving a proportion problem (1(b))
- solving a problem involving area and percentages (4(c)).

## Task 1 Cookies

**1(a)** This was well answered.

**1(b)** Many students found this question challenging. Some subtracted 2 from 16 to work out the number of large cookies that could be made with the rest of the cookie dough and then worked with an incorrect fraction, often with denominator 14. Others subtracted 2 from 24 and gave the result as their answer.

**1(c)** There were some excellent responses to this question. Most students made some progress, mainly by working with 10 batches of cookie dough throughout. A common error was to ignore the cost of the bags. Others worked out the cost of bags using £0.2 instead of £0.02. Using only 1 bag for both the small and the large cookies was also quite common. Some added the costs to the selling price, so did not consider profit at all. A few students correctly calculated both profits but failed to make the final subtraction to show the total profit for selling only large cookies.

## Task 2 Cars

**2(a)** This was well answered, with many students selecting the correct amounts of money from the table on the data sheet and calculating correctly. A small proportion did not include the £ sign in their final answer. In the check, many made no attempt or simply repeated their calculation. To score this mark, students needed to present an alternative method or show a reverse calculation.

- 2(b)** Most students worked with the correct fuel cost from the question and the correct fuel efficiency from the table on the data sheet. Many did not attempt to reduce the fuel efficiency by 20% and some of those who did used an incorrect method. The formula for  $A$  was used quite often, but many used 62 miles for  $m$  and 65.7 for  $f$ . There was a significant number of incorrect decisions.
- 2(c)** This was not well answered. Many students attempted to calculate the total times for travelling by car, although there were often errors in these totals. Only a small proportion made any progress from there. The most common error was to work out mean times for the journeys by car.

### Task 3 Hotel

- 3(a)** Many students made at least some progress. Most success was gained by working out the total time needed to clean all the rooms and then dividing this by the time worked by each cleaner. Errors were often made if conversion of minutes to hours was attempted. Often six and a half hours was seen with no evidence of what this represented. Some students failed to account for the two 20-minute breaks or only considered one of them. A few students gave a non-integer number of cleaners as their final answer.
- 3(b)** This was answered quite well. The most common error was to divide 127 by 5 rather than by 50. A few students calculated  $0 \times 4$  as 4.
- 3(c)** This was quite well answered. Some students did not work out 75% of 168 or found 50% of 168 instead. A common error was to divide by 2.54 instead of multiplying. Other errors included the omission of at least one step. Quite a few students rounded 2.54 to 3, which meant their final cost was inaccurate.

### Task 4 Transporting hamsters

- 4(a)** This was quite well answered. Most included the correct unit. The most common wrong answer was 60 cm.
- 4(b)** This was not well answered, with only a small number of fully correct responses. The sketch of the net was often not attempted. Those who did have a net with 5 or 6 surfaces usually did not show a box height of at least 15.2 cm as required by the information on the data sheet.
- 4(c)** Many students worked out the area of the window correctly, with very few working out the perimeter. Some then worked out 25% of 112 correctly and made a decision based on this answer only, failing to also consider 16% of 112. This part had a high number of non-attempts, probably because of lack of time.
- 4(d)** This was quite well answered, although again the number of non-attempts was quite high. Many responses were fully correct, but some students rounded 29.4 up to 30. Using 0.5 for  $\frac{5}{9}$  was a fairly common error.
- 4(e)** This was well answered, with most students rounding the answer to the division down to the nearest integer. The check was answered quite well, with most students scoring the mark by showing an appropriate reverse calculation.
- 4(f)** This was answered well, although some students made no attempt, probably because of lack of time.

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

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

## **Converting Marks into UMS marks**

Convert raw marks into Uniform Mark Scale (UMS) marks by using the link below.

[UMS conversion calculator](#)