## 

# Functional Skills Certificate MATHEMATICS

4368 Level 2 Report on the Examination

4368 January 2018

Version: 1.0

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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.

Many students presented solutions clearly, but there were also students whose writing was so unclear that it was very difficult to read their responses.

Students who show a correct method are able to gain follow through marks after numerical slips.

Some students found it difficult to calculate correctly with percentages and fractions.

Very few students failed to make 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:

- completing a rota (1(a))
- working out the number of minibuses needed (2(a))
- using a mileage chart (2(b)).

Questions which students found difficult included:

- converting between units (2(d))
- solving a problem involving and using a table (3(c))
- showing that a mean was a given value (4(a)).

#### Task 1 Dance Show

- **1(a)** This question was very well answered, with most students gaining at least 3 marks. A common error was for students to be allocated to consecutive dances. Some responses included the teacher, Sue, as a dancer and others left one cell blank after making sure that each of the seven students were in two dances each.
- **1(b)** Only a few students managed to fit 10 shapes on the grid. However, many managed to fit 9 shapes and make the correct follow through conclusion. Others left too much space between the shapes and could only manage 6 shapes. Some students did not use the given scale or chose their own scale.
- 1(c) Most students could make some progress in this multi-step question and there were quite a lot of fully correct responses. A common error was to only consider the ticket sales for one night. Some did not calculate 90% correctly, with many taking 90% of 80 to be 70. It was common to see 0.6 or 60% used when working out two-thirds of an amount. Some students correctly worked out that £2088 was the income, but then made their decision about the amount of profit without showing the subtraction of £925.

#### Task 2 Minibus

**2(a)** This question was well answered, although often only the answer was given in the main part and working given as part of the check.

The check was answered quite well, with both reverse calculations and alternative methods being seen. For a reverse calculation or an alternative method to count as a check, students need first to show an original method.

2(b) This question was well answered; the most common wrong choice was 298

- **2(c)** Most students started this multi-step question successfully, with many working out the cost of hiring the minibus and the petrol. Many then assumed that each of the friends paid the same amount and divided the total cost by 14. Various other incorrect approaches were seen and only a few managed to complete the question correctly. Another common error was to fail to double the number of miles from question 2(b).
- **2(d)** This question was not well answered. Many used 10.6 feet for 10 feet 6 inches and others used 7 feet 6 inches from the example on the data sheet. Some did not use the formula from the data sheet at all and others divided 10.5 by 0.3048. Many tried to convert 3.1 metres to feet but often took 10.2 feet to be 10 feet 2 inches.

#### Task 3 Guide Dogs in training

**3(a)** Many students obtained the correct time.

The check was poorly attempted, often due to it being incomplete.

- **3(b)** This question was answered quite well, with 45 minutes often correctly worked out. Some who did not obtain the correct final answer failed to show working and therefore lost all chance of gaining method marks. A common error was to only use two of the three time periods from Sarah's journey.
- **3(c)** Many students did not accurately work out the daily amount of food that Buddy needed at the start of this question. Those who tried to work out how many grams were in two and a quarter cups often did not do this correctly. Another common error was not halving the daily amount of food to obtain the morning feed.
- **3(d)** This question was quite well answered, although using 1 kilogram as 100 grams was fairly common. Others worked out 60 × 349 correctly to give 20 940 grams but did not show how to convert this to kilograms.

#### Task 4 Wages

- **4(a)** There were some good answers to this question, but a significant number of students did not show a correct method to find the mean of a discrete frequency distribution. Some students clearly knew what they had to do, but did not obtain full marks because they did not show the full method required in a 'show that' question. It was common to see the conceptually incorrect approach of adding 7, 8, 9 and 10 with the total then divided by 4.
- 4(b) This question was answered quite well by those who attempted it. Most students used £7.50 as the wage, but some multiplied by 8 even though the step on the data sheet instructed them to divide. Methods for increasing by 20% were quite often incorrect or not seen at all.
- **4(c)** This was answered quite well, although, again, the number of non-attempts was fairly high. Some attempts were difficult to follow and common errors included omitting at least one of the number of hours per day or one of the number of days.

### 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.