



Functional Skills Certificate

MATHEMATICS

4367 Level 1

Report on the Examination

4367

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General

The paper was accessible to the target group, with all questions being attempted by the majority of students.

Some students clearly did not have a calculator, and consequently struggled with some of the calculations.

Conclusions were usually given when asked for and were mostly correct.

Task 1 Coast to Coast

- 1 (a)** The most common error was to omit the calculation involving 20, giving an answer of 285.50. Other errors included using just one 20 or using an incorrect number of 45's. The train fares were usually included correctly. There were a significant number of miscopies of £54 for £54.50. Those students making a decision usually made the correct one.
- 1 (b)** Quite a large number of students did not appreciate that the journey was continuous, with the Tuesday finish the same as the Wednesday start. Although the majority managed to calculate their intended distances correctly, some made arithmetical errors. Some divided the total distance by 2 to give the same distance for both days.
- 1 (c)** This question was answered well, although a small number of students did not include the units. The check was not done as successfully, with common errors including repeating the same method, only giving their answer in the first part and showing the method in the check and stating 'I used a calculator'.
- 1 (d)** Students often failed to show clearly how they justified their conclusion. A large number found that it was 50 km from Stanhope to Newcastle and went on to state that they should leave by 9 am. These students needed to show that $50 \div 25 = 2$ and that there are 2 hours from 9 am to 11 am. A small number of students used the wrong destinations from the table.

Task 2 Heating

- 2 (a)** This multiple choice question was answered very well.
- 2 (b)** A large number of students gave the correct answer to this question, with many of them well explained. Almost all students made a suitable attempt and were able to access some marks. Common errors included showing only the total of £300 rather than the individual amounts of £200 and £100 and making numerical errors in one or both of the ages.
- 2 (c)** This question was answered well by the majority of students. A small number arrived at the wrong conclusion, saying 'He saves £30 over 3 years', instead of saying that he will actually be £30 short of saving the full amount. A very small number of students multiplied the £450 cost by 3
- 2 (d)** Answers were generally correct, although a minority of students tried to use the perimeter.
- 2 (e)** A lot of students could deal with all the information in this question quite well, and many obtained the correct total. Some struggled to complete the question, with many stopping after finding the cost of 12 rolls using the special offer. The most common error was stopping after working out the difference between buying 4 rolls at the normal price and 4 rolls using the special offer. Other students used inconsistent numbers of rolls or used 6 as their number of rolls – mixing up the area covered per roll with the number of rolls needed. A very small number multiplied 4 by £79

Task 3 Chocolate eggs

- 3 (a)** The majority of students could follow the steps to gain the correct answer, although some made arithmetical errors. The most common of these was to omit the decimal point from 77.4 (the answer to step 2) and a few students started each line with 43. There was a small number of answers of 109.04, presumably from misreading the calculator display.
- 3 (b)** This multiple choice question was answered well, although a small number of students chose 43, the total number of eggs made.
- 3 (c)** A large number of students based their answer to this question on the area of the shelf divided by the area of the base of the box, incorrectly giving 16 boxes. No marks were awarded for this approach. Students who used the fitting method by writing, for example, $8 + 8 + 8 + 2 (= 26)$ were more likely to be successful. This is a recommended approach at this level, which might help students understand that 3.25 means that only 3 boxes will fit and that 3.25 needs to be rounded down. A small number tried to fit the box on the shelf the wrong way round, dividing 26 by 12 and 60 by 8. Some attempted to draw the boxes, but were often unsuccessful because the diagram was not drawn accurately (as stated in the question). Some students who correctly found 5 boxes in the length and 3 in the width added these values instead of multiplying.
- 3 (d)** This was the best answered question on the paper, with many students coping with the large amount of information and obtaining a fully correct answer. Less successful students often just added the costs and compared the answer to this with £70. Arithmetical errors were fairly common; for example, 87.5 was sometimes written as £87.05. A small minority of students added up all the values given in the question – costs and income together.

Task 4 Competition

- 4 (a)** The majority of students obtained the correct answer of 23 but quite a large number were unable to show a successful check. This was usually because they repeated the same calculation or did not show any method and were therefore unable to give an alternative method. A very small number of students worked out 115×5
- 4(b)** Many students answered this question correctly, either by comparing totals or by comparing means. Common incorrect approaches included considering who scored more on each of the papers, with Ellie scoring more three times and Kim only once. A small number attempted to consider the differences between the scores, but few continued to obtain a total difference of 6
- 4 (c)** A large number of answers used incorrect notation such as 1 in 5 or 1 out of 5 and a small number gave the answer incorrectly as a ratio (1 : 5). Students need to appreciate that fractions, decimals and percentages are the only acceptable ways of writing a probability.
- 4(d)** Common incorrect answers to this question were 55 and 57, with many students experiencing difficulty working with the negative points. The values -1, -2, and -4 were all seen, but many failed to include any negative points at all.
- 4(e)** Many students were unable to calculate 30% of 68 000, with a large number working out $68\,000 \div 30$ and some $68\,000 - 30$. A common method was to try to work out 30% from either 50% or 10%. However, a method for doing this was often not given and included arithmetical errors. Some students managed to get to 25% accurately but could not then scale up to 30%. A small number of students worked out 30% correctly but then did not divide by 2 for half the awards.

Mark Ranges and Award of Grades

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