

Principal Examiner Feedback

January 2012

Functional Skills Mathematics (FSM01)
Level 1

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General Comments

Most candidates attempted the majority of the questions and gave thoughtful answers to the problems set. Overall candidates found questions most difficult when the context was unfamiliar to them, the question was open-ended or multi stage. As candidates are required to show success in problem solving in real life situations these types of questions are an essential part of functional skills papers. Centres need to ensure that candidates are offered many opportunities to solve such problems in preparation for the tests.

Many candidates did show their working clearly and were consequently able to obtain process marks. Centres need to place emphasis on the meaning of the notepad symbol as some candidates are ignoring the key need to show clear working. Those candidates who provided no working or disorganised working made it very difficult to credit their efforts. Awarding credit in multi stage problems was particularly difficult when a candidate's communication was poor.

Candidates need to understand that when dealing with questions that require them to 'explain their answer', it is important to provide both a decision and a reason for it.

Centres need to place emphasis on understanding of functional language such as 'time plan,' and provide situations that allow candidates to practice the skill.

Candidates sometimes missed key elements in questions. Centres should place emphasis on highlighting, underlining or circling key information in questions to minimise the errors caused by lack of careful reading.

Candidates need additional guidance on checking. It needs to be emphasised that a repeat of the previous working is not acceptable as a check.

There is evidence that some candidates are not using calculators. Centres need to ensure that there is always access to a calculator during the test and, when preparing candidates for the test, encourage them to make use of a calculator.

Report on Individual Questions

Section A

Q1a

Some candidates did not read the question carefully. These candidates ignored the tally chart and simply added up the pay rather than linking the 2 tables together. There was evidence of manual calculation leading to the wrong answer. The lack of a calculator put some candidates at a disadvantage.

Q1b

Most candidates were able to access this task. However there was evidence of lack of checking that all constraints were met. Some put the job for Mr Lang in the morning, while others reordered the jobs successfully, but included no times in the time plan. Centres need to provide more opportunities to practise time plans with candidates. Candidates need to be encouraged to ask themselves, if they have met all the constraints and if the work they have produced is fit for purpose.

Q2a

This question was done well by many candidates. Those who made errors tended to use a calendar week of 7 days rather than the working week of Monday to Friday specified in the question. If these candidates showed their working, they still had access to 2 of the 3 marks.

Q2b

Few candidates were successful here. Many just repeated their previous working and some drew a cheque, neither of which scored the mark. A small but pleasing minority used a different method by comparing daily wages £45 with £43.80 if their initial work had been to compare the weekly wages of £225 and £219. A further valid method seen was to show a reverse calculation e.g. $225 \div 45 = 5$. Candidates need a lot of practice in choosing and using a valid checking process.

Q3

This question was often done well. Few candidates did incorrect calculations in mixed units. Many used a build up method to get as close as possible to 5000 or used division and were able to round 6.66... successfully to 6 for full bottles.

Q4

Some candidates misunderstood the first table and assumed the amounts of money were the cost of the holiday in different months. This demonstrated that the information above the table had not been read carefully. Perhaps also this shows a lack of understanding of the implications of being self-employed, a very relevant functional situation.

Section B**Q5a**

Far too often candidates gave an answer based on patterns which scored zero. Candidates need to be encouraged to recognise words such as 'likely' as a trigger for an answer based on probability.

Q5b

Candidates who were not successful here tended to work with area rather than perimeter. Centres should try to offer candidates a variety of practical problems where the candidate is required to decide whether area or perimeter should be used. Other candidates who lost marks here did not show sufficient working to justify their decision. However, a pleasing number of candidates did this question well.

Q6

Most candidates were able to gain at least 2 marks here. The decision made was not always correct, some candidates thought that a profit of £4 had been made. Perhaps rereading the question after doing the calculations, before making the final decision, would help candidates to make the correct decision.

Q7a

Candidates who were less successful here tended to ignore that the given recipe serves 6. These candidates did 30×450 and scored no marks. Most candidates who did a correct calculation were also able to include the correct units with their answer.

Q7b

Many candidates did this question very well and scored full marks. This was encouraging as there was a lot to read. There was evidence that candidates were ticking off the constraints to check that they had all been met. Those who lost a mark tended to have Cam start before 2 pm. Only the very weakest candidates produced solutions with only one helper on duty in each slot.

Q8

Those candidates who understood how to tackle percentage used a variety of methods. Halve and halve again, divide by 4, a build up method based on 10% were all valid methods seen. These candidates in the main understood the difference between '25% of' and '25% off' and quoted £65 as their answer.

Section C**Q9a**

This multi stage problem proved to be challenging. Some candidates confused the methods for area and perimeter and input 20 in the word formula, others who had correctly calculated 24 then doubled or squared it before input to the word formula. Many ignored the need to compare their answer to the 11m³ per worker requirement and then make a decision. Centres need to reinforce that m² are units of area not an instruction to square a value.

Q9b

There were many good solutions to this question. The most common error was to forget that the refreshment area must go in a corner. This was another instance where checking the constraints had all been met would have avoided an error.

Q10a

Candidates were often successful in obtaining 1 mark for adding the given values. The full mean process was seen in a pleasing number of cases. Very few candidates just wrote 155000 without working, although some showed calculations based on median.

Q10b

Candidates were often able to score 2 marks for a linear scale and plotting. Centres need to emphasise that clear labelling is required to make a graph functional. Too often, there was no mention of 'profit' in a title or as a relevant axis label. Centres should encourage candidates to use a linear scale that displays the data well. A graph which is too compact is less useful in a functional sense.

Q10c

Many candidates were able to give an acceptable reason for their answer based on either the graph or the numbers given in the table.

Pass mark for FSM01

Maximum mark	48
Pass mark	30
UMS	6

Note: Grade boundaries vary from year to year and from subject to subject, depending on the demands of the questions.

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