Principal Examiner Feedback

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Functional Skills Mathematics
Level 2 (FSM02)

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Functional Skills Mathematics Level 2

Introduction

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.'

Candidates should be encouraged to ask themselves whether a data collection sheet they have produced is fit for purpose. Rereading the demand after producing a potential outline might help here.

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.

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   Candidates used a variety of methods to calculate the total wages. Some calculated each person's wages and then totalled, others calculated the total hours before multiplying by the hourly rate. Some candidates failed to give the correct money notation after a successful calculation, ie 116.82 without the £ sign and thus lost a mark.
Some candidates were disadvantaged by the lack of a calculator.

Q1b   Candidates used a variety of suitable checking methods, including reverse calculations and estimation. However, some merely repeated the previous calculation and so lost the mark. There was little evidence to suggest that when the reverse calculation did not give the expected result candidates had looked back to see why not. Centres should stress to candidates that a different method must be used to score the checking mark.

Q1c   Candidates found part c more challenging: although most were able to allocate members of staff to time slots for each of the two pools, they failed to take into account the time constraints for individual workers. This meant that they did not give the times needed when workers needed to share time slots in order to fulfil their allocated hours. It might help if candidates were encouraged to think of who would need such a schedule and what they would be using it for: eg in this case it could be for the members of staff to know what times they had to be at work, or for the manager to check that all requirements for staffing had been met.

Q2a   This question was done well by most candidates. Those who made errors tended to miscount the 7 cm required for the base line, or tried to draw a 3D shape.

Q2b   Candidates were often unable to gain full marks here as they did not know the difference between a data collection sheet and a questionnaire. Others produced a data collection sheet but did not include all the required elements. Centres should encourage candidates to highlight the essential elements of the text before designing their sheets and then to check that the finished product is fit for purpose. Candidates need to meet a wide variety of real life situations where data collection is required and to discuss the advantages and disadvantages of different types of collection methods.

Q3   This multi stage question proved challenging for many candidates. The 2:1 ratio was often wrongly done as 3:2. Those who persevered were often able to gain marks for increasing an amount of money by 25%. Centres should stress to candidates that a blank page scores nothing but that an attempt, even if the first part is wrong, may well score marks in the second part. Centres should also provide many opportunities for candidates to deal with breaking down multi stage problems into their component parts in order to attempt solutions.

Section B

Q4a   Candidates usually performed the correct calculation but were sometimes unable to make the correct decision or just forgot to make a decision at all.

Q4b   There are many examples in real life of loyalty schemes. It would be advisable for candidates to explore a variety of these as they are likely to continue to appear on functional exam papers. As in question 4a, for some candidates, the need to compare and make a decision was a stumbling block.

Q4c   This was fairly well done although a minority of candidates were unable to decide which operation to use. Centres should stress to candidates the need to check the reasonableness of their answer.

Q5   This question was well done. Candidates who failed to obtain full marks here often chose suitable activities but failed to provide a total for their chosen activities. Underlining of key elements of the question might help candidates ensure that they have produced a full solution.

Q6   There may have been some candidates who had no access to a ruler as there were some inaccurately measured distances on the map. Candidates need to be reminded of the equipment listed on the front page of the exam paper, which they ought to bring with them. Centres might find it useful to ensure a supply of equipment is available in the exam room. This said, there were many solutions to the problem which scored at least 3 marks. Candidates need to be reminded that they should show clear methods and make a decision. It is important that the evidence shows their decisions have been made from comparable figures.

Section C

Q7   Presentation of the solution was sometimes an issue here. Some candidates failed to make it clear at what time they were arriving in a town and leaving the town. It was therefore difficult to see whether they were allowing the correct travelling time. Others ignored the key need to be in Ash at 1 pm to meet the client. Still more did a good solution but forgot to return to Cove at the end of the day. Again, highlighting key elements before attempting a solution might have avoided these problems. Candidates need to practise these types of sequential open ended real life problems. They can be set in a wide variety of contexts.

Q8   Very few complete solutions were seen. Many candidates were unable to substitute correctly into either formula. This is clearly a very weak area. Formulas on functional skills papers tend to be simple and more practice in meeting and using simple formulas would be advisable. The minority of candidates who did cope with the algebra often failed to make a comparison and so lost the last mark. If a comparison is asked for then a statement must be made.

Q9a   Candidates need to understand that statements which are comparisons need to be made and that calculations alone will score no marks. Thus 'Overall the figures for 2010 were higher than those for 2009' gains a mark, whereas '2009 total is 60000 and 2010 total is 61200' does not.

Q9b   There were many good examples of graphs. However, practice in choosing a suitable scale to plot given figures is needed. Candidates also need to be reminded to label their graph fully as the label on the vertical axis was often missing.

Q9c   Candidates who answered 'yes' did not always supply enough supporting evidence to justify the decision. Although only a simple percentage calculation that they might have done mentally was required to verify the increase, there needed to be evidence of the process they were using to arrive at 1200 from two different methods.

Pass mark for FSM02

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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