Examiners' Report

November 2015

Pearson Edexcel Functional Skills Mathematics Level 1 (FSM01)

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General Comments

Most candidates attempted the majority of the questions. A number of candidates produced some excellent and thoughtful responses. However, judging by the blank pages, some candidates had clear gaps in their knowledge. Section C was found to be the most challenging.

Candidates found questions most difficult when the context was unfamiliar to them, particularly in open-ended or multi-staged questions. Candidates are required to show success in problem solving in real life situations. Centres need to ensure that the candidates are offered opportunities to solve problems in the preparation for this test.

Some candidates showed clear working, and consequently were able to access process marks. Some candidates' work was either exceedingly disorganised or not present; it is very difficult awarding credit in this situation. A number lost the final mark by not drawing the final conclusion despite having successfully completed all the calculations they needed.

There is an emphasis on the understanding of functional language such as time, units, and reading graphs. This was sometimes not well done. Candidates should be encouraged to highlight key data in questions in order to help them organise their work.

A number of candidates frequently copied down incorrect information from either the question itself or their own answer.

It was pleasing to see that a number of candidates are gaining marks on checking answers. It is also clear that some candidates do not understand that a suitable check is a reverse calculation, estimation method, or use of a different route through the problem. Three marks were available on this paper for demonstrating this skill. Centres should consider incorporating checking methods into each task as they practise so the candidate becomes familiar with carrying this out as a routine skill and understand the relevance of a valid check.

Centres should be congratulated on either providing or insisting that calculators are used. This can help with accuracy and certainly with time management. It was only rarely that pen and paper methods were used for the harder calculations. Unfortunately it was in easier calculations, where the calculator was not used that careless errors were made. Candidates are advised to check even simple calculations with a calculator.

Section A

Q1) The majority of candidates attempted this question. Many students answered effectively; displaying each step towards an accurate answer of 6 boxes. Those who did not gain full marks seemed unable to get beyond '5packets over 14 days totals 70'.
Some candidates misinterpreted the question, multiplying packets by packets was a common error i.e 12x5 = 60 and also 14/5 Other candidates started 12/5 =2.4 which was a correct process but then interpreted this as 2.4 boxes and then multiplied by 14.

Q1b) Generally answered well. Common errors were students using 500 instead of 5000 or giving no - a wrong decision.   Candidates who calculated 14 days of 350g = 4900g and compared this with the 5000g were more successful at arriving at the correct decision.   Those who divided the total amount of 5kg by the amount required each day (350g) and used consistent units to arrive at 14.2 were more likely to misinterpret their answer.

Q1c) The majority of candidates could identify the correct angle.

Q2a) Generally answered well with most candidates correctly identifying one of the two trains that would arrive with enough time allowing for the 40 minutes. Candidates should be encouraged to show all of their working. Some showed the correct arrival time and added 40 minutes correctly stating the arrival time at Tom's house but did not answer the question stating the departure time even though it was clear they understood the question.
Centres should practise planning day trips out to say a theme park using coach and train timetables.

Q2b) Many candidates struggled with this question due to mis-reading 'of' as' off' and therefore taking the calculation further and subtracting 34.60 from 103.80Some candidates used 0.3 or 0.33 as one third which lost the accuracy mark.
Many lost a mark by not using correct money notation. Centres need to focus on the use of correct money notation (especially 2 decimal places), possibly by doing a shopping list activity using shop catalogues. It was pleasing that many then multiplied by 3 as a method of checking. Many candidates lost this mark by not checking their work.

Q2c) The majority of candidates were awarded full marks. Those who lost a mark did not subtract correctly to get 51p – getting 50p instead. Some candidates did not give a decision despite showing all the correct working.

Section B

Q3) Nearly all candidates were able to use the function machine correctly and then follow this up with the inverse operations as a valid method for a check (the best reverse calculation response out of the 3 sections). Unfortunately some candidates still think repeating the work they have gained credit for in part (a) is a valid check.
Some candidates did not make a conclusion; if a question asks 'is Magda correct' then a conclusion must be provided.

Q4) Not making a correct decision was the main reason for loss of marks in this question.
Candidates should be encouraged to give an accurate answer. Although the vast majority did this some rounded the answer i.e 47/5 = 9.
A small number of candidates calculated the median rather than the mean but this was not as common as it has been in other exam series. Learning a nursery rhyme to remember which average is which could help candidates' memory recall. Try searching the internet for "Hey diddle diddle, the median's the middle..."

Q5a) As with previous exam series, not using a linear scale and missing labels lost marks for the majority of those candidates who failed to achieve full marks. Centres could try getting candidates to create a mnemonic for labels, plotting and scale to act as a check list that they could write at the top of the page for a graph question. Many candidates lost credit by not labelling axes, the best responses included either a title for the graph or clear labelling of the axes and clear plotting either in the form of a bar chart or clear indication of the points. A very small minority failed to use the graph paper provided.

Q5b) Interpreting the data in this question was done extremely well with the majority of candidates correctly noticing the increase year on year. A few only focused on the numbers and tried to calculate the mean over the years but gave no written explanation to accompany this working.

Q6) Most candidates were able to find the correct price for 'Tableandchairs.com' (188) but many candidates failed to take into account the third pack being half price for 'Furniture4u' and comparing prices of 168 and 188 was not uncommon. Other candidates calculated 168 correctly but halved this value 84 and added this to 168 instead of halving the 84 first. When candidates did have two comparable values nearly all made the correct decision which meant some candidates gained credit for following through their working.
Centres could use shop offer flyers to practise calculating the costs from special offers.

Section C

Q7a) Nearly all candidates were awarded at least 1 mark out of the 2 available. In cases where full marks were not awarded, it was usually because the wrong size rectangle had been drawn or because the placement of the diagrammatic viewing area was not drawn with an edge alongside the event area.

Centres could practise drawing objects using scales by drawing floor plans and placing furniture (using various scales) in a bedroom. Candidates get engaged when they can choose the furniture themselves using catalogues. Then introduce restrictions such as radiators and windows.

Q7b) This question was answered better than perimeter questions in previous series.

Many candidates were awarded full marks. A number found the area and then checked their calculation gaining the check mark despite showing no evidence of understanding of perimeter.

Unsuccessful candidates either failed to state a decision and/or did not show a valid reverse calculation.

Q7c) Some candidates incorrectly subtracted 50 from 110 to get a wrong answer of 60 rather than divide by 2.

Q8) Many candidates struggled to deal with ratio and 24/5 = 4.8 was often seen. Another common error candidates made was to divide by 5 rather than 6. The best responses were when candidates realised only 4 litres of cordial would be needed to make the 24 litres of orange drink given in the question and communicated this effectively.

Centres could encourage candidates to begin by drawing boxes to represent each section of the ratio; this will help candidates to visualise the total number of parts and then allow them to begin division calculations.

Q9) Candidates really struggled to combine a record sheet including individual races with points scored. The best answers, and there were many, showed great clarity in tabulating the data; simple designs to input data and cells for totals. Others failed to have cells for totals. Many did not carry on from their tabulation to processing the data and totals and others, the opposite; processing all the data effectively but without a record sheet to lead towards this.

Teaching could use a quiz or competition with various rounds to enable candidates to recognise the need for a simple layout that would allow for results to be calculated quickly. Spending time showing efficient and wrong data collection sheets (possibly from board games with multiple rounds?) and getting candidates to explain why they are not efficient would be time well spent.