

Examiners' Report

October 2015

Pearson Edexcel Functional Skills
Mathematics Level 1 (FSM01)

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General comments

In this paper many candidates attempted and gained marks in the majority of the questions. Calculations relating to substitution in a given formula, money - including working within a given budget and best buys, scale drawing and ratio were often successfully answered. The multistage problem relating to the amount of money raised by the sale of tickets was successfully attempted by the majority of candidates. However for the second multistage problem involving the number of tiles needed to cover a wall a significant minority of candidates were unable to progress beyond the first steps required. Centres would be advised to provide their candidates with the opportunity to practice working through multistage problems involving a wide range of skills and contexts during exam preparation if possible.

It was disappointing to note that the majority of candidates failed to show a check on their working when requested to do so. There were 3 marks available in this paper for demonstrating a valid check on working; those who failed to do so were disadvantaged. Centres would be advised to remind candidates of the various ways their calculations can be checked and of the importance of checking all their calculations to avoid errors. It is important to note that a repeat the original calculation does not constitute a check and that the check needs to be functional. Centres should remind candidates to show all stages of their working, even when they are using a calculator, in order to avoid losing marks for process. Similarly candidates need to be reminded to present answers involving units with the correct unit for the figure they have given in order to be sure of gaining the maximum marks available. Many candidates often failed to gain a final mark as they did not provide a negative or positive decision or a conclusion after completion of their calculations. A minority of candidates did not use a calculator for their responses to this paper which was a distinct disadvantage.

Section A

Q1a This first question required candidates to calculate the amount of water to be added to a given quantity of screen wash using a given ratio. It was pleasing to note that the majority of candidates could correctly calculate the required quantity but many lost the second mark as they failed to give the units of the numerical answer.

Q1b Many candidates were able to correctly work out the latest start time for a journey in order to arrive at 1:30 pm given the time of activities to be completed during the journey. Some lost the final marks as they failed to use a valid time format for their answer. A significant minority failed to show any working and having made errors in their calculations were awarded no marks. Centres would be advised to remind candidates to show their working for all questions to ensure they gain the maximum marks possible.

Q2a It was pleasing to see that the majority of candidates were able to work out the cost of fuel for 4 weeks, find a third of their answer and correctly compare with the given value of £100. A minority unsuccessfully attempted to use percentages to find a third, usually finding 30% instead, and thus lost all marks. A significant majority of candidates lost the final mark as they failed to show a valid check on their working.

Q2b The majority of candidates were able to correctly compare the cash cost of buying a car with a payment plan of a deposit and 36 monthly payments though a few added the deposit to the monthly payments before multiplying by 36 months resulting in an extremely high cost for their answer. Centres would be advised to encourage candidates to look at the sense of their answer, rather than just completing their calculations without giving a thought as to whether the answer is reasonable, in order to avoid such errors.

Q3 Many candidates failed to make a reasonable attempt at this question finding it difficult to read values accurately from the given graph but most were able to correctly calculate the mean from their values thus gaining 2 of the 4 marks available. Unfortunately a significant number lost the final mark as they failed to make the comparison of the mean of the price of fuel in the local garages with the UK average price. It is important to emphasise to candidates the need to clearly identify the question that is being asked, to ensure the answer addresses this, to avoid losing marks.

Section B

Q4a This next question required candidates to find dates for a rehearsal given a range of availabilities for the people concerned. Most candidates managed to identify correct dates although a few missed the fact that they needed to avoid 2 rehearsals in the same week. A few didn't realise that all 4 people needed to be there for the rehearsals so gave each person different dates to rehearse and thus lost both the available marks. Centres should advise candidates to clearly identify all criteria to be met in a question possibly by using a highlighter.

Q4b Candidates were required to calculate the cost of hiring a village hall for a given activity and time period in this question. Nearly all candidates were able to calculate this correctly but many lost the final mark as they failed to show a valid check on the working. A few also failed to select the correct cost for the type of booking needed and thus lost all marks. Again it is important for candidates to clearly identify the criteria to be used in a question to avoid losing marks unnecessarily.

Q5a It was disappointing to note that many candidates were unable to work with the number of seats which could fit into a hall given the dimensions of the hall and the chairs. The most successful approach involved finding the number of seats in a row and using this to find how many seats could fit in the hall. Although on this occasion full marks were awarded for a valid decision and the correct number of chairs, candidates should be aware that marks are often awarded for specific stages of a calculation especially when a conversion to common units is necessary, as was the case in this question.

Q5b It was very pleasing to note that the majority of candidates were able to fully and correctly complete this multistage question which involved calculating the amount of money raised from given ticket sales. A few lost the final mark because they failed to write a pound sign with their answer. Candidates should be reminded to include the units with all answers where this is relevant. Other errors which were occasionally seen were a failure to use half price for children's tickets and to use an incorrect method to find the number of children's tickets sold.

Section C

Q6 This question required candidates to find the cheapest cost for a bathroom range using the cost of given items. It was pleasing that most candidates managed to answer correctly; however a few lost the penultimate mark for failing to give their answer to 2 decimal places. It is important for candidates to remember to give all money answers in a correct format. Most candidates lost the final mark as they failed to show a valid check.

Q7a The most successful approach to this tiling question was to find the number of tiles which were need along each dimension of the wall and then multiply them to find the total number of tiles needed. Many candidates also successfully divided the area to be tiled by the area of one tile to reach this answer. The majority of candidates then correctly found the number of boxes of tiles which would be needed. However a significant number did not complete this final step thus losing two of the marks. Some candidates were disadvantaged by not using a calculator to work with the fairly large numbers involved in the area method. At this level candidates should be proficient in the use of a basic calculator and encouraged to use a calculator for their calculations.

Q7b It was pleasing to note that this question was successfully answered by nearly all candidates who were able to correctly substitute into a simple word formula and hence calculate the number of tiles needed from a given estimated figure. Unfortunately many lost the second mark as they failed to give a negative decision with their answer.

Q8 The first part of this final question required candidates to draw the space for a toilet and a basin to scale on a given grid to meet a range of constraints. The majority of candidates were able to correctly position and draw the toilet space but many were unable to draw the basin space correctly, misunderstanding the sentence 'It needs a space 75 cm square'. Often this was incorrectly drawn as a rectangle 75 cm in length and these candidates gained no marks for this question. Understanding basic mathematical terminology is important and it would be helpful for candidates to revise the meanings of such mathematical phrases during exam practice.

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