

Examiners' Report

November 2015

Pearson Edexcel Functional Skills
Mathematics Level 2 (FSM02)

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General comments

This paper proved accessible to many candidates who attempted and gained marks in the majority of the questions. Calculations relating to currency conversion, money - including savings and interest on a loan and working out the materials for a training pack were often successfully answered.

The multistage problem relating to the cost of driving children to school was successfully attempted by the majority of candidates. However in the multistage problem that involved the use a given formula to calculate the amount of wood needed, to build a quarter pipe for skateboarding, many candidates were unable to convert between metric and imperial units using the given conversion factor and a significant minority were unable to substitute given values into the quoted formula.

Centres would be advised to provide their candidates with the opportunity to practice working through multistage problems involving conversion factors and the use of formula in a wide range of contexts during exam preparation if possible.

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. 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 savings that could be made if children walked to school rather than being taken in a car. It was pleasing to note that the majority of candidates could correctly calculate the savings but many lost marks as they failed to convert correctly from pence to pounds and a significant number of candidates failed to show a check of their working. Centres would be advised to remind candidates of the importance of re-reading the question to ensure it is fully answered.

Q1b) Many candidates were able to correctly work out the percentage of parents who found bad traffic stressful during the school run and correctly plot this value on the given chart. 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 produce a timetable for the walking bus using the information provided. A common mistake made by a minority of candidates was to miss the second road crossing between A and B. Candidates who were unsuccessful failed to engage with either the road crossing times or the waiting times at the bus stops. It is important to emphasise to candidates the need to clearly identify all the information that is provided to ensure the answer has included all constraints to avoid losing marks.

Q2b) It was pleasing to note that the majority of candidates were able to correctly work with the given direct proportion to find the number of adults needed to accompany 12 children in this one mark question.

Q2c) Many candidates failed to make a reasonable attempt at this question finding it difficult to create a functional rota which met the given criteria. Although the majority of candidates attempted to create a table many did not provide spaces for the names of the adults to be added and wrote descriptions of the tasks to be undertaken instead. It is a functional skill to be able to draw up a rota with people allocated certain tasks on different days and the inclusion of such a task in a range of contexts would be useful exam practice for candidates.

Section B

Q3a) This next question required candidates to find the saving between buying a complete skateboard and the total cost of buying the individual items including a discounted price for one of the items and assembling the skateboard oneself. It was pleasing to note that the majority of candidates were able to calculate the saving correctly. Some marks were lost due to the use of an inaccurate method of working out the percentage often based on the 10%, 5% etc. method. Candidates should be advised to use efficient and accurate methods to calculate percentages at this level.

Q3b) Candidates were required to compare the cost of buying a helmet from the USA and from England using a given conversion factor between \$(US) and £ (sterling). Nearly all candidates were able to correctly convert between \$ and £ but a significant minority lost marks as they failed to justify their answer e.g. buy from the USA because it is cheaper, and disappointingly very few candidates showed a check on their calculation thus losing the final mark. There were 3 marks available in this paper for demonstrating a valid check on working; those who failed to do so were disadvantaged.

Q4) It was disappointing to note that many candidates were unable to substitute into a given formula and a significant minority failed to attempt this question at all. Although to gain full marks a conversion between feet and mm was required, 3 of the 5 available marks could be gained by substituting a given value into the formula provided. Practice at substituting values into a given formula and evaluating the resulting calculation would be useful preparation for the exam.

Q5) It was very pleasing to note that the majority of candidates were able to fully and correctly calculate the number of screws required to fix a ramp to a frame although some lost marks through counting the corners twice and a few incorrectly deducted the corner screws. Those who drew a diagram were often successful.

Section C

Q6a) This question required candidates to compare the given interest rate of 15% with the actual interest paid and the majority of candidates were successful. A minority found the interest on the total sum paid rather than on the loan taken. A significant minority found the total paid and the cost of 15% interest but failed to show comparable figures thus losing marks and some lost marks through failing to give the units for their answer. Calculating interest payments on a loan is a very useful life skill and Centres would be advised to provide practice in this for a range of contexts.

Q6b) It was disappointing that few candidates were able to work out the missing value needed to make the average data used per month 500 MB. At this level candidates are required to work with and manipulate averages and not just find the average of a set of figures. Exam practice in finding a missing value would be helpful to candidates. Most candidates also lost the final mark as they failed to show a valid check.

Q6c) The majority of candidates were able to select the correct tablet computer using the given requirements for this 1 mark question.

Q7a) The next question required candidates to check if Mia had sufficient supplies available to make up 30 training packs. The majority of candidates correctly compared the amount of paper and dividers but many failed to check that there was sufficient card for the front and back covers thus losing marks. It would be helpful for candidates to clearly identify the information to be used in a question, possibly using a highlighter, to avoid losing marks unnecessarily.

Q7b) It was pleasing to note that most candidates were able to find the probability required for this question. However some lost marks as they did not present the probability as a percentage, fraction or decimal but incorrectly used a ratio. Centres would be advised to remind candidates of the correct method for presenting probability values.

Q7c) In this final question candidates were required to compare results using a given graphical representation of a survey completed on two separate days. The majority of candidates were able to obtain full marks for this question but some lost marks because they failed to use comparative words but merely quoted the figures shown on the chart. Candidates could benefit from a reminder of the vocabulary which can be successfully used to make comparisons.

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