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# Principal Examiner Feedback

## November 2013

Pearson Edexcel GCSE
In Mathematics Modular (2MB01)
Unit 2: (5MB2F_01) Foundation
(Non-Calculator)

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# GCSE Mathematics 2MB01
# Principal Examiner Feedback – Foundation Paper Unit 2

## Introduction

Overall candidates did very well on this paper. They were able to access most of the questions. For the QWC questions clear working out was given and candidates showed confidence in their answers. There was little evidence of the weak arithmetic on this paper.

Candidates were able to secure
-Full access to most questions
-Display working in a sensible manner

They would have benefitted from a final check that the full question had been completed.

## Report on individual questions

### Question 1

This was an accessible question for most candidates. It allowed candidates a positive start to the paper. Some pupils tried to show all sets of parallel lines but generally approached the question in a sensible manner.

### Question 2

This question was also well answered. The majority of candidates were able to carry out the correct calculation and then interpret it to give a sensible answer.

### Question 3

Another well answered question, with most candidates able to state the correct number for the type requested.

### Question 4

Part (a) was well answered with clear drawings shown.
In Part (b), candidates had more issues with this part of the question. Many failed to simplify the fraction fully.

### Question 5

Both parts of this question were well answered. This simple algebra question was accessible to almost all candidates.

### Question 6

This question required some thought. Many candidates approached it by adding all 3 items and seeing if their total was less or more than £8, often concluding that they were 19p short. There was a good use of units and most candidates coped well with money notation.

**Question 7**
All parts of this question were well answered. Candidates were able to deal with the information shown in the picture and interpret it effectively.

**Question 8**
Part (a) was not always answered correctly suggesting that pupils could not always interpret which angle was required. More work on angle descriptions would be beneficial for candidates.
Part (b) proved easier for some candidates and they were able to calculate the value of the unknown angle. The reason was also given by many candidates.

**Question 9**
Part (a) was well answered by many with just a few arithmetic errors seen.
In part (b), a variety of approaches were seen. Many candidates calculated the cost for 6 days but a comparison was required for full marks and this was not always seen. Others doubled the answer to part (a) and left this number as their final answer, again no comparison was offered.

**Question 10**
In part (a), accurate drawings were usually seen.
Part (b) was well answered and candidates usually continued the pattern successfully.
In part (c), some candidates just stated 21 as the answer to this part and did not fully appreciate the requirement to interpret the question and half the number of grey squares to find the pattern number. Successful approaches seen included a continuation of a table, a diagram drawn and a clear division by 2 and addition of 1.

**Question 11**
In part (a), the arrow was often accurately drawn.
In part (b), candidates had more difficulties with this part of the question. Some struggled to deal with the fraction and did not convert to a decimal correctly. Most realised the need to double but were not always able to do this accurately. The conversion from kg to grams was attempted by many but some thought there were 100g in a kilogram and this again led to lack of accuracy. A common error was to finish the question early by failing to subtract 0.8kg from their 1.5kg answer.
With all this in mind it was common for only part marks to be awarded.

**Question 12**
Part (a) was well answered question, with several different options possible.
Part (b) was more difficult for some candidates but many correct answers were still seen.

**Question 13**
As a QWC question clear communication was required. The successful candidates worked through the question using fractions and finding the special offer price of one shirt, then doubling this and finally comparing their value to £13 with a clear conclusion given.
An unusual method seen on a number of occasions was to convert the fraction into a decimal and then proceed with decimal multiplication. This method was rarely, if ever successful. Some candidates rounded to 0.3 which is not one third, others rounded to 0.33 and others rounded to 0.333 or 33.3%, these final roundings led to complicated calculations which most found too difficult to carry out. Centres should encourage candidates to work in fractions where it is appropriate. They should also ensure that candidates are aware of the difference between one third and three tenths.

**Question 14**
For this question there were a good proportion of fully correct answers. With others scoring method marks for calculating $70^\circ$ as the other internal angle of the triangle but failing to finish the question correctly.

**Question 15**
In part (a), many candidates successfully multiplied out this expression.
In part (b), a good number of candidates attempted this question. Unfortunately some misinterpreted and tried to find a numerical value for $x$. Centres should ensure that candidates fully understand the term expression and are happy that final answers can include $x$.
A common error was to designate the unknown length DE as $x$ and not try to find it in terms of the $x$ already given as length AB this double use of $x$ led to confusion.

**Question 16**
Part (a) was well drawn by some. A few errors in one length were seen but most attempted a drawing.
Part (b) was not so well answered. Candidates were confused and some apparent random calculations were seen. The most successful approach was to count the number of cubes in the cuboid and multiply the 1,2 and 3 together rather than to approach the problem by the use of volume.

**Question 17**
The method to find the area of the field was within the grasp of many candidates. Occasional arithmetic errors led to inaccurate area answers. Centres should continue to work on basic arithmetic.
The most common error was to not answer the question asked but to end with just the area found. Of those candidates who tried to find 90% of the area most were successful. Centres should encourage candidate to reflect and check that their final answer fully answers the question posed.

**Grade Boundaries**

Grade boundaries for this, and all other papers, can be found on the website on this link:
http://www.edexcel.com/iwantto/Pages/grade-boundaries.aspx



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