

Principal Examiner Feedback

July 2011

Functional Skills Mathematics
Level 1 (FSM01)

Edexcel is one of the leading examining and awarding bodies in the UK and throughout the world. We provide a wide range of qualifications including academic, vocational, occupational and specific programmes for employers.

Through a network of UK and overseas offices, Edexcel's centres receive the support they need to help them deliver their education and training programmes to learners.

For further information, please call our GCE line on 0844 576 0025, our GCSE team on 0844 576 0027, or visit our website at www.edexcel.com.

If you have any subject specific questions about the content of this Examiners' Report that require the help of a subject specialist, you may find our **Ask The Expert** email service helpful.

Ask The Expert can be accessed online at the following link:
<http://www.edexcel.com/Aboutus/contact-us/>

July 2011

Publications Code FC028929

All the material in this publication is copyright

© Edexcel Ltd 2011

Functional Skills Mathematics Level 1

Introduction

From the evidence presented in this paper it is clear that some candidates:

- are not using calculators effectively to process arithmetic.
- may not have access to calculators whilst sitting the paper.

By their very nature, functional questions involve arithmetic operations and data handling techniques. Candidates did encounter problems addressing some of the questions because they appeared to lack a calculator.

In order to award marks for process, a key element in functional skills examinations, the candidate should show working and a clear methodology.

It is not the case that correct answers always earn full marks: the process by which the answers have been arrived at attracts the majority of the marks.

Candidates need to be encouraged to read questions very carefully in order that they are able to handle the conditions and constraints that functional mathematics questions provide.

Organisation of the work is crucial for the award of marks: disorganised working spread across the working space attracts few marks simply because the process followed is not clear. This is particularly important in functional skills exams because candidates are having to answer open ended questions and need to describe the process through reasoned mathematics and relevant argument. Teachers need to place emphasis on the meaning of the notepad symbol as some candidates ignore the key need to show clear evidenced working.

Overall, candidates found questions most difficult when they were not directed: that is, the more open-ended type questions. Centres need to offer opportunities for solving these types of problem in preparation for examinations in functional skills.

It is evident that careful reading of questions and use of required detail is essential when aiming for high marks. Techniques such as underlining, highlighting or emphasising key words or phrases in each question was evident in the work of high scoring candidates.

In functional questions, the facility to reflect on whether the final answer is reasonable is important. Candidates need to reflect on whether the final answer is reasonable in the context of the question.

Questions sometimes require a candidate to make a decision as well as process arithmetic. Candidates need to be aware of this and remember to indicate what decision needs to be made.

Report on Individual Questions

Section A

Q1(a) Candidates should have found the total length of the four pieces of wood required to make the bookcase. The total length of the planks available would then be explicitly compared and a decision made. The majority of candidates did not make comparisons. A significant minority made errors in attempting to find the total length needed for the bookcase. Many used only 1 plank or missed out a side or shelf.

Q1(b) Candidates were not as successful as they might have been drawing the table on the grid. The table frequently had wrong dimensions, 1 by 2 being the most common error. Placing the table was more successful.

The majority of candidates correctly placed the bookcase and were able to draw a correctly sized rectangle.

A small but significant number of candidates drew a plan of their own in the space below the demand of the question and proceeded, with limited success, to draw the sofa, table and bookcase.

Q2(a) A minority of candidates were not able to coordinate the instruction that the window blinds needed to be longer and wider than the window with the table of information on the adjoining page.

Q2(b) A majority of candidates did understand that the cost of two window blinds involves a half price. However, the arithmetic involved was not as successfully processed as it might have been.

It appeared that some candidates were not using a calculator to process the arithmetic. Many candidates were not able to round the decimal answers appropriately for money.

Q3 This question was successfully answered by the vast majority of candidates. A minority of candidates adopted the approach of long multiplication to find the total cost per drill hole, with limited success.

Q4 Finding the shortest route requires two separate processes. Firstly, the shortest route must be clearly communicated and secondly, the shortest route needs to be established by summation of each individual stage.

Candidates should ensure that both of these processes are completed successfully.

Section B

Q5(a) The majority of candidates were able to use the word formula to decide if the rabbit has enough space. The question requires a decision to be made. A minority processed the arithmetic correctly but failed to indicate a decision clearly.

Q5(b) The question requires candidates to maximise the weight of rabbit food. It was apparent that some candidates did not link the choice of water bowl to the task of maximising food weight, thus choosing the 900ml bowl. Most candidates were able to communicate their rabbit food bag choices and coordinate with the budget available. Few successfully completed the process of optimising for the greatest weight .

Q6(a) The diagram indicates that the length of fencing surrounding the space for rabbits needs to be calculated.

Few candidates successfully found the length of fencing in centimetres. The metric conversion should be known. Although most candidates indicated that 100cm = 1m, some did not use the conversion.

Q6(b) The straightforward processing required was successfully completed by candidates. If candidates wish to round their answer to part (a), the rounding needs to be appropriate. Rounding down, in this instance, does not lead to a functional answer. There will not be enough fencing to completely surround the space!

Q7 A significant minority of candidates did not find the range. In addition, some found the median number of baby rabbits in place of the mean. Only a few checked Cathy's assertions.

At level 1, candidates need only to be familiar with a small number of statistical calculations.

Section C

Q8(a) The placing of several crosses in both Tablet A and Tablet B columns was common. Mr Jenkins would have taken too many tablets each day! Some candidates were not able to tackle the context of this situation and handle time in this way.

Q8(b) The question was successfully completed by the majority of candidates. However, some candidates communicated their answers poorly.

Many candidates circled several dates, including the correct ones, without differentiating between them. In a functional context this will not suffice.

Q9 This was a challenging question for candidates.

A significant minority could only handle the '£2.99 off' discount voucher.

Some candidates attempted to break 25% into 10% and 5% chunks, many making arithmetical errors.

Only a minority of candidates attempted the '1/3 off' discount voucher. The processing of 1/3 as 30% was common.

Q10(a) Candidates are confident at level 1 in designing data collection sheets.

Only a small minority misunderstood the necessity of providing input opportunities for Shirley to record information.

Q10(b) This was a challenging question for candidates. Some were not able to access the question. The arithmetical demands of the question together with the level of reasoning required ensured that only a few candidates were able to argue correctly that Lindon had met his target.

Candidates who made progress processed 1/4 more effectively than the 'one out of three' for people who waited less than 5 minutes.

Pass mark for FSM01

| | |
|--------------|----|
| Maximum mark | 48 |
| Pass mark | 29 |
| UMS | 6 |

Note: Grade boundaries vary from year to year and from subject to subject, depending on the demands of the questions.

Further copies of this publication are available from
Edexcel Publications, Adamsway, Mansfield, Notts, NG18 4FN

Telephone 01623 467467
Fax 01623 450481
Email publication.orders@edexcel.com
Order Code FC028929 July 2011

For more information on Edexcel qualifications, please visit
www.edexcel.com/quals

Pearson Education Limited. Registered company number 872828
with its registered office at Edinburgh Gate, Harlow, Essex CM20 2JE

Ofqual




Llywodraeth Cynulliad Cymru
Welsh Assembly Government

