

Principal Examiner Feedback

November 2011

Functional Skills Mathematics
Level 2 (FSM02)

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/>

November 2011
Publications Code FC029774

All the material in this publication is copyright
© Edexcel Ltd 2011

Functional Skills Mathematics Level 2

Introduction

- Some very good responses were seen
- It was clear that some candidates are attempting to take the examination without having a calculator. This puts them at an immediate disadvantage. On the other hand, candidates that clearly do have a calculator sometimes resort to written methods (for example, using a build up method for percentages) whilst this approach could still score full marks, too often arithmetic errors mean that marks cannot be awarded.
- Candidates do need to ensure that they answer the question asked, particularly when there is a decision to be made.
- Candidates need to ensure that they show all their working. In Functional Skills, marks are awarded for the correct process skills so the correct answer alone may not always automatically get full marks.
- Candidates also need to ensure that their final answer is realistic and, when appropriate, is given with the appropriate units.

Report on Individual Questions

Section A

Question 1(a)

This question was handled well by the majority of candidates. The predominant method was to build up from 22, 44 etc although some candidates had problems multiplying by $5\frac{1}{2}$ and just multiplied by 5. Some candidates attempted to follow on from looking at 20 but seemed unable to perform subsequent processing.

Question 1(b)

A disappointing aspect of this question is the lack of ability in candidates in converting from grams to kilograms and vice versa. Too often $1\text{kg} = 100\text{g}$ or $12.5\text{kg} = 1250\text{g}$ was given losing both the marks for conversion and for the final accuracy. The last mark was often lost due to lack of rounding the answer to the nearest whole number, giving 2.43 bags of clay instead of 3. The question differentiated well. As in the previous part a build up 12.5 kg to reach 30.4 kg was popular. Weaker candidates could not cope with the demands of processing division within a multi-step problem.

Question 1(c)

Some candidates completed this question to a very high standard. A significant number of candidates did not engage with the questions fully and very often lost marks on calculating percentage and profit. There were a few candidates that could work with profit but made mistakes with finding the costs, e.g. they added 14.46 and 6.50 and then multiplied or divided by 16. Working with percentage was answered well using a variety of techniques including multiplying by 0.75 or 1.75 or finding multiples of 10%. However, candidates who chose to use a build-up method to find a percentage must ensure that they show their method. For example showing that to work out 10% they are dividing by 10. Too often, candidates write down a percentage with a wrong number and no indication of how they obtained their number. A number of candidates forgot to find the profit and stated just 75% of their money calculation.

Question 2

Most candidates were successful with this question and got full marks. However, some candidates failed to read the instructions or failed to interpret the scale drawing. In isolated examples marks missed were either for incorrect position or one dimension (mostly width) being off by one square, this generally occurred where the height was used instead of the depth. A minority of candidates misunderstood the question and attempted to draw a 3-D view rather than a plan view.

Question 3

The graph plotting was generally done correctly and the scales were generally correct. However, some candidates used inappropriate scales, putting the values from the table on the main gridlines rather than using a linear scale. The most common error was failing to put a label on the y axis. A variety of graphs were used from composite bar charts to simply plotting the points. Simple bar charts were the most popular.

Section B

Question 4(a)

Most candidates answered this question and found the question quite accessible. Some answers were based on the time of arrival as opposed to how long Tim had been working. Candidates are not consistent in their approach in working with time, as most mistakes were made when adding 0.5 hours to 60 minutes (inconsistent units). Also more practice is needed when adding on to 45 minutes and the remaining time added goes over the hour.

Question 4(b)

This was well attempted but a number of candidates thought that an answer of 15hrs 15 mins meant Tim was wrong or failed to give a decision. Some candidates, after stating the time of arrival in 4a, then went on and answered this question correctly using their time of arrival. There was evidence of some confusion as to the conversion between decimals and minutes. A minority of candidates struggled with working in base 60 and provided answers with 75 minutes, as opposed to aggregating the hours. This caused candidates addition problems when adding the 5.5 and 3 hours.

Question 5(a)

In the main candidates were successful at answering the question, most marks lost were due to either rounding too early or rounding the answer resulting in accuracy marks being lost possibly due to calculators not being used. A minority of candidates divided the amount of the allowance spent by the hourly rate. Money notation was not tested here but many forgot the £ sign. Candidates should ensure that units are written with all answers when appropriate.

Question 5(b)

There were some good answers to this question. The most common errors with this question were not showing their calculation of the correct percentage banding or incorrect methodology in calculating the percentage, often dividing by 7 and multiplying by 100. Many candidates failed to calculate $\text{£}2480 / 320 = 7.75$ as their first step. 9% seemed a common percentage used. Although this was a calculator paper many candidates still attempted to calculate 7% by doing 5% and then 1% and 1%. Often this method, when attempted, was done incorrectly. A number of students got the answer of 21.7 or 21.70 and then said Susan was wrong without justification, for example, they get £1.70 more than £20.

Question 6(a)

Most students gave their answer in dollars although some candidates stopped once they had found '29.52'. Most candidates were happy with the concept of working with a foreign currency and provided the dollar sign or pound sign with their answer.

Question 6(b)

Many candidates did not approach this question or misunderstood the context of the word "check" and drew a cheque! A common mistake was to repeat a previous sum.

The candidates who provided a reverse calculation were most successful though a few worked in the alternate currency and then checked by converting back.

Section C**Question 7(a)**

Most candidates were able to find the correct cost from the table. A few candidates managed to pick a wrong figure from the table presumably because they were rushing and failed to check their work.

Question 7(b)

A number of candidates did parts of the question very well but failed to work out the total amount of money available or the price of the boat per person. A number of candidates worked out the total budget then found $\frac{3}{4}$ of the £1350. Another common error here was to calculate $\frac{1}{4}$ of one of the costs but fail to follow this through by finding $\frac{3}{4}$. Quite a number of candidates seemed to assume that they wouldn't be able to afford the longest boat and so only carried out calculations with costs for the shorter boats; this lost them 2 of the available marks.

Question 8(a)

Those who managed to substitute into the formula usually got full marks. More practice in substitution is required by many candidates. A few made errors due to not applying BIDMAS. Very few tried to work backwards from 860.

Question 8(b)

Most candidates managed to work out the total time taken but 210 minutes posed a problem. Thus, a number of candidates failed to reach a decision or arrived at the wrong decision as they could not convert minutes into hours and minutes.

Question 9

A few candidates did not realise that they needed to produce a time plan. A number of candidates gave a narrative rather than a time plan, which just stated two boats were being cleaned then another two with no mention of which or giving times. Students need practice in producing time plans in a number of contexts. Common errors included miscalculating when adding 2.5 hours to a time, giving an order for things to be done but not assigning times, not distinguishing clearly between the 4 boats and giving a plan for two rather than four boats.

Pass mark for FSM02

Maximum mark	48
Pass mark	30
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 FC029774 November 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

