

Principal Examiner Feedback

Summer 2012

Edexcel Level 2 Award (ANM20)
Proficiency in Number and Measure
Paper 2A + 2B

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Edexcel Award in Number and Measure (ANM10)

Principal Examiner Feedback – Level 1

Introduction

Section A is a calculator paper. It was evident from some work that candidates were attempting the paper without the aid of a calculator. This is not advisable, since calculation errors will cost marks.

Generally the standard of work on this paper was encouraging, particularly the amount of working out that many candidates showed.

Reports on Individual Questions

Section A

Question 1

Part (a) was more successful than part (b), since the second part involves some interpretation of scales.

Question 2

Some reasonable method was demonstrated by candidates, not all of which led to the correct answer. Some candidates calculated 10% and then 5%, but it was not uncommon to find candidates who did not then add this back on to £6.40

Question 3

The majority of candidates produced an accurate pie chart. Some provided the correct angles in the table, but were then unable to produce an accurate pie chart. Those who did not understand merely drew three sectors of approximately the same size. Not all candidates labelled their sectors.

Question 4

The most common error was in writing the time using incorrect notation: 1.35, 1:35, etc. Both 1 h 35 min and 95 min were accepted for full marks. Examiners needed to see evidence of use of $\frac{9}{10}$ or evidence of counting on to award method marks, but in this question working out was rare. Handling durations of time remains a general weakness which candidates need to devote greater efforts to achieve success.

Question 5

There were many correct solutions to this ratio question. Common incorrect methods included division of 36 by 1,2,3 or division of 36 by three resulting in three equal amounts. Most candidates who correctly interpreted what was needed then went on to gain full marks.

Question 6

There were inevitably those who chose to use the formula for circumference instead of area. There were some who used 16 as the radius rather than 8. Those candidates who performed the correct calculation gave their answers to a good degree of accuracy and gained full marks as a result.

Question 7

The majority of candidates chose to use factor trees rather than writing out the multiples of the number. But in so doing few gained full marks, and evidence appeared to suggest they were writing out factors not to find the LCM, but the HCF instead, and indeed there were many answers which reflected this.

Question 8

There was quite a lot of confusion about this question. Some treated it as compound interest, but fewest marks were gained by those who were not about to calculate 3.5% of an amount, usually showing a division rather than a multiplication.

A significant number of candidates added their amount found back onto £500, thereby giving an incorrect answer, having stated the final amount rather than the interest alone.

Question 9

This question was well answered, though it was surprising how many candidates were unable to round off a decimal to just one decimal place, usually by rounding down inappropriately.

In part (c) there was some confusion between doubling and squaring, even from candidates who had previously given the correct answer to part (b)(i).

Question 10

Most candidates had a good idea of what was required in this question, but some then used the wrong order of operations. This included those who deducted the amounts before multiplying by 25. Rather than subtract the summed deductions separate subtraction was popular, only spoilt by those who subtracted one of the amount, but then added on one of the deductions.

Question 11

Many incorrect answers were seen here. It was perhaps too easy for candidates just to multiply the three figures together, or to fail to divide by 2 when calculating the area of cross-section. Only a minority therefore arrived at the correct answer.

Question 12

Some good answers were seen here, usually supported by sound working. Those who failed to earn full marks was because the two figures they were comparing had not been calculated accurately. Some found $\frac{1}{4}$ rather than $\frac{3}{4}$, whilst some also found calculation of 70% quite difficult, particular when they were dividing by 70 rather than multiplying.

Question 13

There were many candidates who were able to calculate the area of one of the rectangles. Far fewer took the next step of calculating both rectangles and attempting a subtraction.

Question 14

Part (a) was well answered. Candidates need to be reminded that their answer should be stated using correct money notation that is including the trailing zero (to 2 decimal places in this respect).

There were also many correct answers in part (b) where most candidates realised that a division was needed.

Question 15

There were inevitably those who chose to use the formula for area instead of circumference. There were some who used 12 as the radius rather than 6. Some failed to divide by 2 to find half the circumference. Those candidates who performed the correct calculation gave their answers to a good degree of accuracy and gained marks for accuracy as a result. It was encouraging to see most candidates adding on the straight edge to complete the perimeter, though some just calculated the curved length of the perimeter.

Section B

Question 1

It is surprising the number of candidates who just added all four numbers, without noticing that the final number had to be taken away. Place value in the addition was handled well, but the subtraction proved a problem for some with $0-7=3$ not uncommon.

Question 2

Candidates struggled with some accepted procedures in this question. Many gained method marks for demonstrating a partial technique, but few were able to present a complete method through to a correct answer. Actual arithmetic appeared good. A range of techniques and methods were seen, including grids, partitioning, tables, alongside more traditional methods. In the division those candidates who started by writing out a nine times table appeared to do better than others. In both parts presentation of clear working assisted in the award of method marks.

Question 3

This question was generally well done. The only major issue was with choosing the correct sign to go with a numerical answer.

Question 4

Some candidates were confused as to what form they should write the answer in. There were many fractions $\frac{24}{80}$, but only a minority of candidates then knew how to convert this fraction into a percentage, or understood that this is what was required.

Question 5

Many chose to round off the numbers to 1 significant figure, though alternative forms of rounding to produce an estimate were also acceptable. Those candidates who attempted to work out the answer accurately with the numbers given found themselves unable to, and gained no credit since it was clear that some form of estimation was required. Many recognised that a division by 20 was possible, but some also used a divisor of 25, perfectly reasonable as the numerator was usually a factor of 25

Question 6

A well answered question. The only errors were related to poor arithmetic, or a failure to state the answer correctly.

Question 7

Fractions are normally not done well, but candidates in this examination generally did well, though not always to completion.

In part (a) there were some good attempts to use common denominators. A significant number took a first step of writing the fractions in their vulgar form, which gave them much larger numbers to use.

In part (b) methods were again confused. Still attempts to use vulgar fractions, but again a significant minority attempting to convert into equivalent fractions with the same denominator, before then multiplying across.

Many failed to simplify the result of their calculations, in either part.

Question 8

This question was well answered.

Question 9

Many candidates took the first step of writing a fraction involving the number 43. Most realised that they had to change the 3m into cm, but this involved not only 300, but 30 and 3000 also. It was not uncommon to just see $\frac{43}{3}$

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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