Examiners' Report<br>Principal Examiner Feedback

## January 2023

Pearson Edexcel Awards
In Number and Measure (ANM10) Paper 1B

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January 2023
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## Edexcel Award in Number and Measure (ANM10)

Principal Examiner Feedback - Level 2

## General Comments

Section A is designed to be completed with the aid of a calculator, but the sight of several non-calculator methods would suggest that not all candidates had a calculator. For example, this was apparent in question 1 and question 7. Similarly, a lack of mathematical equipment and being unable to use it correctly was evident due to the number of students that were unable to measure the angle of $50^{\circ}$

A lack of working for questions that were almost correct caused a lot of students to lose method marks; in particular, for question 6 on Section B we sometimes saw no method at all.

Students continue to mix up methods, especially for area and perimeter of a rectangle and volume of a cuboid. Though it was encouraging that more students were able to find the perimeter of a rectangle than in the previous series.

It was encouraging that, for the Level 1 papers, there were fewer instances of misreading and miswriting numbers and that most candidates attempted a significant number of questions in both sections.

## Comments on individual questions

## Section B

## Question 1

In part (a) most students could write the number given in words in figures and found part (b) rounding 749 to the nearest ten quite straightforward. For part (c) we saw a good number of correct answers but we saw common incorrect answers of 30 and 42. Part (d) was well answered with the most common incorrect answers being 710 and 71000. In parts (e) and (f) there was some confusion between multiples and factors. In part (e) most gave 16 as their answer, though 24 and 80 were other common selections. Some candidates listed all the multiples from 8 to 80. In part (f) the most common incorrect response was 24. It was common to see a response such as $2 \times 6$ which was accepted as showing two factors.

## Question 2

Of those who answered part (a) nearly all were able to correctly write the percentages in order of size. The students found putting the decimals in order much harder. Some of those that didn't obtain any marks for part (b) knew that 0.7 is smaller than 0.8 but then thought that 0.68 was larger than these. On part (c) those that attempted the question but obtained no marks usually put the two amounts of money that were given in pence first followed by the three amounts given in pounds.

## Question 3

Most students were able to give the correct answer of B but a few used an unnecessary long way of doing this and rather than estimating 52 p to 50 p they added 8 lots of 52 p and looked to see which value was nearest to it. Students should practice rounding for sensible answers.

## Question 4

For part (a) most students had access to a ruler and drew a (horizontal) line of the correct length. In part (b) students needed to measure a given angle of 50 degrees. Common mistakes were to read the protractor the wrong way round and state 130 degrees rather than 50 degrees. A good number gave us an angle of 60 degrees which could potentially be due to guesswork as they were without a protractor.

## Question 5

This question was generally done very well. Probably not surprisingly the most common incorrect answer for part (a) was 13 and of those who didn't get the mark for part (b), it was usually because they left it blank.

## Question 6

This question on working out sums without the use of a calculator was answered well. For part (a), the addition was well set out and usually performed accurately, or with a single slip which resulted in the award of 1 mark. A small number aligned the digits on the left, rather than aligning the unit digits, which made progress difficult. Some added two of the numbers first and then forgot to add on the third. For part (b) we saw a good number of correct responses. The multiplication by 4 was usually set out in the traditional way and carried out successfully. Some using the box method had difficulty aligning their diagonal lines. Those partitioning often had trouble with place values, in particular with the $600 \times 4$ and repeated addition seemed to produce inaccurate attempts at the addition. Part (c) was done much better than previously. Some had trouble aligning the numbers correctly, either not placing the decimal points vertically in line, or adding an extra zero to use 12.04 One common slip was to subtract and reach 51.7, completely missing the 3 in the hundredths column.

## Question 7

This question on fractions worthy of 4 marks saw most students gaining at least 2 marks. Part (a), giving the fraction of the rectangle shaded was done the best, with few incorrect answers seen. Part (b) had a mixed response, with $4 / 18$ being the most common correct answer. 20/90 and 18/81 were other common correct responses. In part (c) many stated 3/4 to be $15 / 20$ in its simplest form. Part (d) was reasonably done with several students being able to subtract the given fractions, the most common incorrect answers being 5/0, 11/23 and 6/23.

## Question 8

For part (a) a large number of students were able to give a correct metric unit used to give the volume of juice in a glass. Part (b) proved a challenge for a significant number of students as they did not know the imperial unit that can be used to give the length of a bus. Although they did show us they knew a correct metric unit as metres or centimetres, as these were the most common incorrect answers.

## Question 9

A number of students confused the two parts of this question; if they correctly found the numerical values but ascribed them the wrong way round, they were allowed a single mark. It was not unusual to see the perimeter found correctly, but the area not attempted or found as $6^{2}+10^{2}$. In part (a) some penalised themselves by showing no working - an answer on its own of eg 31 , which was probably from a correct method of finding the perimeter, but gained no credit. In part (b) when finding the area it was not unusual to see the $10 \times 6$ either multiplied or divided by an extra incorrect factor of 2 .

## Summary

Based on their performance on this paper, students are offered the following advice:

- Read questions very carefully and ensure the answer is what is asked for.
- Use the calculator when allowed to do so, i.e. on section A.
- Show all working clearly even on the calculator section.
- Learn conversions between metric units of length, weight and capacity.
- Learn the calculations needed for area, perimeter and volume, and know not to get them mixed up.
- Spend more time revising fractions and decimals and various bills, eg phone bills, gas bills, electricity bills etc.
- Learn how to do simple approximating questions.

