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Examiners' Report/ Principal Examiner Feedback

January 2014

Pearson Edexcel International GCSE Mathematics A (4MA0) Paper 1FR

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The demands of this paper proved to be appropriate; the vast majority of candidates were able to demonstrate positive achievement and many scored high marks. The majority of candidates gave sufficient explanation and showed their working clearly.

In statistics, the range must be given as a single number. It was noticeable in Question 9a that many candidates gave the answer as 1 ~ 5 when asked for the range rather than the correct answer of 4.

Question 1

In part (c), 'tenths' (rather than 'tens') was seen on a number of occasions. Some candidates completely misunderstood this part of the question and worked out $1461 \div 6$. In (d) a common error was to round the given number to the nearest hundred rather than the nearest thousand.

Question 2

A significant number of candidates were unable to identify the shape in part (a) as a hexagon. In (e), some left out the diagonal lines of symmetry. The final part of the question was not well done with only a very few candidates appreciating that interior angles of a polygon all need to be equal if the polygon is regular.

Question 3

Virtually all candidates gained full marks in this question.

Question 4

There were the occasional candidates who divided rather than multiplied in part (a) and then multiplied rather than divided in part (b). The correct formula was generally seen in part (c) although a few candidates gave w rather than d as the subject and so gained one of the available two marks.

Question 5

Virtually all candidates gained full marks in this question.

Question 6

In part (b), stating that the difference between terms is 4 was not enough to gain the mark as this does not explain how each subsequent term was generated. There was mixed success in part (c) with many candidates opting to find the 32^{nd} term in the sequence rather than using the pattern generated by the last digit to give the number that the 32^{nd} term in the sequences ends with.

Question 7

Some candidates failed to score any marks in part (a) by writing the percentage as a decimal rather than a fraction in its lowest terms. In part (b) 0.7 was an occasional wrong answer. In part (c), those candidates who realised that they could just find 24% of 83 were more successful in getting to the right answer than those who tried to write 83 million in figures before finding 24%; these candidates often write down the wrong number of zeros after the 83.

Question 8

While many candidates gained full marks in this question, some lost one mark for the wrong coefficient of d.

Question 9

In part (a) some candidates found the products 'number of goals' × 'number of matches' and then found the range of these numbers. A very common error was to give answer as '1 – 5' or '1 to 5' rather than giving the correct answer of 4, these candidates gained one of the available two marks. The range must be given as a single number.
A common error in part (b) was to give the median of 1, 2, 3, 4, 5 rather than using the information in the 'number of matches' column to find the median of the number of goals. A common error in part (c) was to sum the numbers in the first column and then divide by 3. Other candidates did find the correct total number of goals but then divided by 15 or 5 rather than 25.

Question 10

This question was generally well done but it was surprising to see some candidates convert all the fractions correctly to decimals but then go on to write the fractions in the wrong order.

Question 11

Many correct answers were seen. When candidates are working out angles in questions like this it is important that any angles found as part of the working are either written on the diagram or identified correctly in the working space.

Question 12

The only consistent errors seen in this question were in part (c) where candidates found either the square root or the cube of the given number rather than the cube root.

Question 13

In part (a)(iii), a few candidates gave two separate fractions as their answer rather than the sum of the two fractions.

Question 14

Many candidates got to the correct answer in part (a) but then failed to round this correctly to 3 significant figures, often giving the answer as 315 or 3149 rather than 3150. Another, more serious error, was to find the perimeter rather than the area. In part (b) virtually all candidates who recognised the need to use Pythagoras's Theorem gained full marks. Some candidates found the area rather than the length of the hypotenuse.

Question 15

In part (a), the common error was that candidates attempted to divide 24 in the ratio 3 : 5 in part (a) rather than answer the set question. In part (b), the answer was sometimes given as 9 years (John's age) rather than 36 years (Zahra's age).

Question 16

It is worth noting that, in part (b), any candidate who wrote down the answer without showing algebraic working scored no marks. In part (c), the majority of candidates dealt correctly with the terms in y to end up with $10y$ but this was frequently accompanied by an incorrect integer value.

Question 17

72^o and 108^o were common incorrect answers to part (a). Having used a scale factor of 3 successfully in part (b), some candidates then incorrectly used the same scale factor in part (c).

Question 18

Part (a) was well done. In part (b) the common error was to reduce \$2162 by 23%. Some candidates did not read the question carefully enough and gave \$9400 rather than \$7238 as their final answer.

Question 19

Some candidates included the number 1 with their answer suggesting that the meaning of the Universal Set is not always understood. A minority of candidates confused factors with multiples.

Question 20

Common errors were an answer of 72^o in part (a) and 120^o in part (b). A minority of candidates did not read the question carefully and thought that they were still working with a pentagon in part (b) thus giving an answer of 72^o.

Question 21

Part (a) was reasonably well done. In part (b) some candidates gave their final answer using the equals sign or an incorrect inequality.

Grade Boundaries

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