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GCSE

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Foundation Paper (5383F/09)

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1. PRINCIPAL EXAMINER'S REPORT – FOUNDATION PAPER 9

1.1 GENERAL COMMENTS

1.1.1 This paper was accessible to most candidates. There was no evidence to suggest that candidates had difficulty completing the paper in the given time. The vast majority of candidates completed their answers in the spaces provided.

1.1.2 It was good to see so many candidates showing the various stages in their working.

1.1.3 Candidates should be advised not to use multiplication signs in simplified algebraic expressions.

1.1.4 Candidates should be advised that, in general, diagrams are not accurately drawn and that correct answers can rarely be achieved by measurement.

1.1.5 Candidates should be advised to give complete reasons for their answers, i.e. corresponding angles and not just corresponding.

1.2 REPORT ON INDIVIDUAL QUESTIONS

1.2.1 Question 1

Part (a) was done well. Most candidates were able to round 12.38 to the nearest whole number. Common incorrect answers here were 12.40, 13 and 1238. In part (b), many candidates were able write down the square of 5. Common incorrect answers here were 2.236, 10, 2.5 and 10^2. Part (c) was done well. Many candidates were able to find the square root of 81. Common incorrect answers here were 6561, 40.5, 9×9 and 9^2.

1.2.2 Question 2

Part (a) was done well. Most candidates were able to simplify $p+p+p+p$. Common incorrect answers here were p^4, 4^p, 4, $3p+p$, p^3, and $4+p$. Part (b) was not done well. Less than half the candidates were able to simplify $r\times r\times r$. By far the most common incorrect answer here was $3r$. Other common incorrect answers were $r3$, $3\times r$, , $3r^2$ and 3^r. Candidates should be advised not to use multiplication signs in simplified algebraic expressions. In part (c), only about half the candidates were able to simplify $5t\times 2w$.Common incorrect answers here were $10\times tw$, $7tw$ and tw^{10}.

1.2.3 Question 3

This question was done very well. Most candidates were able to subtract 74 from 650 correctly and then add 45 to their answer. A significant number of candidates attempted this question without the use of a calculator. A common error here was $650-74=586$, $586+45=631$

1.2.4 Question 4

This question was done well. Many candidates were able to draw a radius in the circle. By far the most common mistake here was to draw a diameter. Other common errors were to draw a sector or a chord (relatively rare). Some candidates drew their radius so that it extended to a point outside the circumference of the circle.

1.2.5 Question 5

This question was not done quite well. The majority of candidates were able to work out the correct change. A significant number of candidates were unable to give their answer using the correct money notation- typically (£)8.2, (£)8.20p and (£)8.2p. By far the most common incorrect answer here was (£)9.50, coming from a calculation using only one pencil; but calculations involving 2 or 4 pencils were not uncommon. A significant number of candidates were unable to write down their method accurately- e.g. writing the subtraction $20-11.80$ incorrectly as $11.80-20$ or ignoring the place value in $6.15+65+65+65+3.70$. A surprising number of candidates obtaining 11.8 in the first stage of their calculation then went on to work out $20-11.08$ in the second stage of their calculation.

1.2.6 Question 6

Only the best candidates were able to do well in this question. In part (a)(i), many candidates were able to write down the correct value of x. A very common error here was 84. A significant number of candidates attempted to measure the angle in the diagram. Candidates should be advised that, in general, diagrams are not accurately drawn and that correct answers can rarely be achieved by measurement. In part (a)(ii), few candidates were able to give a correct reason for their answer. An acceptable answer here was F-angles. A common incorrect answer was alternate angles. Candidates should be advised to give complete reasons for their answers, i.e. corresponding angles and not just corresponding. In part (b), few candidates were able to use the isosceles properties of triangle CFG to work out the value of y. An acceptable approach here, presumably derived by inspection, was $84\div 2(=42)$. A common incorrect answer was 48 (from $96\div 2$).

1.2.7 Question 7

This question was done quite well. In part (a), many candidates were able to score at least 1 mark for writing 2 correct values for *y* in the table- usually 1 and 7. A common incorrect answers for $x=-1$ was $y=-1$. In part (b), many candidates were able to score 1 mark for plotting their points from the table correctly, but some had difficulty in interpreting the scale on the *y*-axis. A very common error here was to plot the point (–1, –11) at (–1, –10). A significant number of those candidates who plotted all the points correctly did not then go on to complete the question by drawing a line through the points.

1.2.8 Question 8

Only the better candidates were able to make much progress with this question. By far the most popular approach was to work out 55% of 1600 and then subtract this from 1600. Most candidates who tried to work out 55% (or 45%) of 1600 attempted to do this by a process of decomposition, e.g. $50\%(=800)+5\%(=80)$, but often with little success. Common errors generally occurred in the attempt to find the 5% part of the calculation, e.g. 5% of 800 (instead of 5% of 1600). Other common errors were 1545 (from $1600-55$), 792 (from $(45\%=800(50\%)-8(5\%))$, 45% and 880 (55% scoring only 1 mark).

1.2.9 Question 9

Very few candidates were able to score full marks on this question, but some were able to score 1 mark for attempting to work out an area for at least one of the faces (usually for $17\times23=361$ and often for $15\times23=345$). By far the most common error here was 63 (achieved by adding the given lengths). Other popular common errors include multiplying all the given lengths, working out the volume of the prism and 511 (from $391+120$).

1.3 GRADE BOUNDARIES

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