International GCSE Maths A January 2020 – Paper 2HR Mark scheme

Apart from Questions 1b, 7, 16c, 19a, 21b, 24 and 25 where the mark scheme states otherwise, the correct answer, unless clearly obtained by an incorrect method, should be taken to imply a correct method.

Question	Working	Answer	Mark	Notes
1 (a)		5^{19}	1	B1
(b)			2	M1 A factor tree / division ladder of 3 or more factors (≠1), multiplying to 800, which must include 2 and 5. Condone 1 error when product ≠ 800
		$2\times2\times2\times2\times2\times5\times5$		A1 dep on M1 oe eg $2^5 \times 5^2$
				Total 3 marks

2	$10 \times 5 + 30 \times 11 + 50 \times 8 + 70 \times 19 + 90 \times 9$ $(50 + 330 + 400 + 1330 + 810)$		3	M2 Correct products using midpoints (allowing one error) with intention to add. M1 for products using frequency and a consistent value within the range (allowing one error) with intention to add. or correct products using midpoints without addition (allow 1 error)
		2920		A1 N.B. 2920 ÷ 52 (=56.2..) scores M2A0
				Total 3 marks

3	$4x$ or $x - 7$		4	M1 Correct expression for B or C
	$x + 4x + x - 7 = 137$ oe			M1 Correct equation
	$x = 144 \div 6$ (=24) or $6x = 144$ or $6x - 144 = 0$			M1 Gathering up the x's and numbers Dep on previous M1
		17		A1
				Total 4 marks