2339	Mark Schem	ne	January 2005
8	SECTION Enlargement only Scale factor -2 Centre (0, 1)	N B 1 1	SC1 for enlargement (sf 2) and 180° rotation (or half turn) in either order. (no other trans. mentioned)
		[3]	
9	$b = \frac{A - 2wh}{2w + 2h}$ oe (mark final answer)	3	M2 $A - 2wh = b(2w + 2h)$ or better.
		[3]	or M1 $A - 2wh = 2wb + 2bh$ after 0 SC1 for correct factorising of 'their 2wb+2bh'
10	3 of 0.23, 0.32, 0.16, 0.01 (or multiples)	M1	in table or from bar heights in correct ratio
	vertical axis scaled and labelled or key	A1	scale & 'frequency density' suff. if heights are 0.23, 0.32 etc, units needed otherwise.
		A1	• • • • • • • • • • • • • • • • • • • •
	all bars correct in height and width within 1 mm	[3]	
11	(a) $C = 0.025w^2$ oe	3	M2 for 1.6(0) = 64k or k = 0.025 or $C \propto 0.025w^2$ or M1 for $C = kw^2$ or $C \propto w^2$
	(b) 12	2	M1 for w ² = 3.60 ÷ their k or SC1 for 18 ans. to (a) written and used in (b) scores SC3 if not already awarded in (a).
		[5]	
12	(a) 65 to 65.4or 65.5	3	M2 for $\pi \times 2.5^2 \times 10 \times \frac{1}{3}$
			or M1 for $\pi \times 2.5^2 \times 10$ SC2 $\pi \times 5^2 \times 10 \times \frac{1}{3}$ (261.7
	(b) 10.9 or $10 \times \sqrt[3]{1.3}$	M2	M1 $\sqrt[3]{1.3}$ seen
	11	A1	or SC1 for 85.0 or 1.3 × their (a) soi.
		[6]	or SC1 their ans to nearest cm but not 13 or their volume
13	(a) 80, 40, 10, 5	2	1 for 2 correct
	(b) 6 points plotted √	1 1	
	5 pts joined with a smooth curve.	1	condone support from
	(c) 1.3 to 1.5	[5]	calculation
	Section B Total:25 Total mark available: 50		