22		$(V =)\ x(x)(15 - 4x)\quad (= 15x^2 - 4x^3)$		5	M1	for a correct expression for the volume (condone missing $V = \ldots$)
		$\left(\frac{dV}{dx} =\right)\ 30x - 12x^2$			M1ft	ft dep on a V of the form $ax^3 + bx^2$ where $a, b \neq 0$ for a two-term derivative with at least one term correct for their V eg $15(2)x$ **or** $30x$ **or** $-3(4)x^2$ **or** $-12x^2$
		$30x - 12x^2 = 0 \Rightarrow x = \ldots$ **or** $(x =)\ 2.5$ oe			M1ft	dep on previous M mark for equating their 2-term first derivative to 0 and solving to get a value of x (the value of x obtained must be greater than 0 and must not be where their second derivative is equal to 0) **or** the correct value of x
		$(V =)$ "2.5" × "2.5" × (15 – 4 × "2.5") **or** $(V =)\ 15(\text{"2.5"})^2 - 4(\text{"2.5"})^3$			M1	dep on M3 for a full and correct substitution of their value of x
		Correct answer only scores full marks (unless from obviously incorrect working)	31.25		A1	oe eg $\frac{125}{4}$ ignore any units on the answer line
						Total 5 marks