Question			Answer	Marks	AO	Guidance
				[5]		
11			$\frac{dy}{dx} = 6x^2 + 18x + 24$	B1	2.1	
			their derivative $\frac{dy}{dx} = 0$	M1	1.1	The $\frac{dy}{dx} = 0$ may be implied by their concluding statement e.g if they say 'no real roots' Use of discriminant implies this mark
			their $18^2 - 4 \times 6 \times 24$ calculated (may be seen embedded in an attempt to solve their quadratic with QF etc. **If no formula quoted then the the solutions must be correct for the method mark. If the formula is quoted, we can allow one error with the substitution of values**)	M1	3.1a	Most common quadratics seen are: $6x^2 + 18x + 24 = 0$ or $3x^2 + 9x + 12 = 0$ or $2x^2 + 6x + 8 = 0$ or $x^2 + 3x + 4 = 0$ **May have to check for their quadratic** **NOTE:** They could also use a sketch method here: sketch their quadratic and then complete the square to show that the TP is above the x – axis- will need to check their work carefully
			'$-252 < 0$' o.e. for their quadratic	A1	1.1	-252 < 0 or -63 < 0 or -28 < 0 or -7 < 0 etc May be implied by correct solutions to their quadratic e.g. $\frac{-3 \pm \sqrt{7}\, i}{2}$
			Hence $\frac{dy}{dx} = 0$ has no solutions and therefore there are no stationary points on the curve	A1*	3.2a	Must give a concluding statement e.g. 'therefore no stationary points'. **Depends on all previous marks.** Condone SPs or 'turning points' or TPs for stationary points