

Question		Answer	Marks	AO	Guidance
8		$\frac{dy}{dx} = 6x^2 + 6mx - 9m$ $(6m)^2 - 4 \times 6 \times (-9m) \text{ oe seen}$ <p>two values of m obtained from their discriminant</p> $36m^2 + 216m < 0$ <p>or $36m^2 + 216m = 0 \text{ oe}$</p> <p>0 and -6 identified</p> $-6 < m < 0 \text{ oe}$	M1* A1 M1dep* M1 A1 A1	3.1a 1.1 3.1a 2.1 1.1 3.2a	differentiation of all 4 terms with 3 of the 4 terms differentiated correctly all correct discriminant for their 6, $6m$ and $-9m$; may see $(2m)^2 - 4 \times 2 \times (-3m)$ dependent on obtaining discriminant from their derivative; M0 for use of their discriminant > 0 or ≥ 0 NB $4m^2 + 24m < 0$ or $4m^2 + 24m = 0$ inequality or interval must be strict