

4	(a)		$3x^2 - 12x + 9 = 0$ $x = 3$ or 1 $(3, 0)$ and $(1, 4)$	M1 A1 A1f A1 [4]	1.1a 1.1 1.1 1.1	Attempt differentiate & $=0$ May be implied Correct equation. May be implied by ans BC Allow When $x = 3, y = 0$; when $x = 1, y = 4$	$x(x - 3)^2 = 0$ M1 tp at $x = 3$ A1 ft their equation cao. Must be paired
4	(b)		Sketch (drawn in this part) of "+ve" cubic with two SPs, roughly correct shape, or just two TPs shown OR: $f(1) = 0$ and $f(3) = 0$, find k for each $k > 0$ or $k < -4$	M1 A1f [2]	3.1a 2.2a	Subst $x=1$ & $x=3$ into $y = x^3 - 6x^2 + 9x$ ft (a) ft their (a) Correct ans: M1A1	or identify $k = -4$ and 0 . ft (a)