Question		Answer	Marks	AO	Guidance
4	(a)	**DR** $\frac{dy}{dx} = 3x^2 - 8x - 3$	**M1**	**1.1**	• Attempt to differentiate • Implied by two correct terms
			A1	**2.1**	• Correct $\frac{dy}{dx}$
		Gradient at $(-1, 0)$ is $3(-1)^2 - 8(-1) - 3$	**M1**	**1.1**	• Substitutes $x = -1$ into *their* $\frac{dy}{dx}$ • Implied by 8 or correct tangent
		$y = 8(x + 1)$ oe	**A1** **[4]**	**1.1**	• e.g. $y = 8x + 8$
4	(b)	$3x^2 - 8x - 3 = 8$	**M1**	**3.1a**	• Forming an equation with *their* gradient function and *their* gradient of tangent from **(a)** • Condone use of $-\frac{1}{8}$ unless this is clearly linked to the 'normal' • Implied by correct value for x
		$3x^2 - 8x - 11 = 0$ $x = \frac{11}{3}$	**A1FT**	**2.1**	• oe • BC OR $3\frac{2}{3}$ OR $3.\dot{6}$. • FT dep 3 term quadratic has a factor of $(x + 1)$ (i.e. root of $x = -1$)
		$\left(\frac{11}{3}, -\frac{364}{27}\right)$	**A1**	**1.1**	• Both coordinates found, **must** be exact • isw - condone conversion to decimals • OR $x = \frac{11}{3}$, $y = -\frac{364}{27}$ • Exact values can be top-heavy fractions, mixed numbers or recurring decimals: e.g. $-\frac{364}{27} = -13\frac{13}{27} = -13.\dot{4}8\dot{1}$

Question		Answer	Marks	AO	Guidance
			[3]		