

Question	Scheme	Marks	AOs
<b>2(a)</b>	$x^3 \rightarrow x^2$ or $x^2 \rightarrow x$ or $-10x \rightarrow -10$	M1	1.1b
	$\frac{dy}{dx} = 15x^2 + 19x - 10$	A1	1.1b
		<b>(2)</b>	
<b>(b)</b>	$\left(\frac{dy}{dx} =\right) 15(-2)^2 + 19(-2) - 10 = \dots (=12)$	M1	1.1b
	$y - 6 = "12"(x + 2)$	dM1	1.1b
	$y = 12x + 30$	A1	1.1b
		<b>(3)</b>	

**(5 marks)**

### Notes

**(a)**

M1: Reduces the power of  $x$  by one on one of the terms (indices do not need to be processed)

A1:  $15x^2 + 19x - 10$ . Allow  $19x^1$

**(b)**

M1: Attempts to find the gradient of the curve at  $x = -2$

dM1: Attempts to find the equation of the tangent at  $(-2, 6)$  using their gradient. If they use  $y = mx + c$  they must proceed as far as  $c = \dots$ . It is dependent on the first method mark.

A1:  $y = 12x + 30$