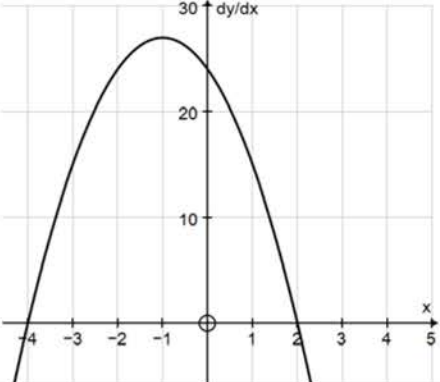


10	(a)	<p>DR</p> $\frac{dy}{dx} = 24 - 6x - 3x^2$ <p>When $x = 0$, $\frac{dy}{dx} = 24$</p> <p>When</p> $\frac{dy}{dx} = 0, -3(x^2 + 2x - 8) = 0 \Rightarrow (x + 4)(x - 2) = 0$ $x = -4, 2$ 	<p>M1</p> <p>A1</p> <p>M1</p> <p>A1</p> <p>B1</p> <p>[5]</p>	<p>1.1a Expression for derivative seen</p> <p>1.1 May be shown on graph or in the working</p> <p>1.1a Method for solving their quadratic equation (allow any algebraic method)</p> <p>3.1a Must be seen on graph</p> <p>1.1 Correct shape. Maximum point should be to the left of the y-axis but need not be exact.</p>	
10	(b)	<p>DR</p> <p>Decreasing function when $\frac{dy}{dx} < 0$</p> $\{x : x < -4\} \cup \{x : x > 2\}$	<p>M1</p> <p>A1</p> <p>[2]</p>	<p>1.1a Attempt to give the values of x for which $\frac{dy}{dx} < 0$ from their graph</p> <p>2.5 FT their graph if quadratic</p> <p>Condone use of \leq for M mark</p> <p>Allow for “$x < -4$ or $x > 2$”</p> <p>Must be correct use of language or set notation here.</p>	<p>Do not allow A1 for $x < -4, x > 2$</p> <p>$x < -4$ and $x > 2$</p> <p>$-4 > x > 2$</p>