<ul> <li>Given that f(x) is cubic with the coefficient of x² equal to the coefficient of x.</li> <li>The curve with equation y = f(x) passes through the point (0,5).</li> <li>The curve with equation f(x) has stationary point (2,-3)</li> </ul>		
(a) Find $f(x)$	© www.formular1maths.com Link to Solutions: https://youtu.be/uMKgJE6Wlko	(7 mark.
(b) Show that the stationary po		(2 mark
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$^{f 2}$ A solid right circular cylinder has radius $r$ cm and height $h$ cm.				
	The total surface area of the cylinder is $500 \text{ cm}^2$ .  © www.formular1maths.com Link to Solutions: https://youtu.be/uMKgJE6Wlko			
	(a) Show that the volume, V cm³, of the cylinder is given by:			
com	$V = 250r - \pi r^3. \tag{3 marks}$			
aths.c	Given that r varies,			
ar1m	(b) Use calculus to find the maximum value of $V$ , to the nearest $cm^3$ . (5 $marks$ )			
rmul	(c) Justify that the value of V in (b) is maximum. (1 marks)			
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