

Algebra Revision

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(a)	(b)	(c)	(d)	(e)	
<p>Make x the subject of the formula</p> $y^2 = \frac{ax - c}{x + 1}$	<p>y is inversely proportional to the cube root of x. When $x = 27$, $y = 2.5$. Find a formulae for y in terms of x.</p>	<p>Prove that $(2n + 3)^2 + (2n - 1)^2$ is even for all positive values of n</p>	<p>The curve with equation $y = f(x)$ has a maximum point at $(2, 7)$. Write down the coordinates of the maximum point of the curve with equation:</p> <p>(i) $y = 3f(x)$</p> <p>(ii) $y = f(x - 4)$</p>	$f(x) = \frac{x}{2x + 3}$ $g(x) = 1 - 6x$ <p>Find $fg(x)$ in its simplest form</p>	
(f)	(g)	(h)	(i)	(j)	
$f(x) = \frac{2x}{7} + 1$ <p>Find $f^{-1}(x)$</p>	<p>Solve $\frac{x-1}{2} + \frac{3}{x} = 3$</p>	<p>Solve $2x^2 - 5x > 3$</p>	<p>Here are the first five terms of a sequence: 4, 7, 10, 13, 16, ... Find the sum of the 6th to the 50th term of this sequence.</p>	<p>The curve $y = 2x^2 + \frac{32}{x}$ has one stationary point. Find the coordinates of this point.</p>	