Algebra Revision				6
(a)	**(b)**	**(c)**	**(d)**	**(e)**
Make x the subject of the formula $y^2 = \frac{ax - c}{x + 1}$ $x = \frac{c + y^2}{a - y^2}$	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. $y = \frac{7.5}{\sqrt[3]{x}}$	Prove that $(2n + 3)^2 + (2n - 1)^2$ is even for all positive values of n $8n^2 + 8n + 10 = 2(4n^2 + 4n + 5)$	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: (i) $y = 3f(x)$ $(2, 21)$ (ii) $y = f(x - 4)$ $(6, 7)$	$f(x) = \frac{x}{2x + 3}$ $g(x) = 1 - 6x$ Find $fg(x)$ in its simplest form $fg(x) = \frac{1 - 6x}{5 - 12x}$
(f)	**(g)**	**(h)**	**(i)**	**(j)**
$f(x) = \frac{2x}{7} + 1$ Find $f^{-1}(x)$ $f^{-1}(x) = \frac{7y - 7}{2}$	Solve $\frac{x-1}{2} + \frac{3}{x} = 3$ $x = 1, x = 6$	Solve $2x^2 - 5x > 3$ $x > 3, x < -0.5$	Here are the first five terms of a sequence: $4, 7, 10, 13, 16, \ldots$ Find the sum of the 6th to the 50th term of this sequence. 3825	The curve $y = 2x^2 + \frac{32}{x}$ has one stationary point. Find the coordinates of this point. $(2, 24)$