ACHIEVEMENT QUESTIONS ON A TYPICAL NCEA PAPER. (A) ALGEBRA. You need to get these right for achievement. Ouestion ONE

Question ONE	
(a) Simplify $(a^4)^3(5a)^2$	(b) Simplify $(27b^6)^{-\frac{1}{3}}$
Question TWO	
(a) Factorise $4x^2 + 4x - 15$	(b) Solve $4x^2 + 4x - 15 = 0$
Question THREE	
(a) Solve for x : $log x = 3 log 4$	(b) Solve for x : $log_4 x = 2$

<u>CALCULUS</u> *You need to get these right for achievement.* Question ONE

Question ONE	
(a) If $f(x) = 3x^2 + 4x - 5$ find the gradient when $x = 2$	(b) The gradient function $f'(x) = 3 - 4x$ The graph passes through (2, 7), find the equation for $f(x)$
Question TWO	

Question 1 // o	
(a) Find the x coordinate of the point on the	(b) Find the x coordinate of the points on
graph $y = x^2 - 3x + 7$ where the gradient	the graph $y = \frac{x^3}{x^2} - x^2 - 15$ where the
is equal to 8	3
	gradient is equal to 0
Ouestion THREE	