

### A - Level Maths 15 Minute Boost 4

What is $\binom{n}{r}$ ?	
$\operatorname{cosec}(x) =$	
$\log_a(x^n) =$	
What is the formal definition of the derivative of $f(x)$ ?	
$\int \frac{1}{x} \, dx =$	
<p><b>1)</b> The coefficient of <math>x^4</math> in the expansion of <math>(3 + 2x)^n</math> is 15120. Find the value of <math>n</math>.</p>	



2) Using integration by substitution find  $\int_0^3 x\sqrt{3x+2} \, dx$

