

**2nd March**

Corbettmaths

Factorise  $12x^2 + 5x - 3$ For what values of  $x$  is  $y = (x + 3)^2$   
an increasing function?Use Pascal's Triangle to work out the  
coefficient of  $x^2$  in the expansion of  
 $(2x - 11)^4$ Show that  $(x + 3)$  is a factor of  
 $x^3 + 3x^2 - 49x - 147$ Hence, or otherwise, find all the  
solutions of  
 $x^3 + 3x^2 - 49x - 147 = 0$