

**3rd April**

Corbettmaths

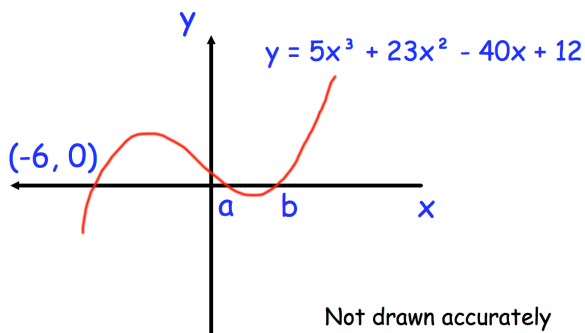
The  $n^{\text{th}}$  term of a quadratic sequence is  $n^2 - 4n + 9$

Work out the difference between the 10th and 15th terms.

$$y = \frac{2x^6 - x^5}{x^3}$$

Work out the rate of change of  $y$  with respect to  $x$  when  $x = 3$

Below is the graph of  $y = 5x^3 + 23x^2 - 40x + 12$



Find the coordinates of the points  $a$  and  $b$ , where the graph of  $y = 5x^3 + 23x^2 - 40x + 12$  crosses the  $x$ -axis.

The coefficient of the  $x^3$  term in the expansion of  $(2x + a)^5$  is 13720  
Find the possible values of  $a$