



Show the equation $3x^3 + 7x = 5$ has a solution between 0 and 1

Show that $3x^3 + 7x = 5$ can be rearranged to give

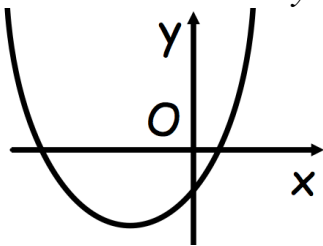
$$x = \frac{5}{7} - \frac{3x^3}{7}$$

Starting with $x_0 = 0$ use the iteration formula

$$x_{n+1} = \frac{5}{7} - \frac{3x_n^3}{7}$$

three times to find an estimate for the solution to $3x^3 + 7x = 5$

Here is a sketch of $y = 2x^2 + 5x - 12$



Find the equation of the line of symmetry of the graph.

The ratio of A to B is 1:400 where 400 is given to the nearest 100.

B is 5×10^{15} correct to one significant figure

Calculate the minimum value of A Give your answer in standard form.