

26th April



Corbettmaths

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

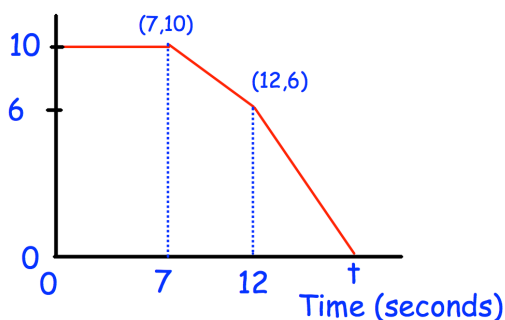
$$x = \frac{5}{7} - \frac{3x^3}{7}$$

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  $3x^3 + 7x = 5$

Speed (m/s)



The average speed from 0 to  $t$  seconds was 5.96m/s

Find  $t$ 

Find the rate of deceleration from 7 to 12 seconds.