

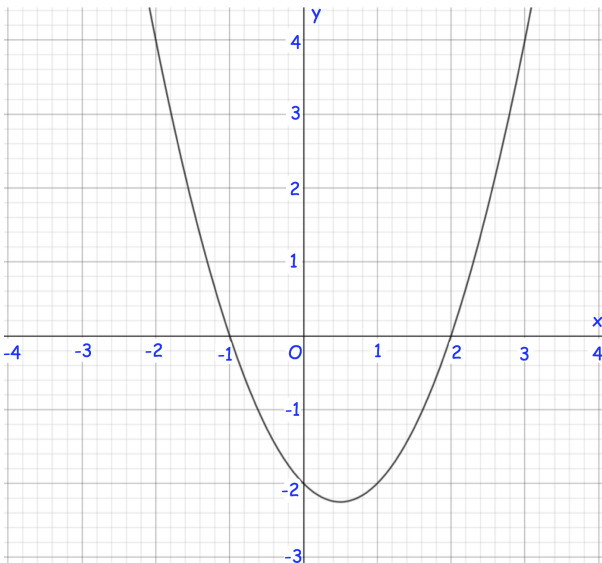


$$x_{n+1} = -3 - \frac{5}{x_n^2}$$

Starting with  $x_0 = -4$

Find  $x_1$ ,  $x_2$  and  $x_3$

Explain the relationship between the values of  $x_1$ ,  $x_2$  and  $x_3$  and the equation  $x^3 + 3x^2 + 5 = 0$



Shown is  $y = x^2 - x - 2$

By drawing an appropriate straight line, use your graph to find estimates for the solutions of  $x^2 - 2x - 1 = 0$

Calculate an estimate for the gradient of the graph  $y = x^2 - x - 2$  at the point where  $x = 1$

A money box contains  
 Four £2 coins  
 Three £1 coins  
 Five 50p coins

Three coins are taken at random

Find the probability that exactly £3 is selected.