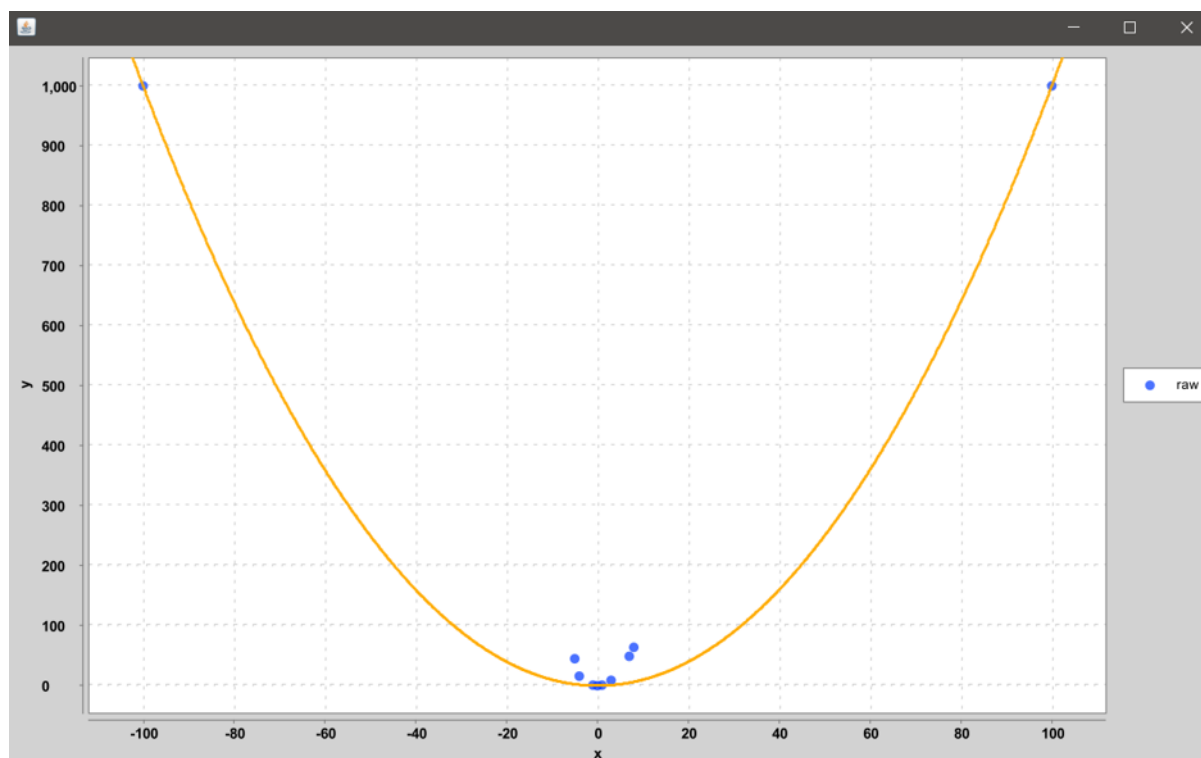


Question One:

Univariate non-linear regression in Java with initial values of w_0 , w_1 and w_2 set to 0 and α set to 0.00000001 over 100 epochs. My code¹ yields the following output:

$$h(x) = (0.10000515906009057 * x^2) + (-5.183013415310536E-4 * x) + 1.7778308805231613E-4$$

After plotting this function (using xchart) we can see parameterized hypothesis function fits the training data relatively well.



lol

¹solution1.java