3 Homework

In this homework you are going to find the intervals which contain any roots of any polynomial. You are going to create a function and find the intervals which contain roots of the function given below;

$$f(x) = x^4 + \frac{7}{2}x^3 - 3x^2 - \frac{7}{2}x + 2.$$

You are given an interval which is $[-6, 6]$ and for this interval your code should;

Step1. Split the interval into subintervals,

Step2. For each subinterval, Check whether this subinterval contains any root.

Step3. Display your resulting intervals for the roots on the screen.

For step 1, use Step_Size = 0.03 to split the interval into subintervals.

An example Screenshot for the function $f(x) = x^2 - x - 2$, is given below;