HW4

Determine the highest real root of $f(x)=2x^3-11.7x^2+17.7x-5$

a) Graphically

b) Using 3 iterations of the Fixed-point method with first guess $x_0=3$ (make sure you develop a solution that converges to the root)

c) Using 3 iterations of the Newton's Method with first guess $x_0=3$

Using 3 iterations of the secant method with first guess $x_{-1}=3$ and $x_0=4$

d) Using 3 iterations of the modified secant method with $x_0=3$ and $\delta=0.01$

Compute the percent relative errors for your solutions

BONUS: Check your answers with your codes and find out how many iterations are necessary to reach a relative error of 0.0001