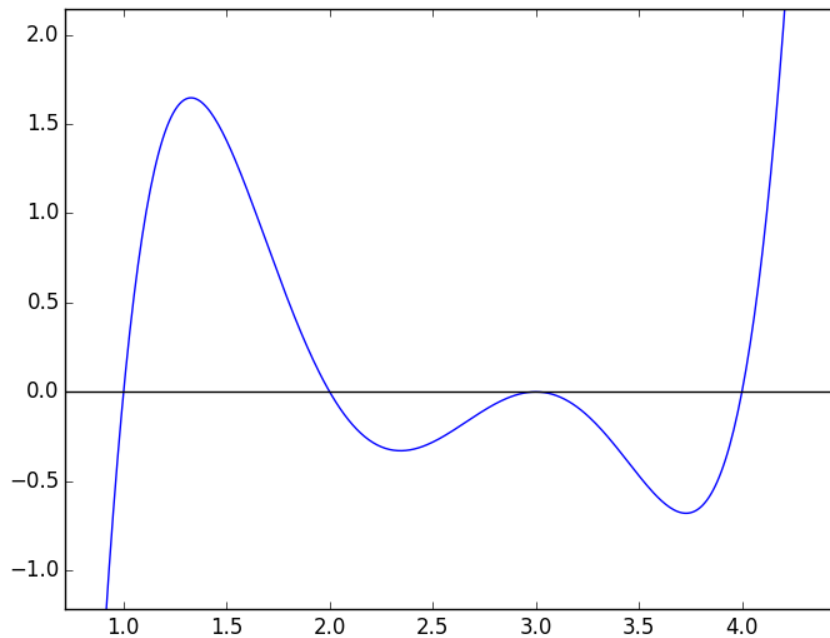# ISC4220C Test Question

February 15, 2015

In neuronal dynamics molecular activity occurs at various timescales. To solve these "stiff" problems we use what are called adaptive implicit methods which require a solution of a nonlinear equation for each iteration. A nonlinear function from one such iteration is given below.

(i) What method(s) would you use to find all of the roots in the given interval? Explain.

(ii) What would be your initial conditions for your method(s)? Explain.

(iii) Finally what would be the convergence of your method(s)? Explain.