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%%Nicole Nutter
%%Lab 4
% Rootfinder for crystal growth
% Goal: Find the equilibria
%initial guess
x0=0.2;
%maximum number of iterations performed
maxIT=25;
%tolerance for testing convergence
TOL=1.e-16;
%call rootfinder
Newton1D(x0,TOL,maxIT)

#n xn F(xn)
1 2.000000e-01 5.247141e-08
2 1.532874e-01 1.317951e-08
3 1.303069e-01 2.847895e-09
4 1.215904e-01 4.064150e-10
5 1.198481e-01 1.643497e-11
6 1.197714e-01 3.192870e-14
7 1.197713e-01 1.213375e-19
8 1.197713e-01 0
9 1.197713e-01 0
DONE: root = 1.197713e-01 and F = 0 in 9 iters
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