

Math 20750
Spring, 2016

Assignment 1, due January 20

Download MATLAB R2015b. To do this, go to oit.nd.edu, then under Software click on Downloads then click on MATLAB for Students and follow the directions. On your Mathworks account page click to download MATLAB R2015b, then on your operating system, and then Download the current versions of all my products.

Read chapters 1-4 in *Differential Equations with MATLAB*[®].

Do Problem Set A #1,3,5-14. Follow the directions for MATLAB assignments.

Before turning it in, use the MATLAB checklist.

Comment about Problem Set A:

- In #5, be sure you find all of the intersections.
- In #9 the **solve** command will give you some of the roots in the form

root(cubic, z , j)

where $j = 1, 2, 3$ and cubic is some cubic expression in z .

Here are two ways to deal with this.

- Turn the answer from the **solve** command into decimal approximations using **vpa**.
- Give the **solve** command the options '**MaxDegree**' and 5 (since you're trying to solve a 5th degree equation). You'll get the exact solutions. If you want, you can use ***vpa*** or ***double*** to get decimal approximations.