

Math 20750
Spring, 2016

Assignment 3, due January 29

Reread §§2.3-2.5 and read §2.6 in Polking, Boggess and Arnold.

Do:

§2.4 #6,12,18,21,22,28,32,38

§2.3 #3,7,11,12,14,18

Reread chapters 5-7 in *Differential Equations with MATLAB*[®].

Do as a MATLAB group:

Problem Set B #1,8

Use a separate m-file for each problem. Staple the published solutions together in order. Make sure the names of all members of your MATLAB group are on MATLAB assignment before turning it in.

Hints for Problem Set B #8

MATLAB gives you an implicit solution, which you want to write in the form $f(t, y) = c$. The implicit solution will be something of the form

`RootOf(g(z,t),z)`

where g is some function of z and t . An example (not exactly what you'll get) would be:

`RootOf(z^3+5*z^2-9*z+2013 - 29*C5+t^(94),z)`

so y satisfies the equation $y^3 + 5y^2 - 9y + 2013 - 29C5 + t^{94} = 0$ where $C5$ is some constant.