

University of Central Florida
School of Electrical Engineering and Computer Science
EGN-3420 - Engineering Analysis.
Fall 2009 - dcm

Homework 1 due Thursday week 4

Problem 1 (100points) Write a MATLAB program to solve the differential equation:

$$af''(t) + bf'(t) + cf(t) = 0$$

using the Laplace transform. Solve the equation for $a = 1, b = -8, c = 15$ and $f(0) = 13$ and $f'(0) = -7$.

Hints: Use the class notes on the Laplace Transform and the example in Section 3.4 of the function `quadroots(a,b,c)`.