1. Do a variation of exercise 14.8 on page 327-328 of the textbook. Specifically, utilize either the MATLAB® function “quad” or, preferably, the MATLAB® function “integral” instead of Simpson’s rule. Submit your program in an m-file named “ex14p8\_LastName.m”. Make sure to specify “format long” to see the difference in the result versus the results with Simpson’s rule described in the exercise 14.8 description.

Graphical user interface, text, application, email

Description automatically generated

1. Following the screencast, implement a function m-file named “nonlinear\_circuit\_LastName.m” that implements the system of two differential equations describing voltages v1 and v2 in the nonlinear circuit example. Use the provided driver file “nonlinear\_solver.m” to solve the system of differential equations and plot out the source voltage and voltages v1 and v2.