MM2 – Chapter 9 – Section 4

Pre-Class Question:

Write a simple differential equation to solve the following equation in MATLAB:

$$\dot{y} = x^{2/3}$$

Where y(0) = 2

Class Worksheet

1. Use the Lagrangian to find the equations of motion for a block sliding down an incline
2. Find the equations of motion of a particle constrained to move on the surface of a shere.
3. Set up the 1D pendulum problem using the Lagrangian