Project 5 - Volumes and Gauss' Law - Part C

Due Wednesday 2-27

1. Computationally determine the electric field x meters away from the center of a sphere (r=1 m) with a uniform charge density (2 C/m^3). Let x range from 0 to 3 meters. Use your program to create a graph of the magnitude of E as a function of x. Make this graph is Excel. Be sure to label your axes!

2. Suppose the Earth had the same mass but were shaped like a cube with the length of each side being twice the Earth's diameter. What would be the freefall acceleration at the center of one side?

Place Excel and ONE cpp file containing both parts of this exercise in the P5 dropbox.