HIP 3 Ph 213

You have a homogeneous sphere of radius R and total charge –Q. You drill a thin hole directly through a diameter of the sphere. When you let go of a positron at one end of a hole, the positron oscillates back and forth through the diameter of the sphere. Find the period of oscillation of the positron.

Extra Credit – Choose One of the Below:

* Modify last week’s program to show the E-field of a ring of charge in 3-D at many points in space.
* Modify last week’s program to simulate this week’s hand-in-problem.

Goals of this chapter are to:

* Understand the concept of Electric Field Flux
* View charges as “sinks” and “sources” of Electric Field
* Be able to solve problems using Gauss’ Law

Gauss’ Law:

