PHYC 511: Electrodynamics

Spring 2019

Homework Assignment #3

(Due February 25, 2019)

1- Problem 4.7, parts (a) and (b), Jackson.

2- Problem 4.8, parts (a) and (c), Jackson.

3- A conducting sphere of radius a carrying charge Q is surrounded by a dielectric shell of thickness $b - a$ and dielectric constant ϵ/ϵ_0. What is the $\vec{E}$ field everywhere? Find the induced bound charges at the interfaces.

4- Problem 4.10, Jackson.

5- Problem 5.3, Jackson.