

PHYC 511: Electrodynamics

Spring 2019

Homework Assignment #1

(Due January 30, 2019)

1- Consider a charge q at the origin surrounded by uniform surface charge and dipole layer densities at the surface of a sphere with radius R (centered at the charge q). Find the charge and dipole densities that lead to zero electric potential outside the sphere while keeping it unchanged inside from that of the point charge alone.

2- Problem 1.5, Jackson.

3- Problem 1.11, Jackson.

4- Problem 1.12, Jackson.

5- Problem 1.13, Jackson.