

Physics 5B (Spring 2023): Homework #2

Please submit on online before 6:00 pm on Monday, February 6, 2022.

Problem 1.50 Field at center of charged hemispherical surface. Combine integration over the charge distribution with a symmetry argument.

Exercise 1.56 Using symmetry to find the flux through the surface of a cube arising from a point charge at different locations.

Exercise 1.69 Using Gauss' Law and superposition to find the electric field of carved out sphere.

Exercise 1.74 More Gauss' Law plus superposition.

Exercise 1.77 Two protons in a uniform sphere of electron jelly. Where are the protons so that the force on them is zero? Coulomb plus Gauss' Laws.