Homework 8
Physics 313
Fall 2026

Due Tuesday 3 November 2026, 12:30 PM, as an upload to ELMS

All problems are from Griffiths *Introduction to Electrodynamics* 5th Edition

1) **Griffiths Problem 4.11 [Electric field of bar electret]**

2) **Griffiths Problem 4.15 [Polarized spherical shell]**

3) **Griffiths Problem 4.17 [Continuation of problem 4.11 with sketches]**

4) **Griffiths Problem 4.18 [2-layer capacitor D, E, P, bound charges] Hint: Start with Gauss' law for the electric displacement using a cylindrical Gaussian surface that includes the dielectric on one side and the vacuum outside.**

5) **Griffiths Problem 4.23 [Self-consistent solution for E and P inside a sphere]**

6) **Griffiths Problem 4.36 [Free point charge at the center of a dielectric sphere]**