

Assignment 6
PHGN361

Homework due Feb. 27

1. Read section 4.1.3 through 4.4.1.
2. problems chapter 4: 4, 9, 10, 11, 14, 17, 18.
3. A sphere of radius R has dipoles glued into it with dipole moment per unit volume $\vec{P}(\mathbf{r})$. (a) Explain in words and no more than 5 equations how you would calculate \mathbf{E} everywhere using the displacement vector formalism. (b) Explain in words and no more than 5 equations how you would do this calculation using the bound charge formalism.