1. Griffiths: Problem 2.5

2. Griffiths: Problem 2.9
   Note: This problem requires that you compute the divergence of a function in spherical coordinates and also integrate a charge distribution in spherical coordinates. You may want to review Section 1.4.1. The inside cover of your book contains expressions for both $\nabla$ and $d\tau$ (a infinitely small volume element) in spherical coordinates.

3. Griffiths: Problem 2.10
   Hint: Think of this cube as a smaller part of a more symmetric system.

4. Griffiths: Problem 2.15

5. Griffiths: Problem 2.16

6. Griffiths: Problem 2.17

7. (a) Use Gauss’ Law to prove that the electric field $E$ at every point inside of a spherical shell of charge $Q$ is zero. Be sure to justify each step.
   (b) Now imagine a hollow cube (a box) that has a uniform charge $Q$. Can a similar proof be used to argue that the electric field everywhere inside the box is zero? If not, where does the proof break down?

8. Griffiths: Problem 2.23

9. Griffiths: Problem 2.26