All the numbered problems are from the text book by Griffiths.

1. Problem 1.38

2. Problem 2.10. The hard way to do this problem is to actually evaluate the surface integral. The computationally easy way is to first think of the given asymmetric arrangement as being part of a more symmetric one. Then exploit symmetry.

3. Consider a sphere of radius $R$ with a uniform charge density $\rho$. Calculate the Electric field at a distance $r$ from the center of the sphere. Sketch $|E|$ as a function of $r$. Be sure to show the relevant field and distance scales on the axes of the plot.

4. Problem 2.16

5. Problem 2.17