Assignment 5; Phys 191                                    Name _____

**1.** **(60 points)** Use Gauss's Law to determine the electric field of a solid, uniformly charged sphere (total charge $Q$, radius $R$) at all points both inside and outside the sphere. Make sure to explain how you (1) use symmetry (2) determine flux and (3) find enclosed charge.

**2. (40 points)** In class, we did part of the work to determine the electric field produced by an infinite line with uniform charge density $\lambda$, and the infinite plane with uniform charge density $\sigma$. Using Gauss's Law, finish the job for each.