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<center>Project Proposal</center>

I've decided to go with a problem from the book from chapter 3–problem 3.47. This problem is essential because it comes up a lot in chapter 3 and in order to solve it we must use everything that we have learned up to that point, including Coulomb's law and Gauss's law. It's simple but it takes time and patience to get to the final result. We must first find the average electric field throughout the sphere. This problem is a clever way to show how two situations are the exact same and by situations, I mean one where there's a single positive q and another with a negative q. The problem has different parts, two ask to find the result in a different way, and the others ask to solve things that are often brought up throughout the chapter in different problems. I would have to dedicate more time to this problem to understand it completely but for now, that's all I know I have to do.