

Homework 19 for September 30 2008

Due 8AM on September 30 2008

Physics 221 with Professor Jeff Terry

1. When a potential difference of 150V is applied to the plates of a parallel-plate capacitor, the plates carry a surface charge density of 30 nC/m^2 . What is the spacing between the plates?
2. Two capacitors of 5.0 microfarads and 8.0 microfarads are connected in series to a 24-V battery. What is the potential difference across each capacitor? What if they were connected in parallel?