Name: _____ Lab Section: _____ Date: _____

Prelab: E-Fields

Instructions: Prepare for this lab activity by answering the questions below. Note that this is a **Pre**Lab. It must be turned in at the start of the lab period. Time cannot be given in lab to perform PreLab activities. After the start of lab activities, PreLabs cannot be accepted. Explain your answers. Points will be taken off if your work is not neat and well organized.

1. (5 points) (What is an electric field line? What are equipotential surfaces? Are they necessarily physical surfaces?

2. (5 points) A map of equipotential curves has places in which the curves are much closer together than in other regions. Is the field strong or weak where the curves are close together? Explain why.

3. (5 points) If two electrodes have a source of potential difference of 100V connected to them, how many equipotential surfaces exist in the space between them?