Homework 7 for September 9 2008 Due 8AM on September 10 2008 Physics 221 with Professor Jeff Terry

Thank you to every one who has responded to the test email. Those of you who have done so should start receiving a weekly grade report. If you haven't responded yet, no worries... but please be sure to do so. If you did not receive the test email, let me know so I can rectify the situation.

- 1. What are the magnitudes and directions of the electric field that will balance the weight of (a) an electron?
- 2. (b) a proton?

(In other words, assume that the particle is at the surface of the Earth and experiences two forces: the gravity of the Earth and the force from the electric field and we want the particle to experience 0 net force.)