Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Date:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Period:\_\_\_\_\_\_\_\_\_\_\_

PP D – Electric Field Strength – p. 575

1. A charge of q1 = 5.00 μC, is at the origin, and a second charge q2 = -3.00 μC is on the x-axis 0.800 m from the origin. Find the electric field at a point on the y-axis 0.500 m from the origin.

1. A proton and an electron in a hydrogen atom are separated on the average by about 5.3 x 10-11 m. What is the magnitude and direction of the electric field set up by the proton at the position of the electron?
2. An electric field of 2.00 x 104 N/C is directed along the position x axis.
3. What is the electric force on an electron in this field?
4. What is the electric force on a proton in this field?