Ch 19 HW Quiz #1A

A proton is located at the origin moving in the +y direction with a speed of 3.70×10^6 m/s. By the time the proton reaches the coordinate y = 3.44 meters, its speed has dropped to a new value of 1.20×10^6 m/s. Assume the electric force is the only relevant force in this problem. There is a uniform electric field throughout the region in which the proton is moving. See the formula sheet if you need to look up the properties of a proton.

a)   If the voltage at the origin is assumed to be 0.00 Volts, what is the voltage at the coordinate of y = 3.44 meters?
b)   What is the magnitude and direction of the electric field in this region?