EECS 221

S.P. 3-D

Consider a "world" in which there are two (and only two) point charges. $Q_1 = 2$[pC] is located at P_1(3,-2,0) [cm] and $Q_2 = -6$[pC] is located at P_2 (-4,1,1) [cm].

What is the voltage V_{ab} between the points at P_a(5,-1,0) [cm] and at P_b(-5,-2,1) [cm]?

S.P. 3-E

The potential function in a region of space is given by $V(\mathbf{r}) = V_o x^3 y^2 z$, where $V_o = 6$ [V] and x, y, and z are in meters. Find the charge Q contained in a cube, centered at the origin with 1 [cm] sides that are parallel with the coordinate axes.