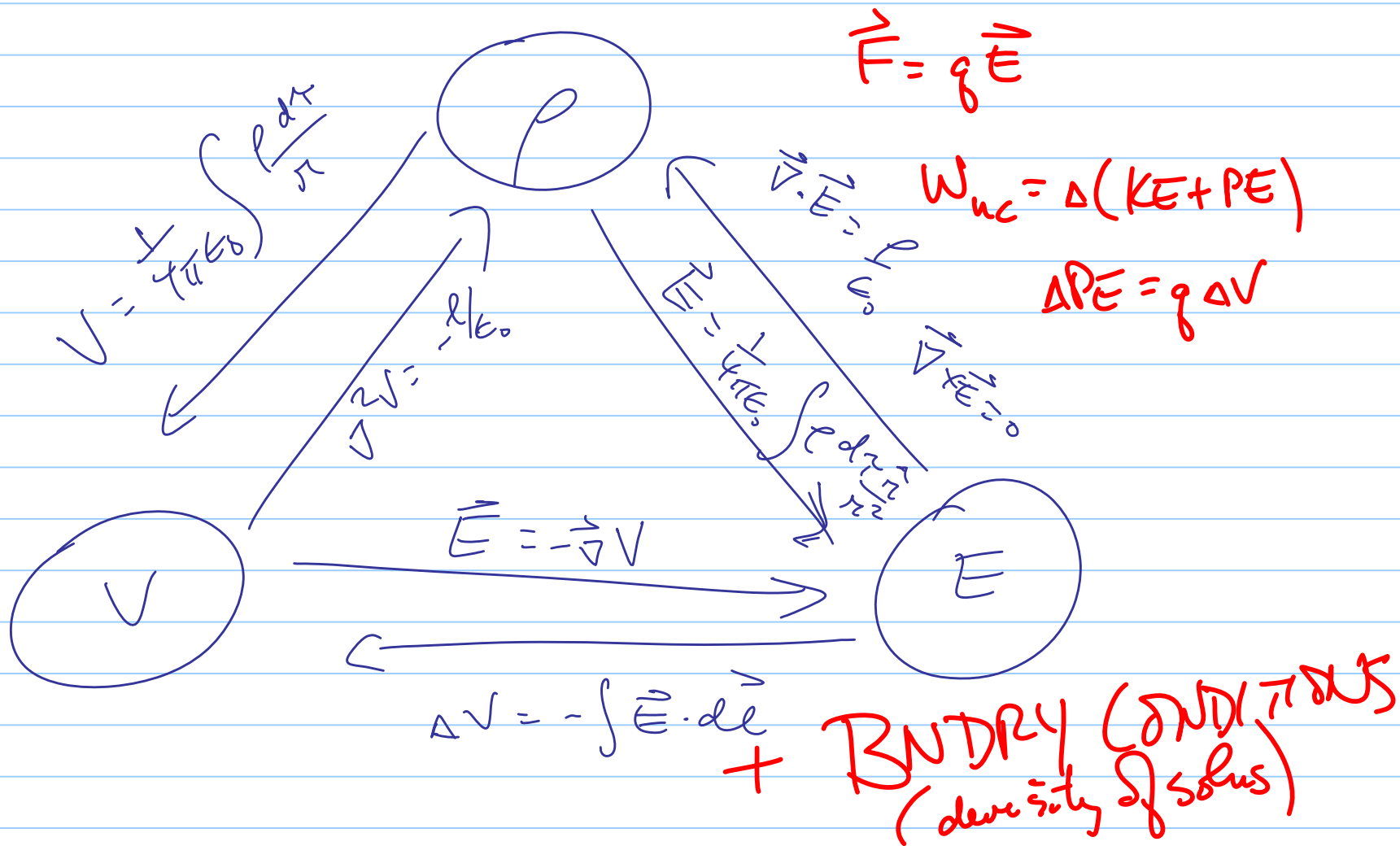
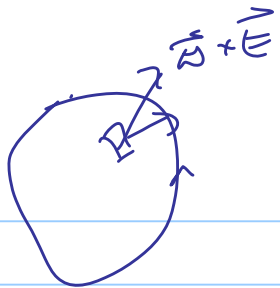


Lecture 7

Note Title

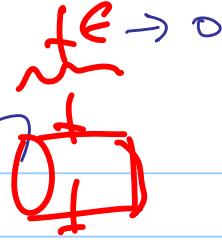
1/25/2006





$$- E_{\perp}^{\text{Left}} A + E_{\perp}^{\text{Right}} A = \frac{\sigma A}{\epsilon_0}$$

(45°)
 $\epsilon_0 E_{\perp}$



$$E_{\perp}^{\text{Left}} - E_{\perp}^{\text{Right}} = 0$$

∞ sheet of paper uniformly charged

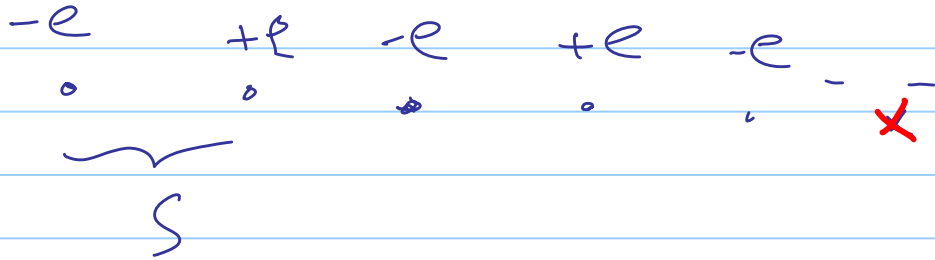
$$\nabla \cdot \vec{E} = \rho / \epsilon_0 \quad \nabla \times \vec{E} = 0$$

$\vec{E} ?$

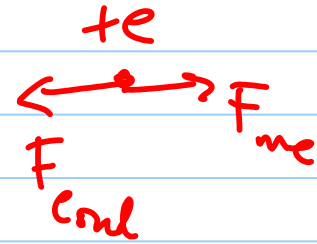
$$\int_{\text{closed}} \vec{\nabla} \times \vec{E} \cdot d\vec{a} = \int \vec{\nabla} \cdot \vec{E} \cdot d\vec{a} = 0$$

$$\int \vec{E} \cdot d\vec{a} = \frac{Q_{\text{enc}}}{\epsilon_0}$$

NaCl



$$W_{me} = \Delta PE$$



$$W_{coulomb} = -\Delta PE$$