## Quick reminder:boundary conditions on V when crossing a plane of charge

$$\vec{E}_{above} = \frac{\sigma}{2\epsilon_0}\hat{z} \qquad \vec{E}_{below} = -\frac{\sigma}{2\epsilon_0}\hat{z}$$

$$\frac{\partial V_{above}}{\partial z}\hat{z} = -\vec{E}_{above} \qquad \frac{\partial V_{below}}{\partial z}\hat{z} = -\vec{E}_{below}$$

$$\left(\frac{\partial V_{above}}{\partial z} - \frac{\partial V_{below}}{\partial z}\right) = \frac{-\sigma}{\epsilon_0}$$