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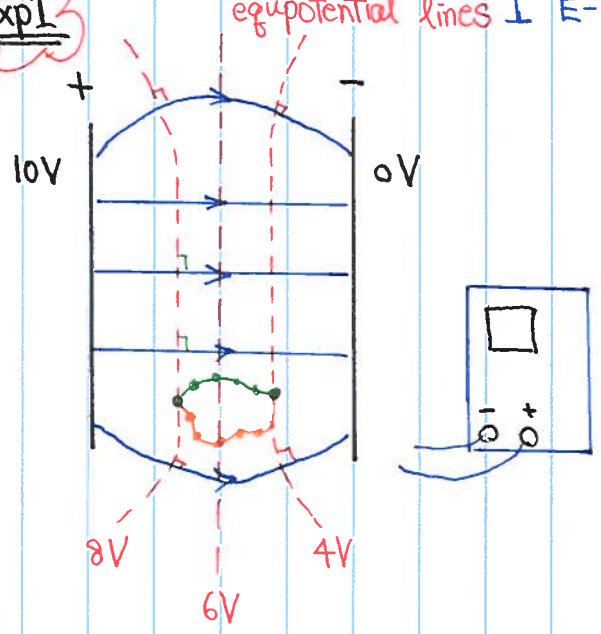
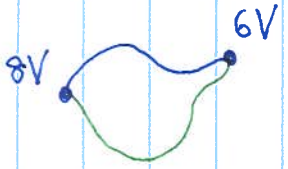
Jargon: potential ⇔ voltage.

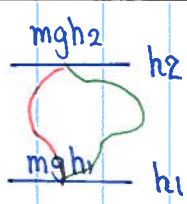
Lab 1

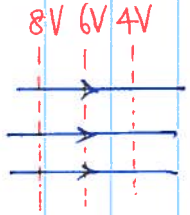
Exp1





⇔





$W = \vec{E}\cdot\vec{d} = q\Delta V$

$\Rightarrow E d\cos\theta = 0$

↑ equipotential $\Delta V = 0$

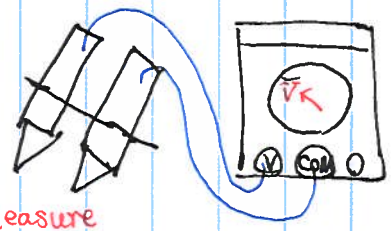
$\Rightarrow \theta = 90^\circ$

$W = -\vec{F}\cdot\Delta d \Rightarrow \Delta V = -E_{\parallel}\Delta d$

① ΔV = max ⇒ along $\vec{E}$ line

② $\Delta V = 0$ ⇒ along equipotential

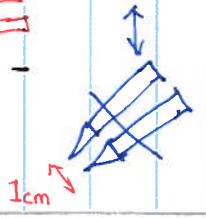
How we measure?



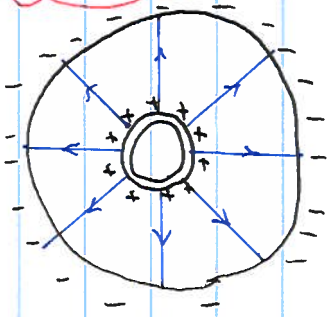
Exp2

find ΔV_{max} for $\vec{E}$

$\vec{E} = \frac{\Delta V}{\Delta d}$



Exp3



Tips

① Immerse paper in water!!

② Level the tray!!

③ foggy side of paper should be up.