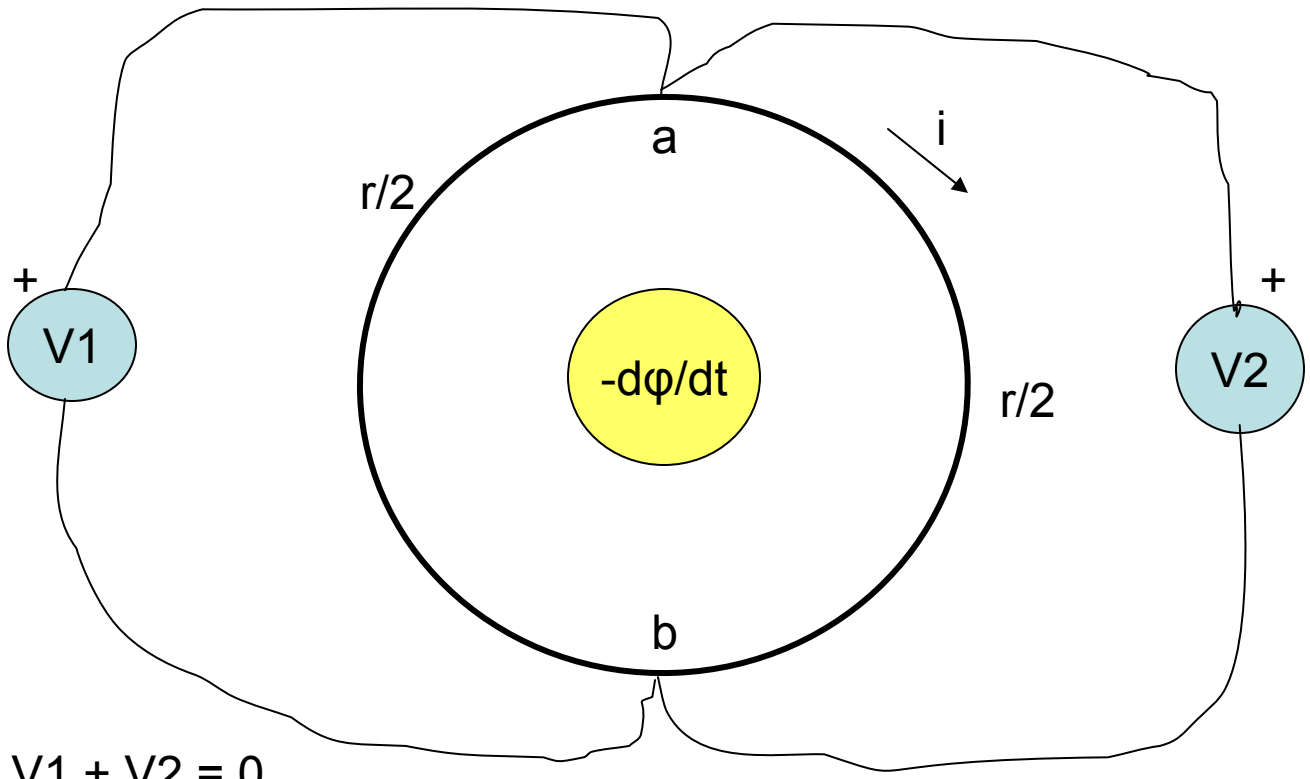
Current i = emf/3r

emf = $-\partial\varphi/\partial t$

Single-turn coil of uniform reistance r.



V1 + V2 = 0

But then V1+V2 = $\int \mathbf{E}\, d\mathbf{l}$ around loop = = 0?

Which is false since $\int \mathbf{E}\, d\mathbf{l}$ around loop = emf.

So V1 and V2 can't be voltages since voltages must add to 0 around any loop Cf. Kirchhoff.