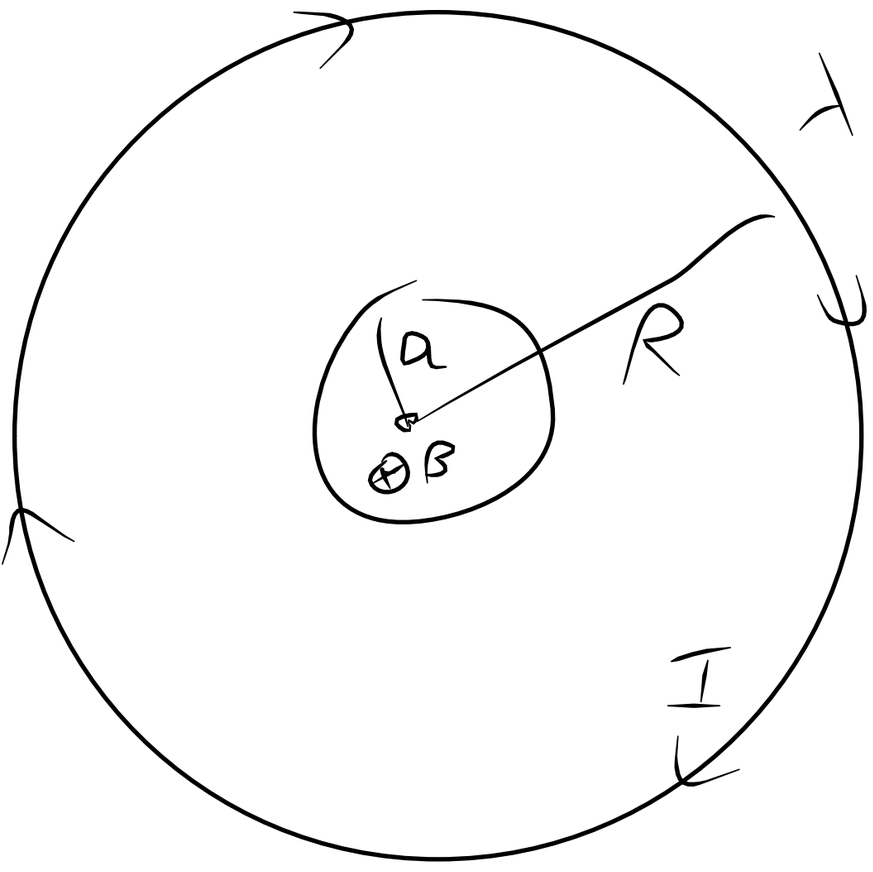

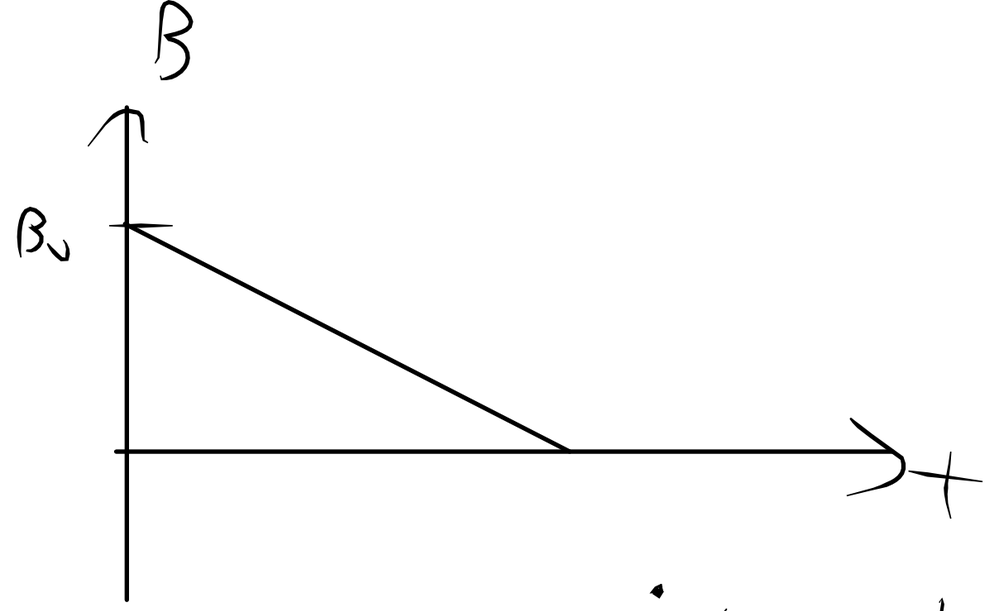

$$B = B_0 + \dot{B} t \qquad -t_k \dot{B} = B_0$$

$$d\phi_B = \pi a^2 \, dB$$

$$\oint \vec{E} \cdot d\vec{l} = \frac{-d\phi_B}{dt}$$

$$2\pi R \, E = -\pi a^2 \dot{B}$$

$$E = \frac{-a^2}{2R} \dot{B}$$

$$M = E q r = -R \frac{a^2}{2R} \dot{B} \lambda 2\pi R = -\pi a^2 \lambda R \dot{B}$$

$$L = M t = \pi a^2 \lambda R (-\dot{B} t) = \pi a^2 \lambda R B_0$$