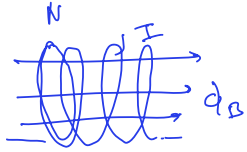


$$I = \frac{\varepsilon}{R} \quad t \rightarrow \infty$$

$\varepsilon_L$  Self-Induction.

↳ Self-induced Emf



$\varepsilon_L \propto \frac{dI}{dt}$  ,  $\varepsilon_L = -L \frac{dI}{dt}$

$$\varepsilon_L = -N \frac{d\phi_B}{dt} ; \quad L \frac{dI}{dt} = N \frac{d\phi_B}{dt} , \quad L = N \frac{d\phi}{dI}$$

$$L = - \frac{\varepsilon_L}{\frac{dI}{dt}}$$

$$LI = N \phi_B$$

$$L = \frac{N \phi_B}{I}$$

$$L = N \frac{\phi}{I}$$

$$R = \frac{V}{I}$$

SI: Henry, H, , 1H = 1V s/A