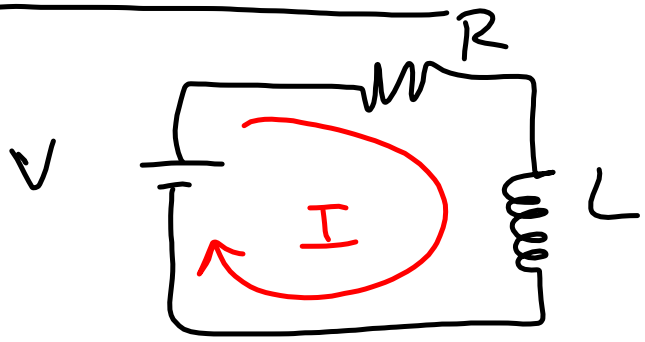
RL CIRCUITS



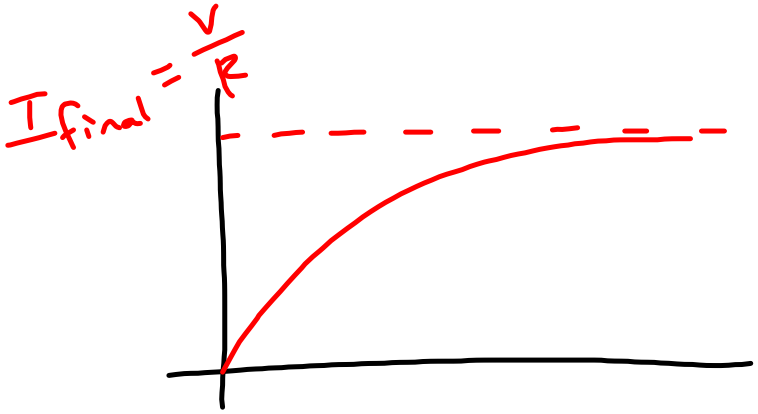
CHARGING

$$+V - IR - L\frac{dI}{dt} = \emptyset$$

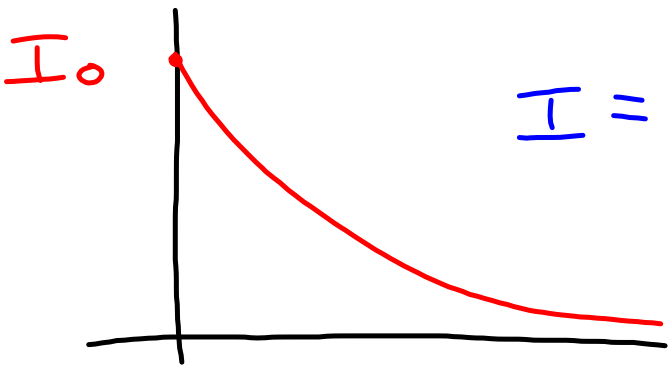
inductance

$$I = \frac{V}{R}\left[1 - e^{-(R/L)t}\right]$$

$$= I_{final}\left[1 - e^{-(R/L)t}\right]$$



DISCHARGING



$$I = I_0 e^{-(R/L)t}$$

KNIGHT → ch. 30

Ex. 30.16

35

49