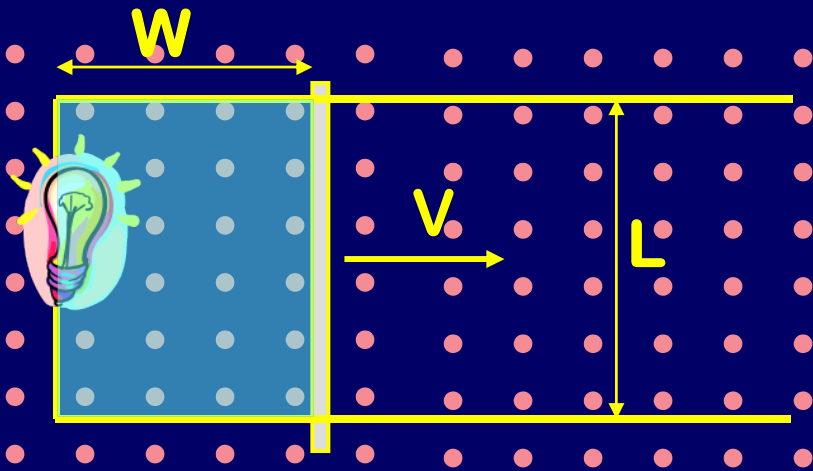
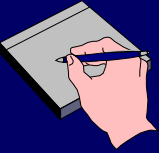
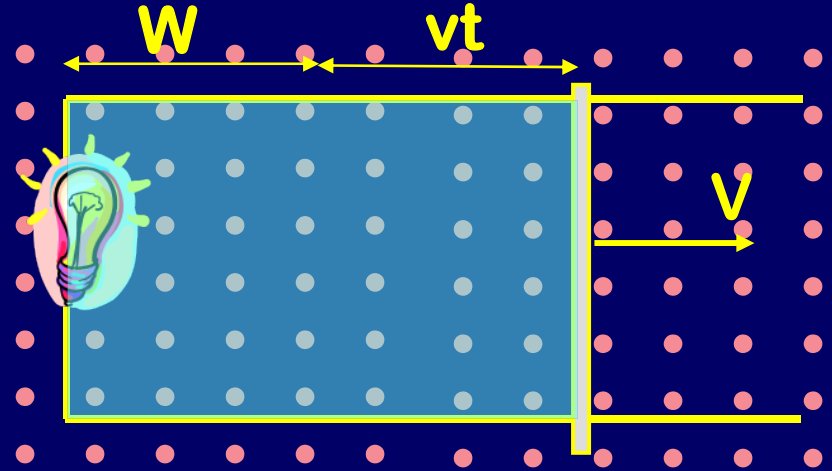


Example

Faraday: Change Area



$$t=0$$
$$\Phi_0 = BLW$$



$$t$$
$$\Phi_t = BL(W + vt)$$

$$\Phi = B A \cos(\theta)$$

$$\text{EMF Magnitude: } |\varepsilon| = \frac{\Delta\Phi}{\Delta t} = \frac{\Phi_f - \Phi_i}{t - 0} = \frac{BL(w + vt) - BLw}{t - 0} = BLv$$

What about the sign of the EMF?