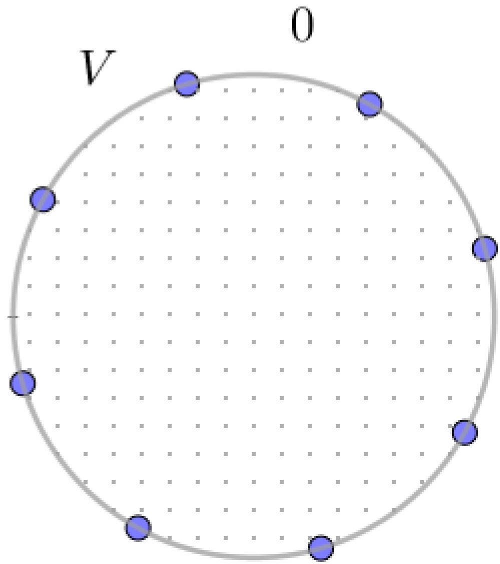
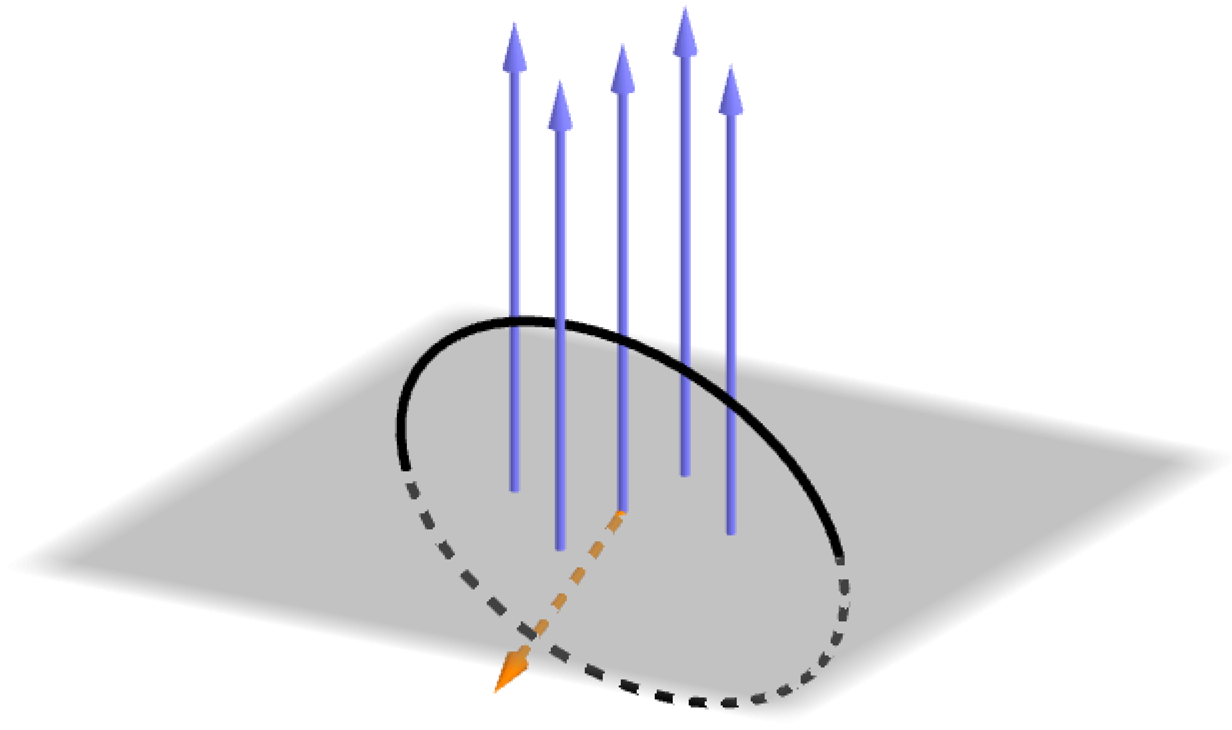


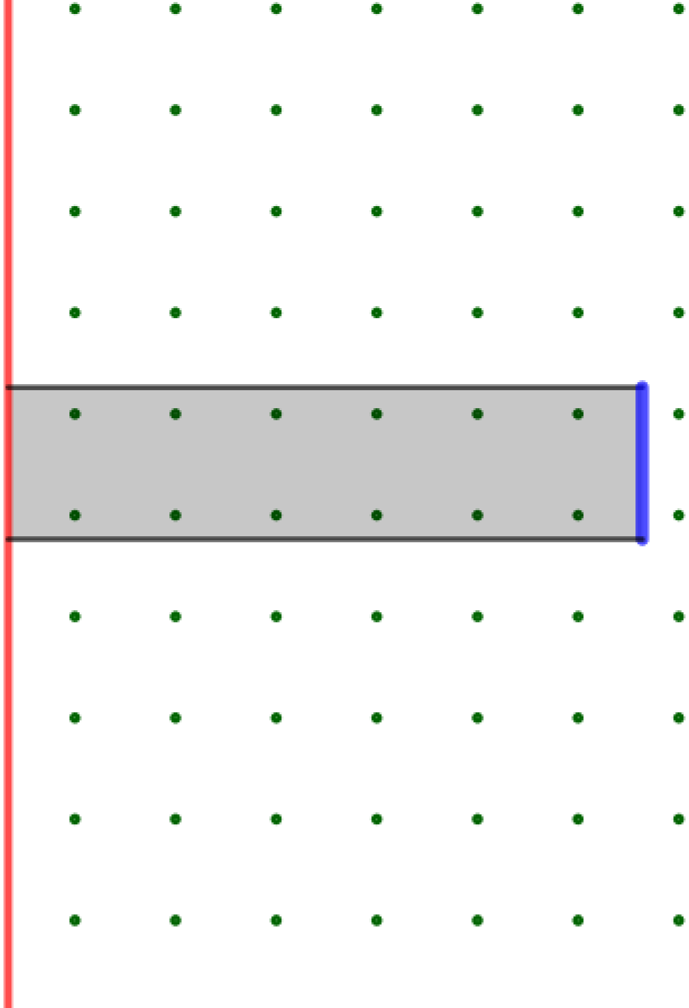
0
V

$$\Phi_B = \int B \cdot ds$$

$$\epsilon = -\dot{\Phi}_B \ (Lenz's\ law)$$

$$\epsilon \Rightarrow \dot{B} \neq 0 \ , \ \dot{S} \neq 0 \ , \ \dot{\theta} \neq 0$$





$$\Phi_B = \int B \cdot ds$$

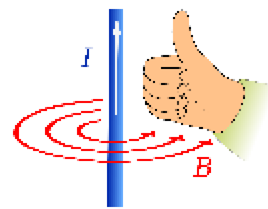
$$\epsilon = -\dot{\Phi}_B \; (Lenz's\ law)$$

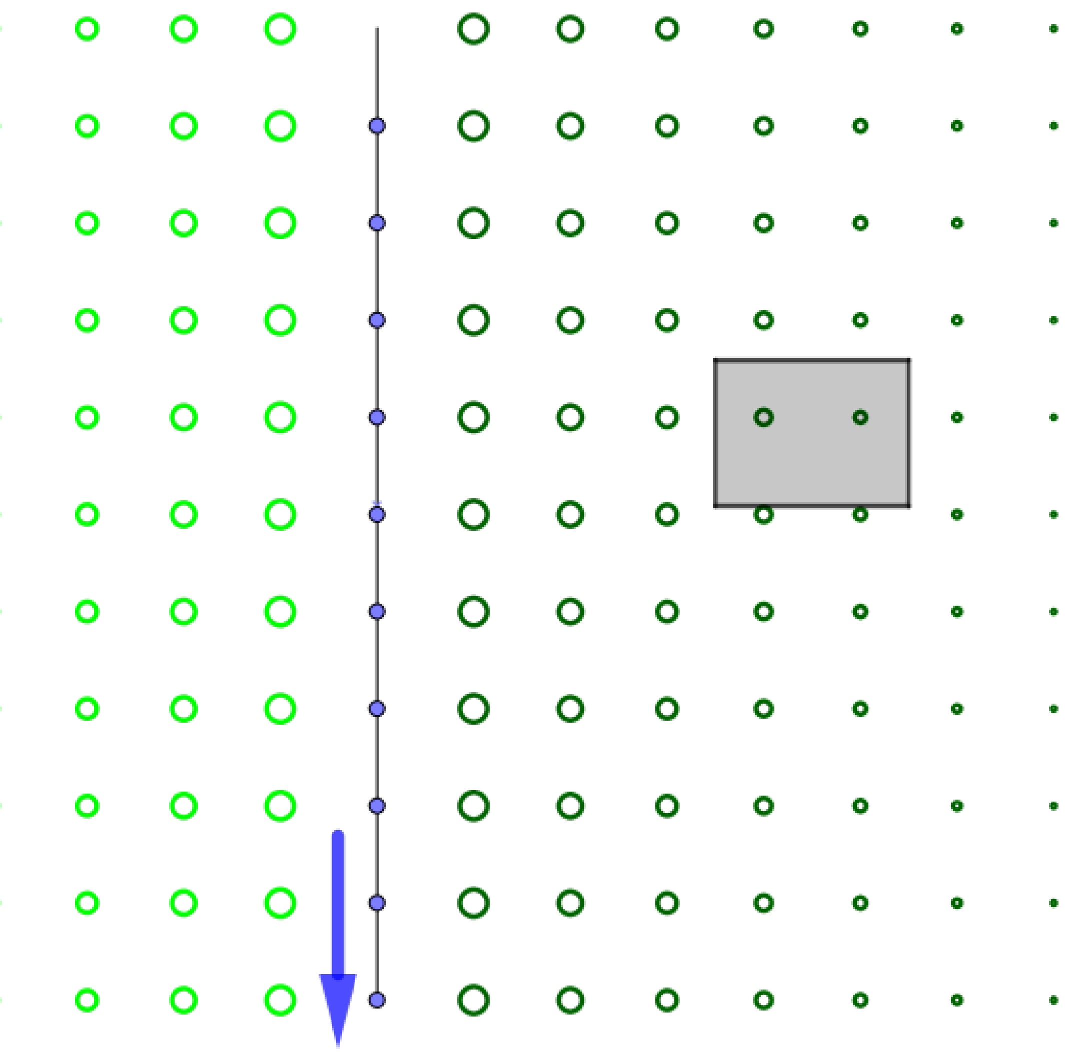
$$\Phi_B \Rightarrow \dot{B} \neq 0 \;,\; \dot{S} \neq 0 \;,\; \dot{\theta} \neq 0$$

$$\Phi_B = b \cdot (a + v_0 t) \cdot B$$

$$x_{(t)} = a + v_0 t$$

$$\boldsymbol{\epsilon = \dot{\Phi}_B = b \cdot B \cdot v_0}$$





$$\Phi_B = \int B \cdot ds$$ $$\vec{B}_{(r)\hat{\theta}} = \frac{I}{r}$$

$$\epsilon = -\dot{\Phi}_B$$

$$\Phi_B \Rightarrow \dot{B} \neq 0 \ , \ \dot{S} \neq 0 \ , \ \dot{\theta} \neq 0$$

$$\Phi_B = \int_h^{h+b} \int_r^{r+a} (\frac{I}{r}) dr \cdot dz = Ib \cdot ln(\frac{r+a}{r})$$

$$r_{(t)} = v_0 t$$

$$\Phi_B = Ib \cdot [ln(v_0 t + a) - lan(v_0 t)]$$

$$\boldsymbol{\epsilon = \dot{\Phi}_B = Ib(\frac{v_0}{v_0 t + a} - \frac{v_0}{v_0 t})}$$

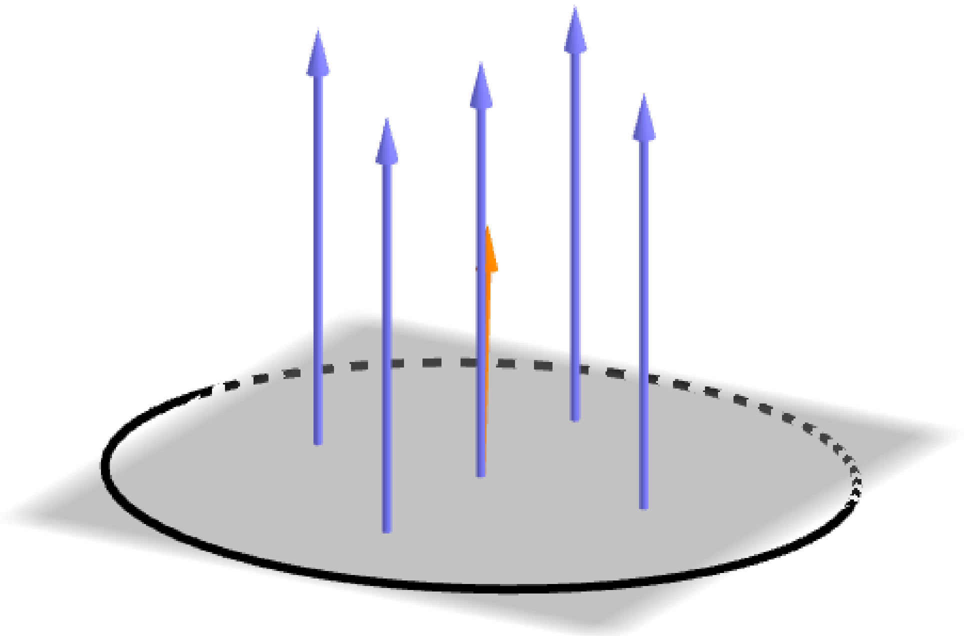
$$\Phi_B = \int B \cdot ds$$

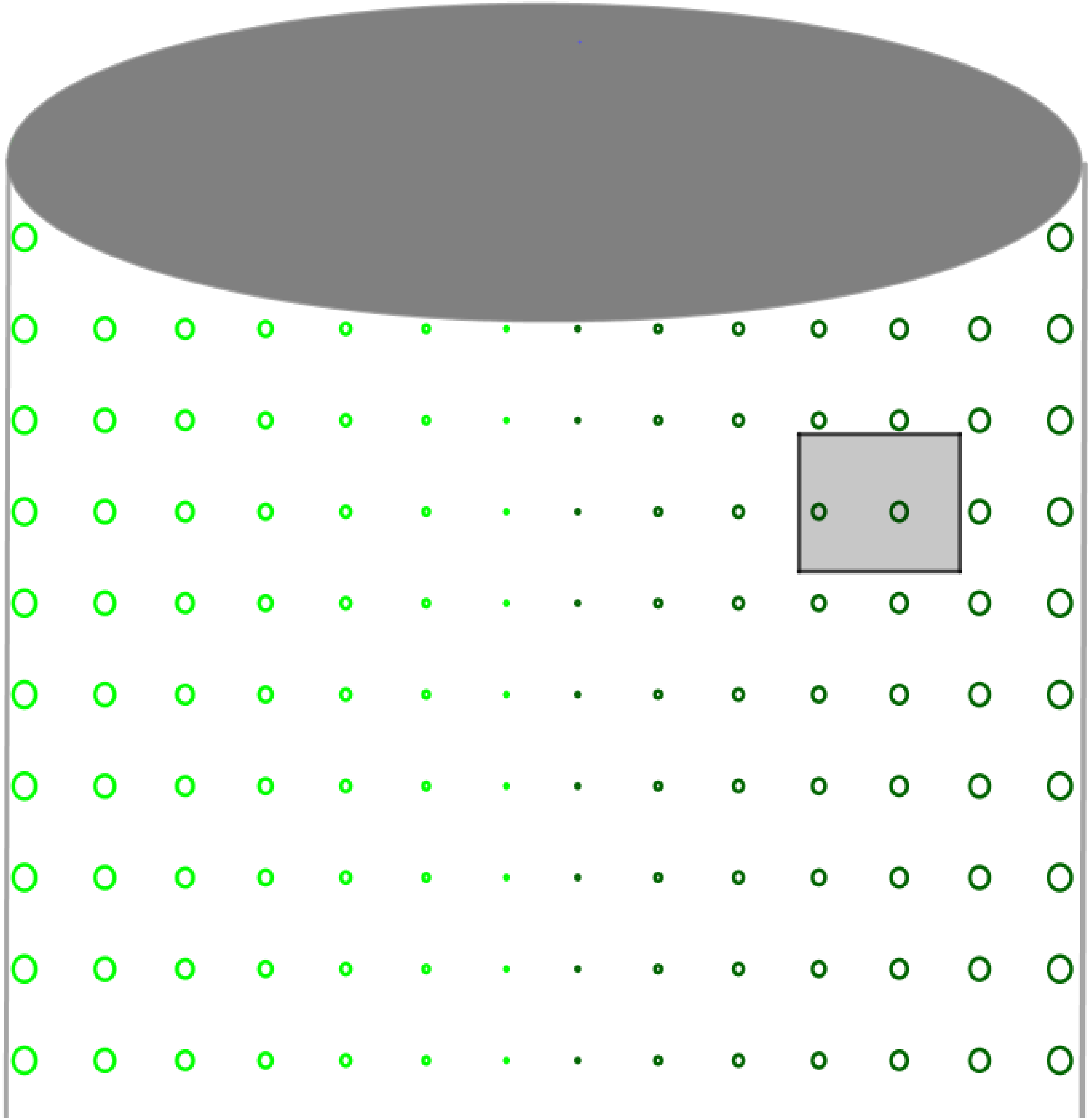
$$\epsilon = -\dot{\Phi}_B \; (Lenz's\ law)$$

$$\dot{\Phi}_B \Rightarrow \dot{B} \neq 0 \;,\; \dot{S} \neq 0 \;,\; \dot{\theta} \neq 0$$

$$\Phi_B = \pi R^2 \cdot B \cdot cos(\omega t)$$

$$\boldsymbol{\epsilon = \dot{\Phi}_B = \pm \pi R^2 \cdot B \cdot \omega \cdot sin(\omega t)}$$





$$\vec{B}_{(r)\hat{\theta}} = \frac{I}{R^2} r$$

$$\Phi_B = \int B \cdot ds$$

$$\epsilon = -\dot{\Phi}_B$$

$$\Phi_B \Rightarrow \dot{B} \neq 0 \ , \ \dot{S} \neq 0 \ , \ \dot{\theta} \neq 0$$

$$r_{(t)} = v_0 t$$

$$\Phi_B = \int_h^{h+b} \int_r^{r+a} (\frac{I}{R^2} r) dr \cdot dz =$$

$$\Phi_B = \frac{Ib}{2R^2} [(r+a)^2 - (r)^2)]$$

$$\Phi_B = \frac{IB}{2R^2} (a^2 + 2ra)$$

$$\Phi_B = \frac{Iba}{2R^2} (a + 2 \cdot v_0 t)$$

$$\boldsymbol{\epsilon = \dot{\Phi}_B = \frac{Iba}{R^2} v_0}$$