



$$\mathcal{E} = \left| \frac{d\Phi_m}{dt} \right|$$

$$\Phi_m = N (\vec{B} \cdot \vec{A}) = NBA \cos \theta$$

So

$$\mathcal{E} = \left| \frac{d}{dt} (NBA \cos \theta) \right| = NA \cos \theta \left| \frac{dB}{dt} \right|$$

$$\therefore \mathcal{E} = N \pi \left(\frac{d}{2} \right)^2 \cos \theta \left| \frac{1.5 \text{ T} - 0.5 \text{ T}}{0.6 \text{ s}} \right|$$

$$= 0.0262 \text{ V} \Rightarrow I = \frac{\mathcal{E}}{R} = \underline{0.262 \text{ A}}$$

What is the direction of I ?

Flux is increasing $\Rightarrow \vec{I}$ in opposite \vec{B}

$\therefore I$ is ccw looking down.