

$$A = (.05 \text{ m} \times .08 \text{ m}) = .004 \text{ m}^2$$

$$n = 75 \text{ coils}$$

$$R = 8.0 \Omega$$

$$I = .10 \text{ A}$$

Find $\mathcal{E}$:

$$\begin{aligned}\mathcal{E} &= I \cdot R \\ &= (.10 \text{ A} \times 8.0 \Omega)\end{aligned}$$

$$\mathcal{E} = .80 \text{ V}$$

Find $\Delta B / t$:

$$\mathcal{E} = n \cdot \frac{\Delta \Phi}{\Delta t} = \frac{n \cdot (A) \cdot \Delta B}{\Delta t}$$

$$(.80 \text{ V}) = 75 \cdot (.004 \text{ m}^2) \cdot \frac{\Delta B}{\Delta t}$$

$$\frac{\Delta B}{\Delta t} = 2.6 \text{ T/sec}$$