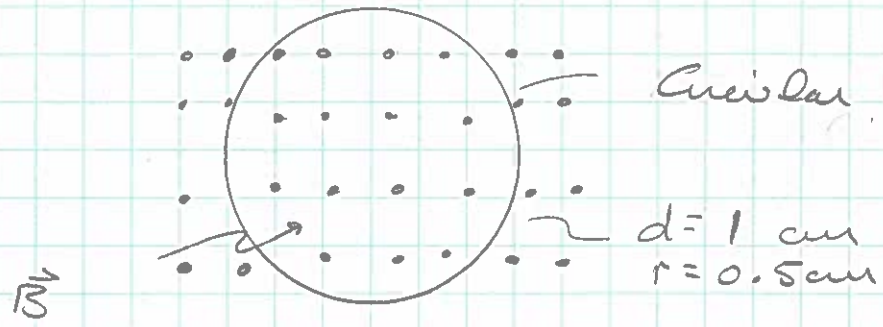

B increases from 100T → 300T in Δt = 10ms.

Find EMF in loop:

$$\mathcal{E} = \left| \frac{d\Phi_m}{dt} \right| = \frac{d}{dt} \left| \vec{B} \cdot \vec{A} \right| = \frac{d}{dt} |BA| = A \left| \frac{dB}{dt} \right|$$

So: $\mathcal{E} = \pi r^2 \left| \frac{\Delta B}{\Delta t} \right|$

$$= \pi r^2 \left| \frac{300T - 100T}{10 \times 10^{-3} s} \right|$$

$$= 1.571 \text{ V}$$