29.5

Datos

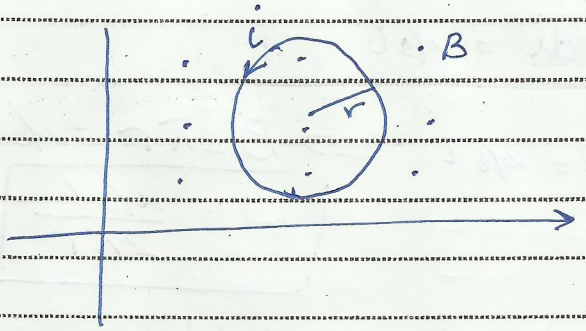
$B = 1.5\ T$

$r = 12 \cdot 10^{-2}\ m$

$t = 2 \cdot 10^{-3}\ s$

$$\mathcal{E}_i = -\frac{\Delta\Phi_B}{\Delta t} = \frac{\Phi_f - \Phi_i}{\Delta t} = \frac{0 - BA}{\Delta t}$$

$$\mathcal{E}_i = -\left(\frac{0 - (1.5)(\pi)(12 \cdot 10^{-2})^2}{2 \cdot 10^{-3}}\right) = 34\ V$$



29.10

Datos

$B = 1.1\ T$

$A = 0.1\ m^2$

$\theta = 37°$

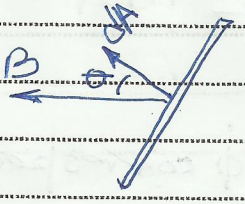
$\Delta t = 0.06\ s$

$N = 80$ espiras

$$\mathcal{E}_i = -\frac{\Delta\Phi_B}{\Delta t}$$

$$\Phi_i = BA\cos\theta = (1.1)(0.1)(0.79)$$

$$\Phi_i = 0.08\ \text{Weber}$$



$$\Phi_f = BA\cos\theta = (1.1)(0.1)(0)$$

$$\Phi_f = 0$$

$$\mathcal{E}_i = -80\left(\frac{0 - 0.08}{0.06}\right) = 106\ V$$