Workshop Handout 3

1. $\Phi_E = EA\cos\theta$

$\max[\Phi_E] = EA$

nuevo flujo: $\frac{1}{2}EA = EA\cos\theta \Rightarrow \cos\theta = \frac{1}{2} \Rightarrow \theta = \frac{\sqrt{3}}{2}$

o $\theta = 60°$

2. $\Phi_E = \frac{q_{enc}}{\varepsilon_0} = \frac{1\times10^{-6}\ \mu C}{\varepsilon_0}$

3. $\Phi_{E_2} - \Phi_{E_1} = (1000\ N/C)(\pi \cdot 0.1^2) - (6000\ N/C)(\pi \cdot 0.1^2)$

$= (5000)(\pi \cdot 0.1^2)$

4. $\Phi_E = \frac{2\mu C}{\varepsilon_0}$