

8/10/18

GRUPO 2

Cálculo de \vec{E}

$$\bullet V_p = 6V \begin{cases} x = 15,9 \text{ km} \\ y = 12 \text{ km} \end{cases} \quad \begin{matrix} \Delta x = 1 \text{ km} \\ \Delta y = 1 \text{ km} \end{matrix}$$

$$\bullet V_{p1} = 6,97V \begin{cases} \Delta x = 1 \text{ km} \\ \Delta y = 0 \text{ km} \\ \Delta V = 0,97V \end{cases}$$

$$\bullet V_{p11} = 6,37V \begin{cases} \Delta x = 0 \text{ km} \\ \Delta y = 1 \text{ km} \\ \Delta V = 0,37V \end{cases}$$

$$\bullet E_x \cong \frac{-\Delta V}{\Delta x} = \frac{-0,97V}{1 \text{ km}} \cdot \frac{100 \text{ km}}{1 \text{ m}} = -97 \frac{V}{m}$$

$$\bullet E_y \cong \frac{-\Delta V}{\Delta y} = \frac{-0,37V}{1 \text{ km}} \cdot \frac{100 \text{ km}}{1 \text{ m}} = -37 \frac{V}{m}$$

$$\bullet |\vec{E}| = \sqrt{E_x^2 + E_y^2} = \sqrt{(-97 \text{ V/m})^2 + (-37 \text{ V/m})^2} = 103,81 \text{ V/m}$$

$$\bullet \theta = \arctg \left[\frac{(-37 \text{ V/m})}{(-97 \text{ V/m})} \right] = 20^\circ 52' 44''$$