\[ E_{(0,0)} = \frac{(9 \times 10^9)(2 \times 10^{-6})}{(0.03)^2} = 2 \times 10^7 \text{ N/C (negative y)} \]

\[ E_{(0,0)} = \frac{(9 \times 10^9)(2 \times 10^{-6})}{(0.09)^2} = 1.125 \times 10^7 \text{ N/C (negative x)} \]

\[ E_{(0,0)} = \frac{(9 \times 10^9)(4 \times 10^{-6})}{(0.05)^2} = 1.44 \times 10^7 \text{ N/C} \]

break into x+y components

\[ 1.152 \times 10^7 \text{ N/C} \hat{x} + 0.865 \times 10^7 \text{ N/C} \hat{y} \]

\[ E_{\text{net}} = (1.152 \times 10^7 - 1.125 \times 10^7) \hat{x} \]
\[ + (0.865 \times 10^7 - 2 \times 10^7) \hat{y} \]

\[ E_{\text{net}} = 0.027 \times 10^7 \hat{x} - 1.135 \times 10^7 \hat{y} \]
\[ \tan^{-1}(\frac{1.135}{0.027}) = 88.6^\circ \]

below pos. x axis

\[ 1.135 \times 10^7 \text{ N/C} \]
\[ \frac{1.135}{0.027} \]