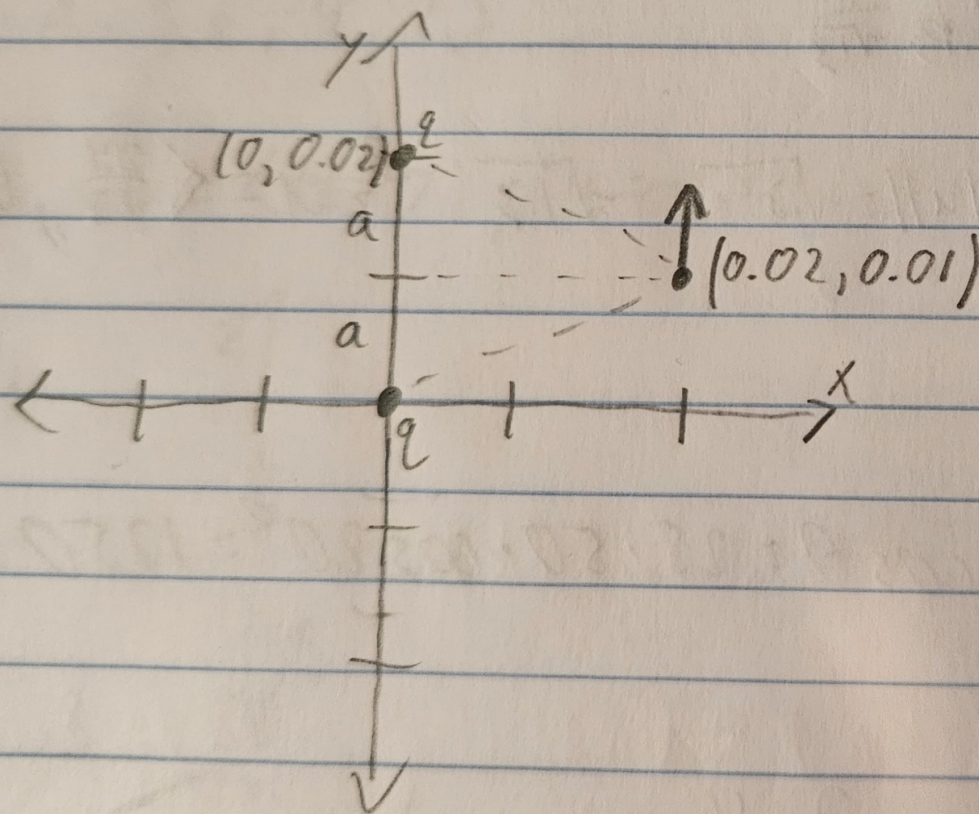


Phys. 2

9/7/23

Quiz 1

Joseph Schmitz



$$E = \frac{2aq}{4\pi\epsilon_0(a^2+y^2)^{3/2}}$$

$$a = 0.01 \quad y = 0.01 \quad q = 6 \text{ nC}$$

$$E = \frac{2(0.01)(6 \cdot 10^{-9})}{(9 \cdot 10^{-9})(0.01^2 + 0.01^2)^{3/2}}$$

$$= \frac{1.2 \cdot 10^{-10}}{2.55 \cdot 10^{-14}}$$

$$= 4700 \text{ V/m at } 90^\circ$$