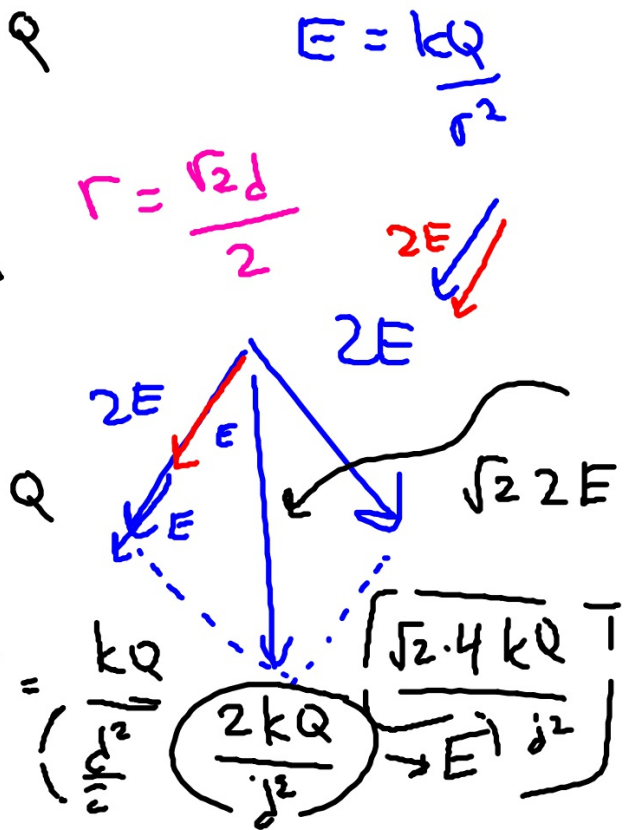
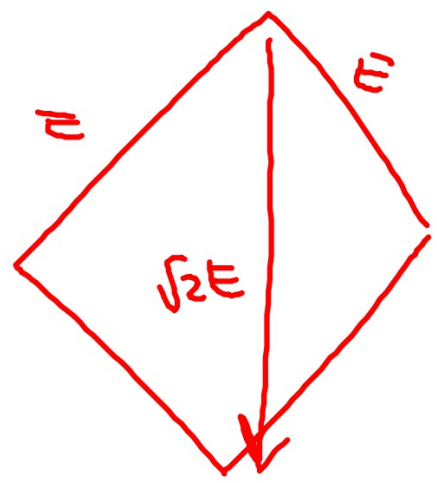
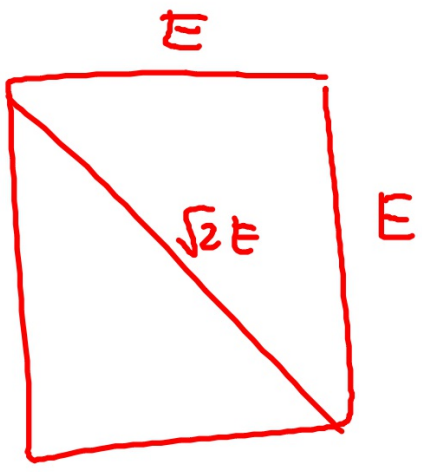


$$E = \frac{kQ}{\left(\frac{\sqrt{2}d}{2}\right)^2} = \frac{kQ}{\frac{2d^2}{4}}$$



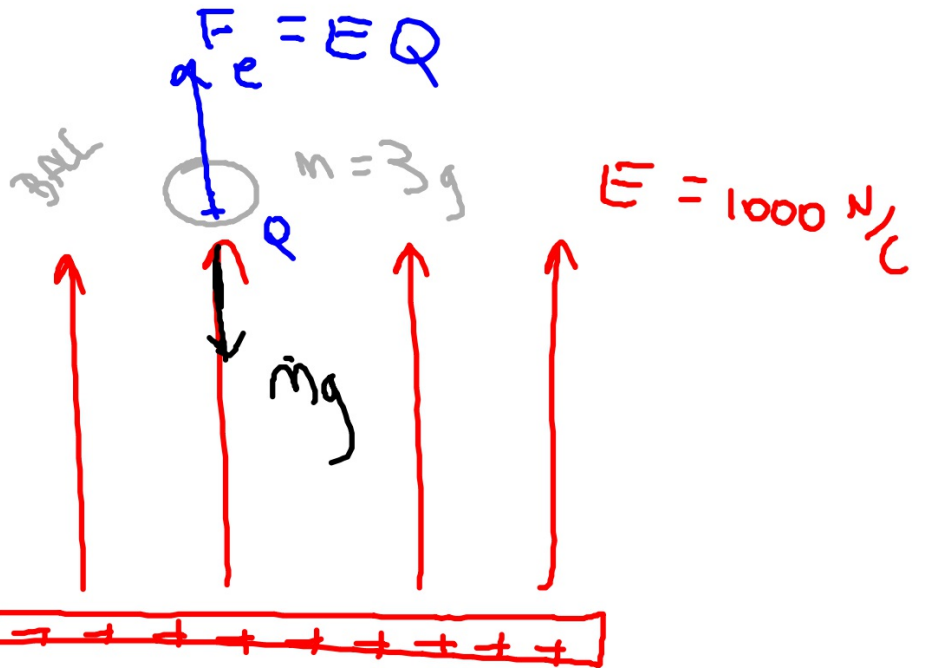


$$Q = ?$$

$$F_c = mg$$

$$EQ = mg$$

$$Q = \frac{mg}{E}$$



$$E \rightarrow \frac{.003 \text{ kg} \cdot 10 \text{ m/s}^2}{1000 \text{ N/C}} = \boxed{2.94 \times 10^{-5} \text{ C}}$$

