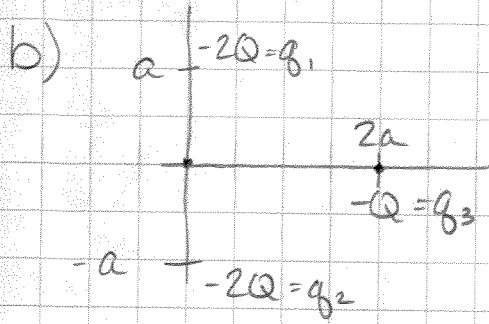




E from q_1 and q_2 will cancel out

$$E_{\text{net}} = E \text{ from } q_3$$

$$E = \frac{F}{q} = \frac{k_e \cdot q_3}{d^2} = \frac{k_e \cdot -Q}{(2a)^2}$$

$$E_{\text{net}} =$$

$$\begin{aligned} \text{c) } V &= k \cdot \sum \frac{Q}{r} = k_e \cdot \left(\frac{-2Q}{a} + \frac{-2Q}{a} + \frac{-Q}{2a} \right) \\ &= k_e \cdot \left(\frac{-2Q}{a} \cdot \frac{2}{2} + \frac{-2Q}{a} \cdot \frac{2}{2} + \frac{-Q}{2a} \right) \\ &= k_e \cdot \left(\frac{-4Q}{2a} + \frac{-4Q}{2a} + \frac{-Q}{2a} \right) \end{aligned}$$

$$V = -\frac{9 \cdot k \cdot Q}{2a}$$