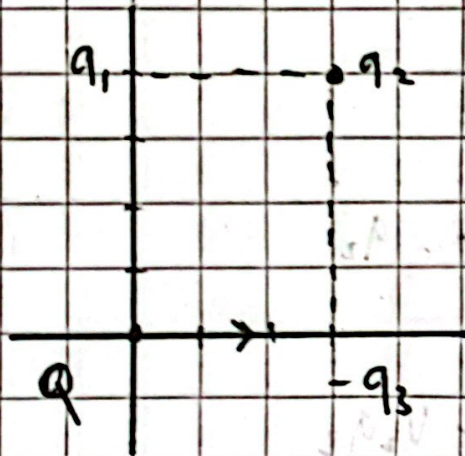


No. _____

Date: _____

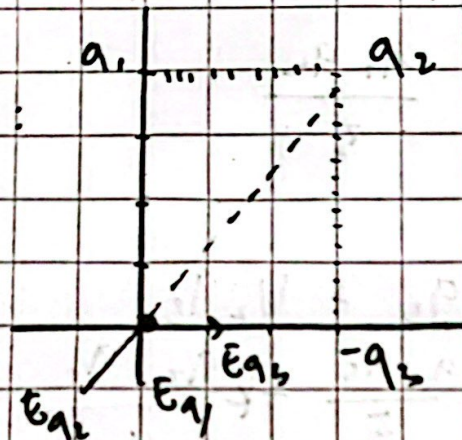
o> q_{wis}



- hitunglah medan listrik di titik $(0,0)$!
- " gaya " " $(0,0)$!
- " Potensial " " $(0,0)$!
- " usaha untuk memindahkan ke 4 muatan tersebut.

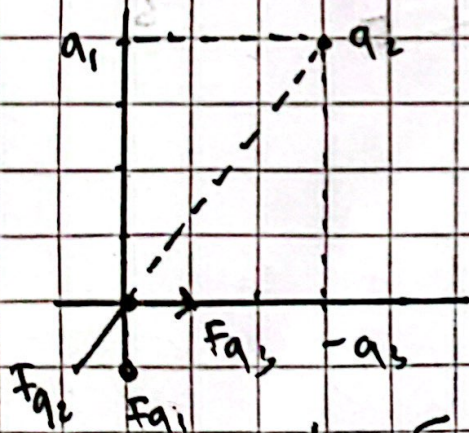
jawab :

Jawab :



$$a. \vec{E}_Q = k \left[\frac{q_1}{4^2} (-j) + \frac{q_2}{5^2} \left(\frac{-3i - 4j}{5} \right) + \frac{q_3}{3^2} (i) \right]$$

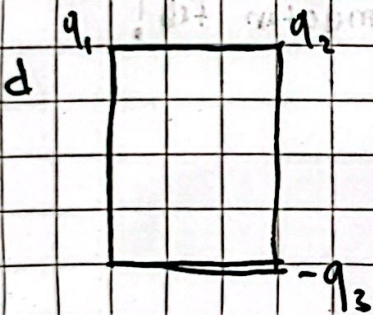
$$= k \left[(-i) \left[\frac{q_2}{5^2} \frac{-3}{5} + \frac{q_3}{3^2} \right] + j \left[\left(\frac{q_1}{4^2} \right) \frac{q_2}{5^2} - \frac{4}{5} \right] \right]$$



$$b. \vec{F}_Q = kQ \left[\frac{q_1}{4^2} (-j) + \frac{q_2}{5^2} \left[\frac{-3i - 4j}{5} \right] + \frac{q_3}{3^2} (i) \right]$$

$$V_{\text{p}} = k \left[\frac{q_1}{4} + \frac{q_2}{5} - \frac{q_3}{3} \right]$$

$$C. V_p = k \left(\frac{q_1}{4} + \frac{q_2}{5} - \frac{q_3}{3} \right)$$



$$W_1 = 0$$

$$W_2 = V_1 \cdot q_2$$

$$= k \frac{q_1 \cdot q_2}{5}$$

$$W_3 = V_1 q_3 + V_2 q_3$$

$$= k \frac{q_1 q_3}{5} + k \frac{q_2 q_3}{4}$$

$$W_{\text{total}} =$$

$$= \frac{1}{2} k \frac{q_1 q_2}{5} + \frac{1}{2} k \frac{q_1 q_3}{5} + \frac{1}{2} k \frac{q_2 q_3}{4}$$