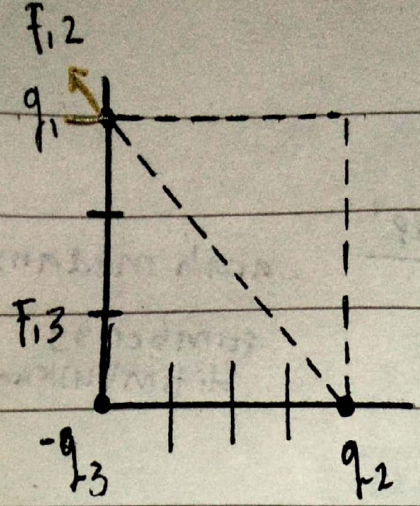
No: Date:



$$F_{13} = K \frac{q_1 q_3}{3^2}(-\hat{j})$$

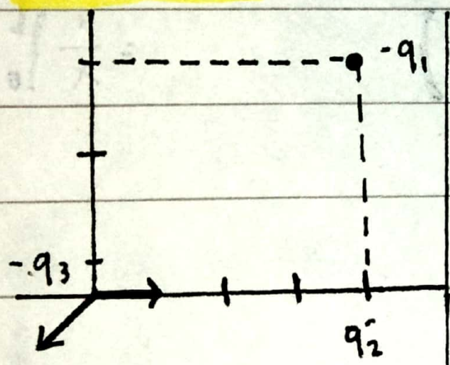
$$\frac{(0\hat{i} - 3\hat{j})}{\sqrt{0^2+3^2}}$$

$$F_{12} = K \frac{q_1 q_2}{5^2}\left(-\frac{4\hat{i}+3\hat{j}}{5}\right) \quad \sqrt{3^2+4^2}$$

5^2 dari

$$\cancel{\frac{(0\hat{i}-3\hat{j})}{\sqrt{0^2+3^2}}}$$

mencari q_2



$$\vec{F}_{31} = \frac{1}{4\pi\varepsilon} \frac{q_3 q_1}{5^2}\left(\frac{-4\hat{i}-3\hat{j}}{5}\right)$$

$$\vec{F}_{32} = \frac{1}{4\pi\varepsilon} \frac{q_3 q_2}{4^2}\hat{i}$$

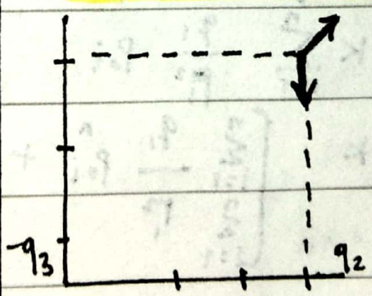
mencari $-q_3$

$$F_{13} = K \frac{q_1 q_3}{5^2}\left(\frac{4\hat{i}+3\hat{j}}{5}\right)$$

mencari $F_{21} = K\frac{q_2 q_1}{3}\hat{j}$

$$F_{23} = K\frac{q_2 q_3}{4^2}(\hat{i})$$

Kalau mencari $-q_1$



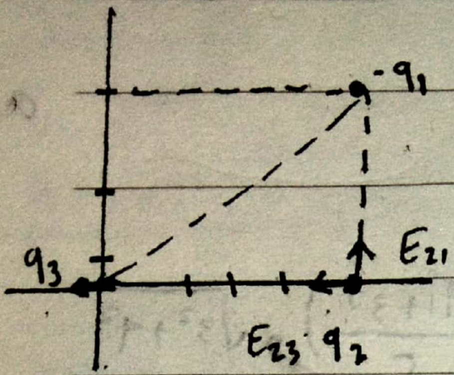
$$F_{12} = K\frac{q_1 q_2}{3^2}\left(\frac{0\hat{i} - 3\cancel{\hat{j}}}{\cancel{3\hat{j}}}\right)$$

$$F_{12} = -K\frac{q_1 q_2}{3^2}$$

NOTEBOOK

No: Date: Kalisma

~~Gaya~~ Mencari medan di q_3



$$E_{32} = \frac{F}{q_3} = k \frac{q_3 q_2 / p^2}{q_3}$$
$$= k \frac{q_2}{p^2}$$

arah medan = sumber yg ditimbulkan

$$E_{31} = k \frac{q_1}{5^2} \left(\frac{q_1 + 3j}{5} \right)$$
$$E_{32} = k \frac{q_2}{4^2} (-\hat{i})$$

menghitung q_2 ↑ Medan 21 ← medan 23

$$\int \frac{dx}{x^2} = \int_0^1 x^{-2} dx$$
$$= x^{-1} \Big|_0^L$$
$$= \frac{1}{x} \Big|_0^L$$

$$F_{21} = \frac{F}{q_2} = k \frac{q_2 q_1}{q_2}$$
$$= \frac{q_2}{3^2} \left(\frac{q_1 + 3i}{5} \right)$$

(1) $\cancel{\Delta}$ $E = k \frac{q}{p^2} p$

$$= k \sum_{i=1}^{n} \frac{q_i}{p_i^2} p_{oi}$$

$$= k \left[\sum_{i=1}^{n} \sum_{i=1}^{n} \frac{q_1}{r_1^2} \hat{p}_{oi} + \frac{q_2}{p_2^2} \hat{p}_2 \dots + \frac{q_n}{p_n^2} p_{ok} \right]$$

(2) $\dot{E} = k \int \frac{dy}{r^2} \hat{p}_o = k \int \frac{\lambda dx}{r^2} p_o$ medan pada kawat lurus

(3) $E = k \iint \frac{\lambda dq}{r^2} p_o$ · lamda

(4) $E = k \iiint \frac{\rho dq}{p^2} p_o$ → volume

NOTEBOOK

No: Date:

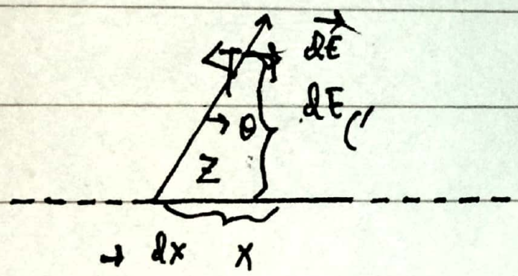
$k\lambda : \int_0^L \frac{dx}{(x_0-x)^2}$

$k\lambda \int_0^L (x_0-x)^{-2}\, dx$

$: k\lambda \left[\frac{1}{(x_0-x)} \Big|_0^L \right]$

$: k\lambda \left[\frac{1}{(x_0-L)} - \frac{1}{(x_0-0)} \right]$

$: k\lambda \left[\frac{x_0-(x_0-L)}{x_0-(x_0-L)} \right] = 0 \frac{L}{x_0(x_0-L)}$



$d\vec{E} : dE_y + dE_x$ misal: $\cos\theta : \frac{z}{r}$

$dE : dE_y$ $r : \frac{z}{\cos\theta}$

$dE : dE \cos\theta$ $tg : \frac{x}{z}$

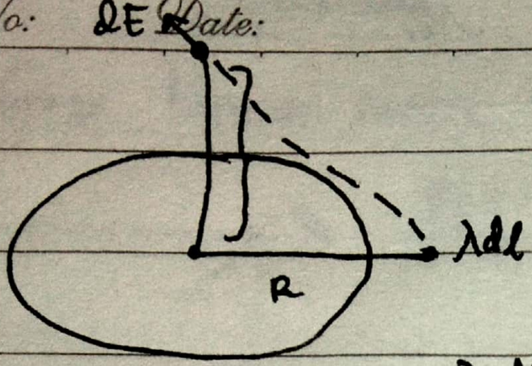
$E : k \int^{\infty} \frac{\lambda\, dx}{r^2} \cos\theta$ $x : z\, tg\, \theta$

$dx = \frac{z}{\cos^2\theta}$

$x : -\infty$ $\theta : -\frac{\pi}{2}$

$x : \infty$ $\theta : \frac{\pi}{2}$

No: Date:



$r = (Z^2 + R^2)^{\frac{1}{2}}$

$r^2 = (Z^2 + R^2)^{\frac{1}{2} \cdot 2}$

$E = k \int_0^{\pi R} \frac{\lambda \, dl}{(R^2 + Z^2)} \cos\theta$

$k \lambda Z \int_0^{\pi R} \frac{dl}{(R^2 + Z^2)^{3/2}}$