

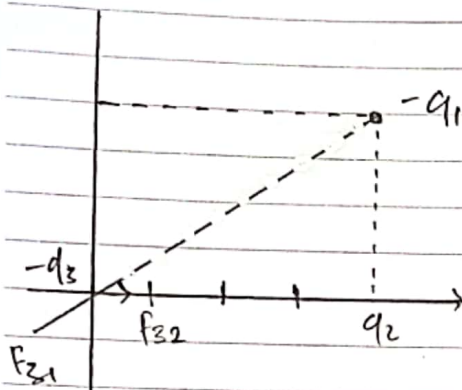
Nama: Nisa Ufa Dika

Senin, 18-03-2024

Mk : Kausma

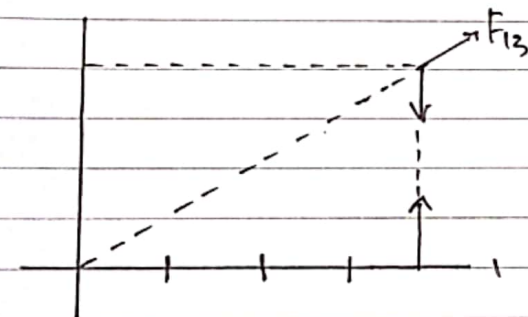
No

Date



$$\vec{F}_{21} = \frac{1}{4\pi\epsilon_0} \frac{q_2 \cdot q_1}{r^2} \left(\frac{-4\hat{i} - 3\hat{j}}{5} \right)$$

$$\vec{F}_{32} = \frac{1}{4\pi\epsilon_0} \frac{q_3 \cdot q_2}{r^2}$$



$$\vec{F}_{12} = k \frac{q_1 q_2}{r^2} \frac{0\hat{i} + 3\hat{j}}{3}$$

$$\vec{F}_{12} = -k \frac{q_1 q_2}{3^2} \hat{j}$$

$$\vec{F}_{13} = k \frac{q_2 q_1}{5^2} \left(\frac{4\hat{i} + 3\hat{j}}{5} \right)$$

$$\vec{F}_{21} = k \frac{q_2 q_1}{3^2} \left(\frac{3\hat{i} + 0\hat{j}}{3} \right) = k \frac{q_3 \cdot q_1}{3} \hat{i}$$

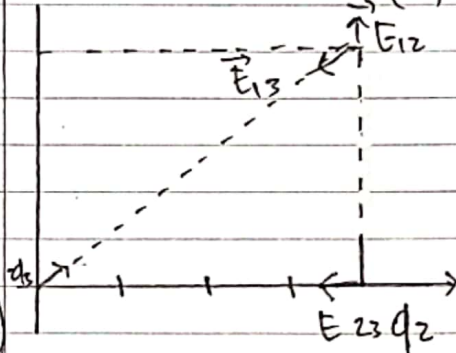
$$\vec{F}_2 = k \frac{q_2 q_1}{4^2} \left(\frac{4\hat{i} + 0\hat{j}}{4} \right) = k \frac{q_2 q_2}{4^2} (-\hat{i})$$

→ Medan Magnet

Catatan

• (+) Mengauh

• (-) Mendekat



$$\vec{E}_{32} \cdot \frac{f}{q_3} = k \frac{q_3 q_2}{r^2}$$

$$= k \frac{q_2}{r^2} \dots \text{Pers. ... 1}$$

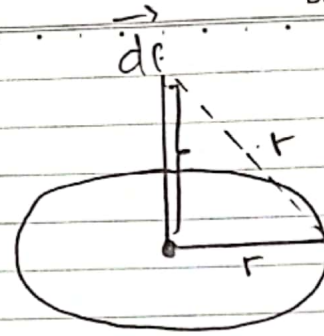
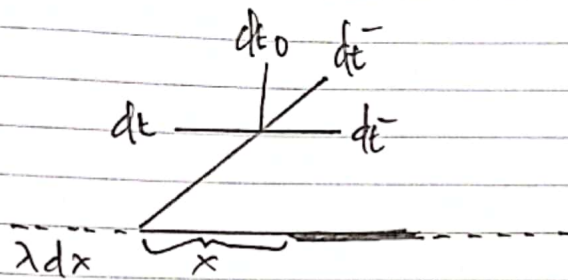
example:

$$\vec{E}_{31} = k \frac{q_1}{r^2} = \left(\frac{4\hat{i} + 3\hat{j}}{5} \right)$$

$$\vec{E}_{32} = k \frac{q_2}{r^2} = k \frac{q_2}{4^2} (-\hat{i})$$

$$\vec{E}_{21} = k \frac{q_1}{r^2} = k \frac{(0\hat{i} + 3\hat{j})}{3^2}$$

$$= k \frac{q_1}{3} \hat{j}$$



$$d\vec{E} \cdot d\vec{E} \quad y + d\vec{E} \cdot x$$

$$d\vec{E} \cdot d\vec{E} \quad y$$

$$d\vec{E} \cdot d\vec{E} \quad \cos \theta$$

Misal

$$\cos \theta = \frac{z}{r}$$

$$r = \frac{z}{\cos \theta}$$

$$\log x = \frac{x}{2}$$

$$x = 2 \log \theta \rightarrow dx = \frac{2}{\cos^2 \theta}$$

$$x \downarrow = -\infty$$

$$\theta = -\frac{\pi}{2}$$

$$x = \infty$$

$$\theta = \frac{\pi}{2}$$

$$\vec{E} \cdot k \int_0^1 \frac{\lambda dz}{(r^2 + z^2)} \cos \theta$$

$$= k \lambda z \int \frac{dz}{(z^2 + r^2)^{3/2}}$$

$$\frac{z}{r^2} \cdot (z^2 + r^2)^{1/2} \quad \frac{2}{r^2}$$