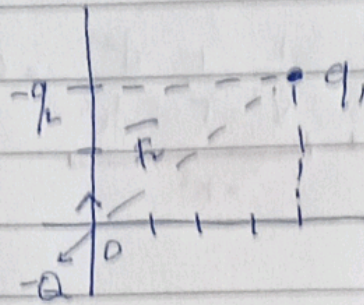


KELISTRIKAN DAN KEIMAGNETAN☐ ➤ MEDAN MAGNET

E di

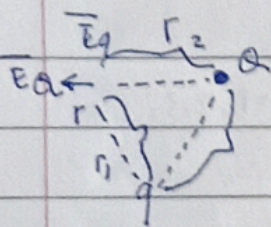
Gaya

medan magnet adalah daerah
disekitar magnet atau arus
listrik dimana gaya magnet
dapat dirasakan. Medan magnet
memengaruhi muatan listrik
yang lain.



$$k = \frac{1}{4\pi\epsilon_0}$$

$$\vec{E} = \frac{\vec{F}}{Q} = k \frac{q}{r^2} \hat{r}_0$$



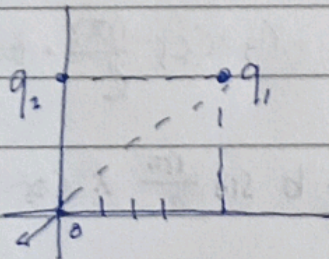
$$\begin{aligned}\vec{E}_p &= \vec{E}_1 + \vec{E}_2 \\ &= k \left[\frac{q_1}{r_1^2} \hat{r}_{01} + \frac{q_2}{r_2^2} \hat{r}_{02} \right]\end{aligned}$$

 $\vec{F}$

$$\vec{F} = \vec{F}_1 + \vec{F}_2$$

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

Medan



$$\vec{E}_{(0)} = k \left[\frac{q_1}{3^2} (\hat{j}) + \frac{q_2}{5^2} \left(\frac{-4\hat{i} - 3\hat{j}}{5} \right) \right]$$

$$= k \left[-4 \frac{q_1}{125} \hat{i} + \left(\frac{q_1}{9} - \frac{3q_2}{125} \right) \hat{j} \right]$$

$$|\vec{E}| = \sqrt{(1)^2 + (1)^2}$$