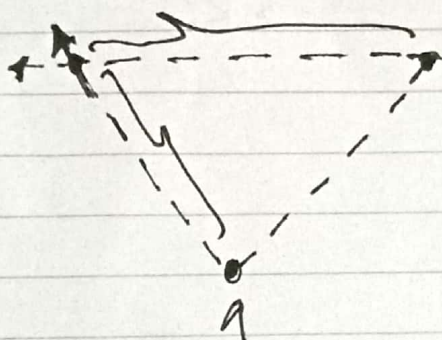


Listrik Statis

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

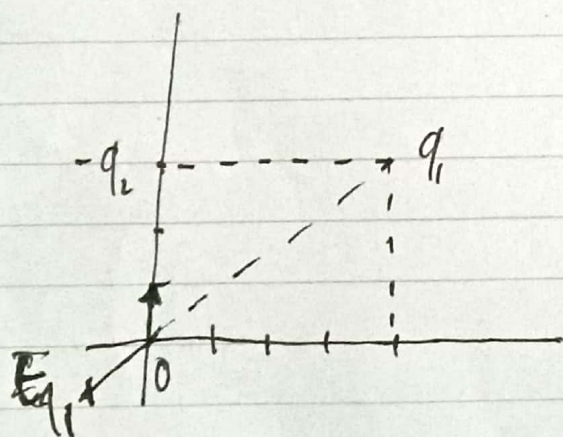
$$k = \frac{1}{4\pi}$$



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

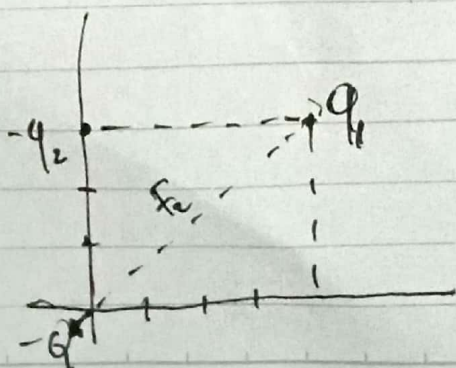
$$\vec{E}_p = \vec{E}_q + \vec{E}_q$$

$$= k \left[\frac{q}{r^2} \hat{r}_{01} + \frac{Q}{r^2} \hat{r}_{02} \right]$$



$$\vec{E}_{eq1} = k \left[\frac{q_1}{3^2} (\hat{j}) + \frac{q_1}{5^2} \left(\frac{-4\hat{i} - 3\hat{j}}{5} \right) \right]$$

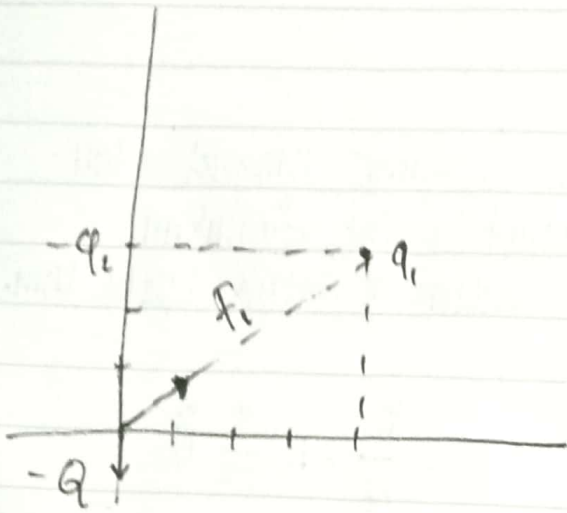
$$= k \left[-\frac{4q_1}{125} \hat{i} + \left(\frac{q_1}{9} - \frac{3q_1}{125} \right) \hat{j} \right]$$



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

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

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



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

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

$$= kQ$$