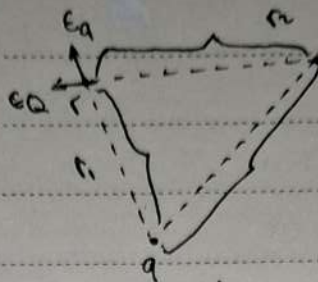
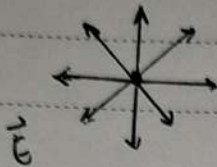


Listrik Statis

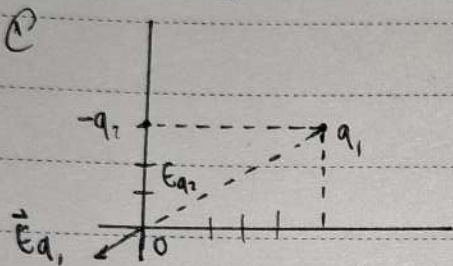


$$\vec{E} = \frac{F}{Q} = k \frac{q}{r^2} \hat{r}_0$$

$$\vec{E}_Q = \vec{E}_1 + \vec{E}_2$$

$$= k \left[\frac{q_1}{r_1^2} \hat{r}_{01} + \frac{q_2}{r_2^2} \hat{r}_{02} \right]$$

Medan dapat dijumlahkan oleh muatan. Medan ruang yg di akan mempengaruhi muatan lain di sekitarnya.

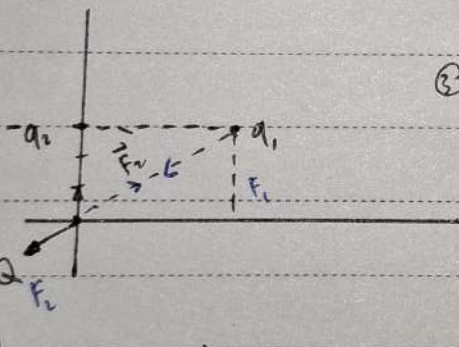


E = di titik 0

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

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

$$|\vec{E}| = \sqrt{\left(-4 \frac{q_1}{125} \right)^2 + \left(\frac{q_2}{9} - \frac{3q_1}{125} \right)^2}$$



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

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

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

Sistem gaya harus memiliki lebih dari 2 muatan.