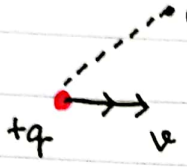
No. senin

Date 27 mei 2024

# Medan Magnet

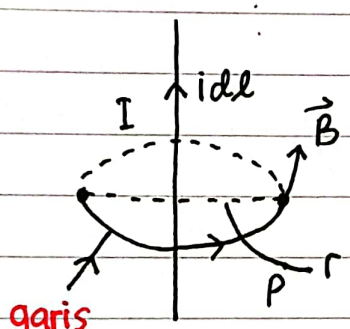
1. Medan oleh muatan bergerak



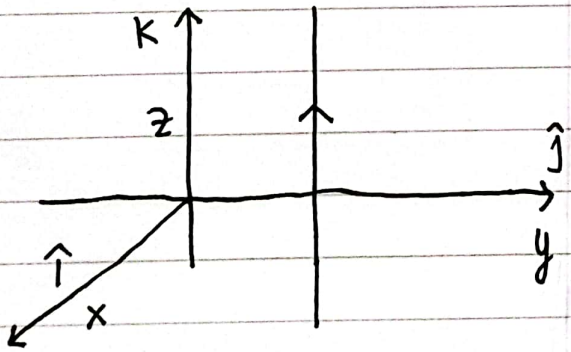

$$\vec{B} = \frac{\mu_0}{4\pi} \frac{q\vec{v} \times \hat{r}}{r^2}$$

$$= \frac{\mu_0 qv}{4\pi r^2} \sin\theta$$

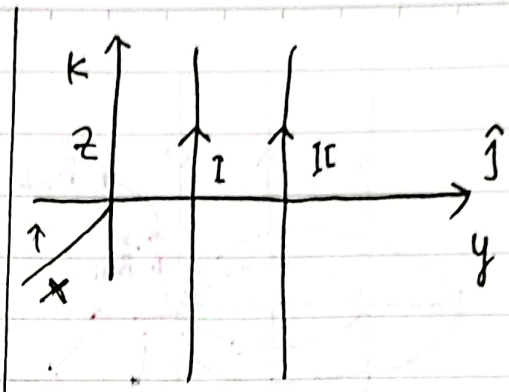
2. $\vec{B}$ oleh arus listrik

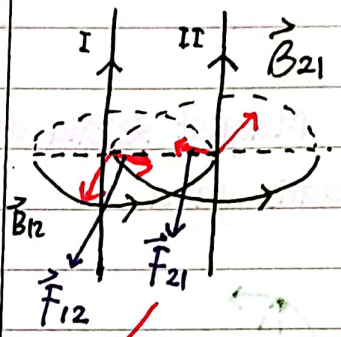



$$\vec{B} = \boxed{\frac{\mu_0}{4\pi}} \frac{id\vec{\ell} \times \hat{r}_0}{r^2}$$

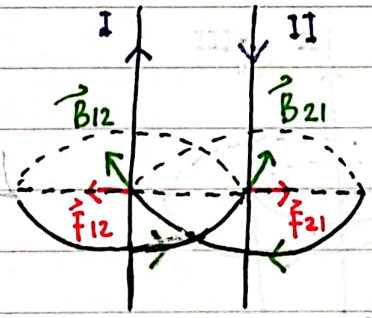


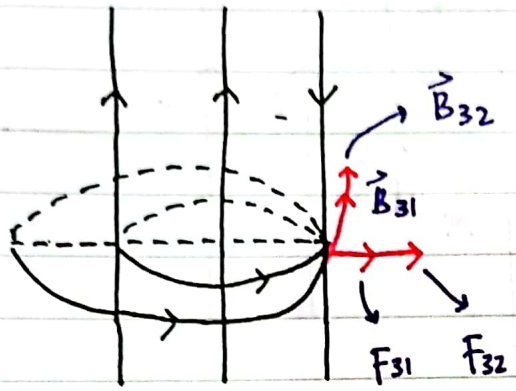

$$\vec{B} = \frac{\mu_0}{4\pi} \frac{id\ell\,\hat{k} \times \hat{r}}{r^2} \rightarrow = \frac{\mu_0}{4\pi} \frac{id\ell}{r^2} \sin\theta\,(-\hat{i})$$




$$F = i d\vec{\ell} \times B$$






- Medan Magnet selalu menyinggung garis gaya.