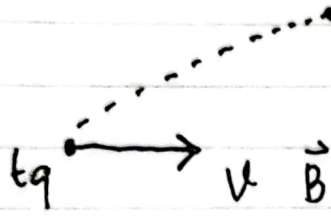


KalismaMedan Magnet

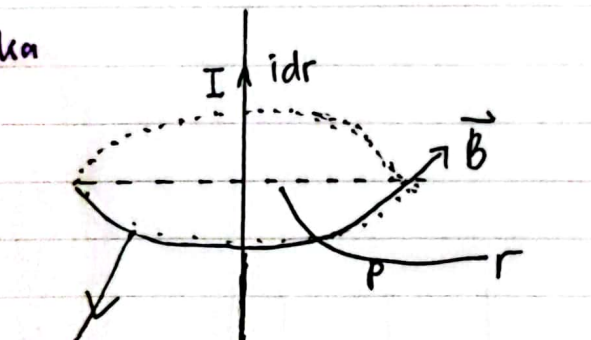
1). Medan magnet oleh muatan bergerak



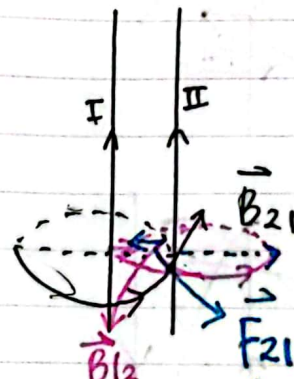
$$\vec{B} = \frac{\mu_0 q}{4\pi} \frac{\vec{v} \times \vec{r}}{r^2}$$

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

→ Fisika

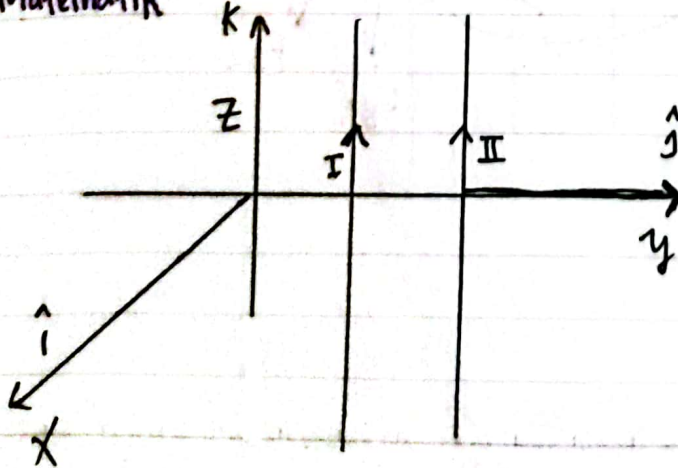


garis gaya $\vec{B} = \frac{\mu_0}{4\pi} \frac{I d\vec{r} \times \vec{r}_0}{r^2}$



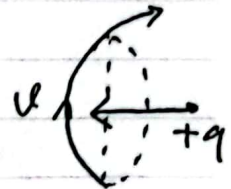
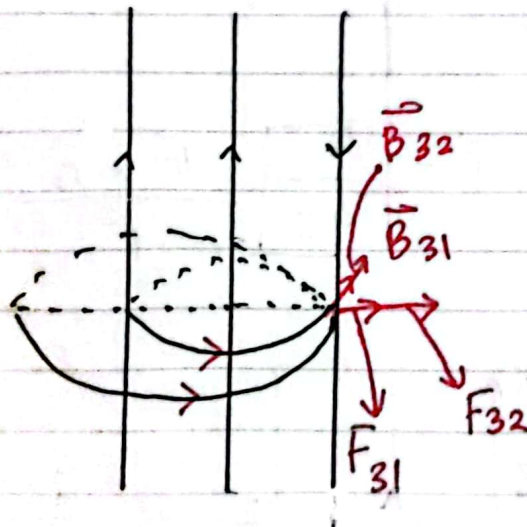
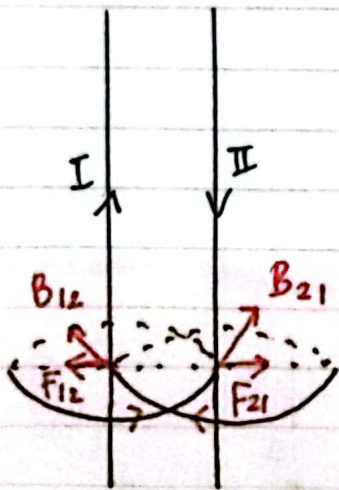
$$\vec{F} = I d\vec{f} \times \vec{B}$$

→ Matematik



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

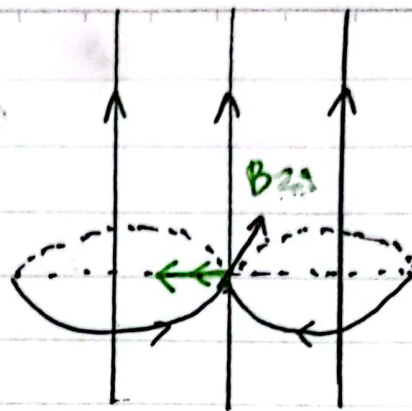
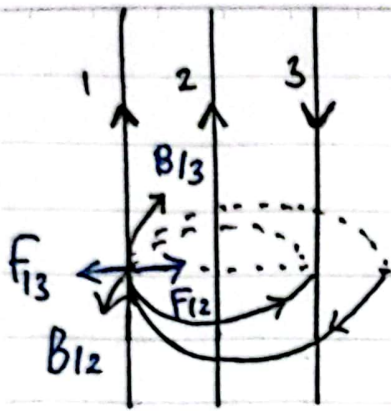
$$= \frac{\mu_0}{4\pi} \frac{idr}{r^2} \sin \theta (-\hat{r})$$



Xinmoyi195

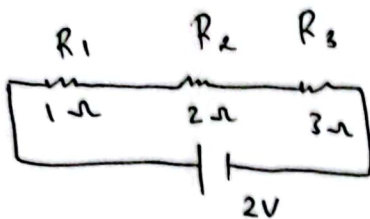
No. _____

Date _____



Kuis

①.



25

a). Hitung arus pada R_3 ?

b). Hitung tegangan pada R_2

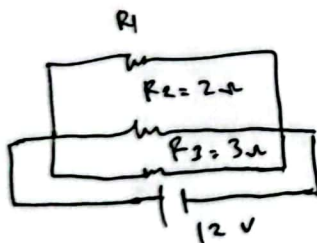
Jawab:

$$a). R_t = R_1 + R_2 + R_3 \\ = 1 + 2 + 3 \\ R_t = 6 \Omega$$

$$I_3 = \frac{V}{R} = \frac{12}{6} = 2 A$$

$$b). V_2 = R_2 \cdot I = 2 \cdot 2 = 4$$

②



25

a). Hitung arus R_3 ?

b). tegangan pada R_2 ?

Jawab

$$a). I_3 = \frac{V}{R} = \frac{12}{3} = 4 A$$

$$b). \frac{1}{R} = \frac{1}{R_1} + \frac{1}{R_2} + \frac{1}{R_3}$$

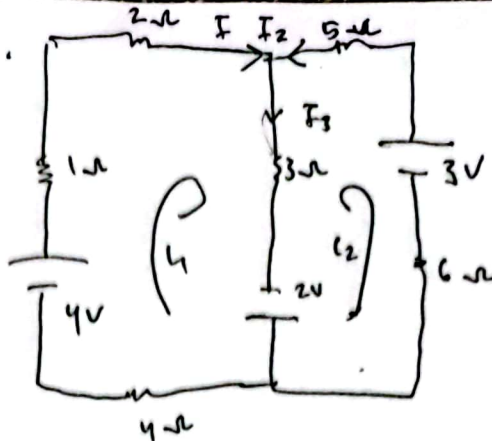
$$\frac{1}{R} = \frac{1}{1} + \frac{1}{2} + \frac{1}{3}$$

$$\frac{1}{R} = \frac{3}{2} = 2 \Omega$$

$$I_{tot} = \frac{V}{R} = \frac{12}{2} = 6 A$$

$$V = I \cdot R = 6 \cdot 2 = 12 V$$

③.



arus loop

I_1, I_2, I_3 ?

$$\text{Loop I} = \sum \epsilon + \sum I R = 0$$

$$-4V - 2V + I_1 (1 + 2 + 4) +$$

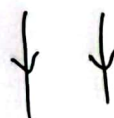
$$I_3 (3) = 0$$

$$-6V + I_1 (7) + I_3 (3) = 0$$

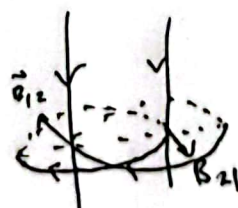
$$7 I_1 + 3 I_3 = 6 V$$

④

⑤



④



25

80