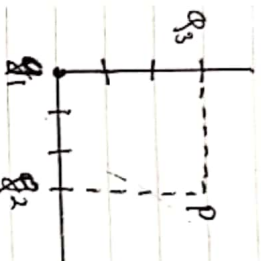
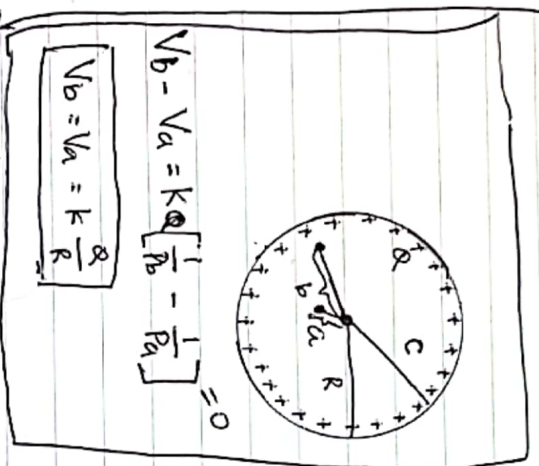


KELASMA

Potensial Listrik



$$V_P = k \left[\frac{Q_1}{r_{1P}} + \frac{Q_2}{r_{2P}} + \frac{Q_3}{r_{3P}} \right]$$



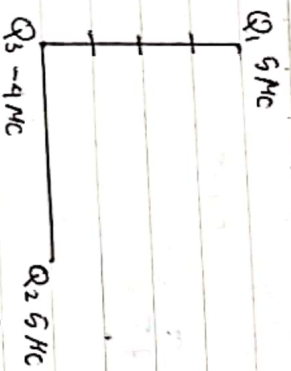
$$\int_a^b dv = - \int_{R_a}^{R_b} \vec{E} \cdot d\vec{p}$$

$$V \Big|_a^b = - \int_{R_a}^{R_b} k \frac{Q}{r^2} dp$$

$$= -kQ \int_{R_a}^{R_b} \frac{1}{r^2} dp$$

$$= -kQ \left(-\frac{1}{r} \right) \Big|_{R_a}^{R_b} = kQ \left[\frac{1}{R_b} - \frac{1}{R_a} \right]$$

$$V_b - V_a = kQ \left[\frac{1}{R_b} - \frac{1}{R_a} \right]$$



$$V = k \left(\frac{Q_1}{r_1} + \frac{Q_2}{r_2} + \frac{Q_3}{r_3} \right)$$

$$= k \left(\frac{5}{8} + \frac{5}{9} + \frac{-4}{11.3} \right)$$

$$= k \left(\frac{5}{8} + \frac{5}{9} + \frac{-4}{11.3} \right)$$

$$V = - \int \vec{E} \cdot d\vec{p} = - \int_{2\pi R_{top}}^{\lambda} dp = - \frac{\lambda}{2\pi R} \int_p^{\infty} \frac{1}{p} dp$$

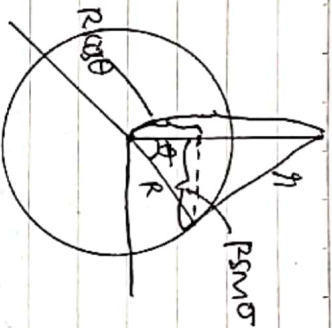
$$= - \int \vec{E} \cdot d\vec{p} \quad \text{2.11}$$

$$\vec{E} = \frac{\lambda}{2\pi \epsilon_0 p}$$

$$V = k \frac{Q}{p}$$

$$V = k \int \frac{\sigma da}{p}$$

$$= k \frac{Q}{p} \quad \sigma \cdot a$$



$$h = \sqrt{(R \sin \theta)^2 + (z - R \cos \theta)^2}$$

$$h = \sqrt{R^2 + z^2 - 2Rz \cos \theta}$$

$$V = \frac{1}{4\pi\epsilon_0} \int_0^\pi \int_0^{2\pi} \frac{\sigma da}{r}$$

$$= \frac{36}{4\pi\epsilon_0} \int_0^\pi \int_0^{2\pi} \frac{R^2 \sin \theta d\theta d\phi}{(R^2 + z^2 - 2Rz \cos \theta)^{3/2}}$$

$$= \frac{\pi\sigma}{4\pi\epsilon_0} \int_0^\pi \frac{\sin \theta d\theta}{(R^2 + z^2 - 2Rz \cos \theta)^{3/2}}$$