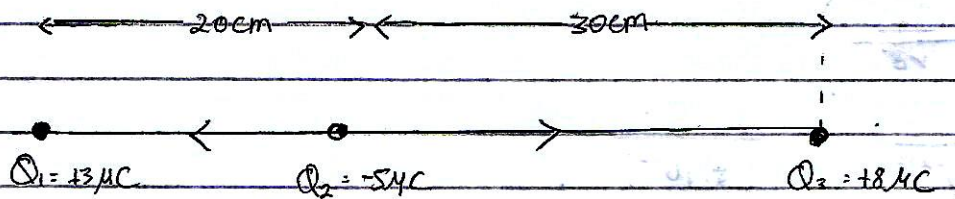


1. Diket:



$$r_{21} = 20 \text{ cm} = 20 \cdot 10^{-2} \text{ m}$$

$$r_{23} = 30 \text{ cm} = 30 \cdot 10^{-2} \text{ m}$$

Ditanya? F_{total} pd Q_2 ?

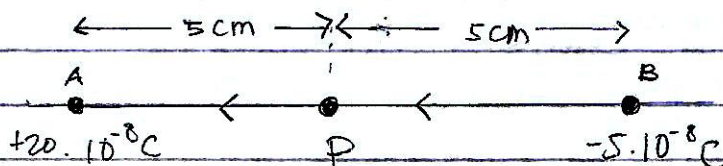
Jawab:

$$\begin{aligned}
 F_{21} &= k \frac{q_2 \cdot q_1}{r_{21}^2} \\
 &= \frac{9 \cdot 10^9 \cdot 5 \cdot 10^{-6} \cdot 3 \cdot 10^{-6}}{(20 \cdot 10^{-2})^2} \\
 &= \frac{9 \cdot 10^9 \cdot 15 \cdot 10^{-12}}{40 \cdot 10^{-4}} = \frac{135 \cdot 10^{-3}}{4 \cdot 10^{-2}} = 3,375 \text{ N (kiri)}
 \end{aligned}$$

$$\begin{aligned}
 F_{23} &= k \frac{q_2 \cdot q_3}{r_{23}^2} \\
 &= \frac{9 \cdot 10^9 \cdot 5 \cdot 10^{-6} \cdot 8 \cdot 10^{-6}}{(30 \cdot 10^{-2})^2} \\
 &= \frac{360 \cdot 10^{-12}}{900 \cdot 10^{-4}} = 4 \text{ N (kanan)}
 \end{aligned}$$

$$\begin{aligned}
 F_{\text{total}} &= F_{32} - F_{21} \\
 &= 4 - 3,375 \\
 &= 0,625 \text{ N (kekanan)}
 \end{aligned}$$

2. Diket:



Ditanya: a.) intensitas medan E di titik P
 b.) Gaya pada muatan $-4 \cdot 10^{-8} \text{ C}$ di titik P