

Nama: Andri Firman Saputra

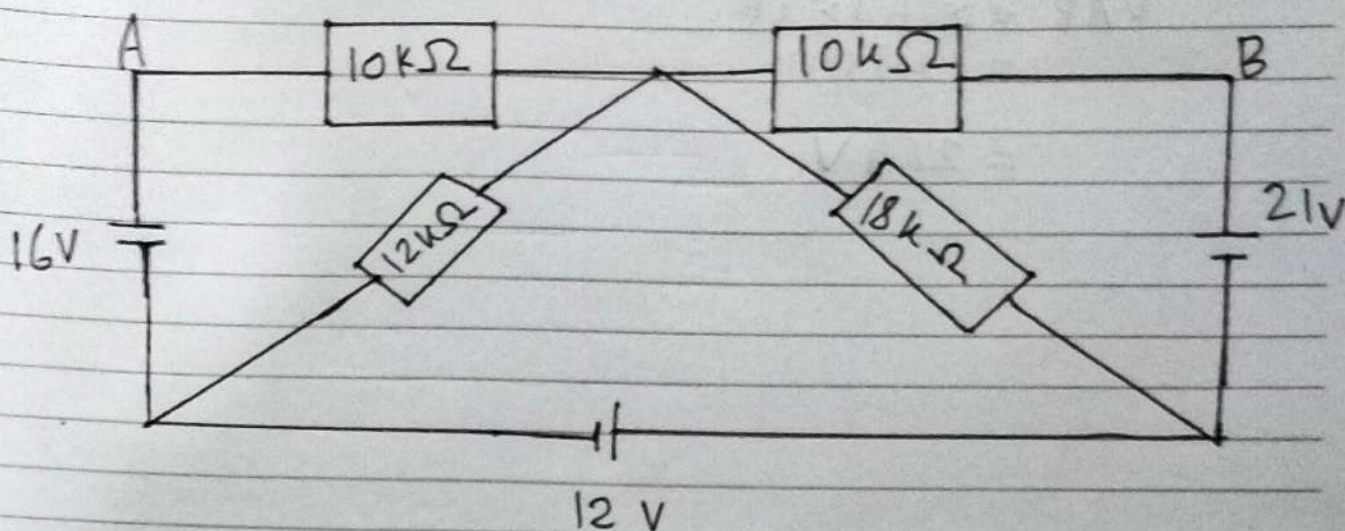
Fisika Dasar II

NIM: 201011402125

Pertemuan 11

No
Date

3. Diketahui:



(a) Tentukan arus yg melalui baterai 16V

Loop 1:

$$\sum E + \sum IR = 0$$

$$-16V + 10kI + 12kI = 0$$

$$10kI + 12kI = 16V$$

Loop 2:

$$\sum E + \sum IR = 0$$

$$21V + 10kI + 18kI = 0$$

$$10kI + 18kI = -21V$$

Loop 3:

$$\sum E + \sum IR = 0$$

$$-12V + 18kI + 12kI = 0$$

$$18kI + 12kI = 12V$$

$$10I + 12I = 0,016V$$

$$10I + 18I = -0,021V$$

$$18I + 12I = 0,012V$$

$$\begin{bmatrix} 10 & 12 \\ 10 & 18 \\ 18 & 12 \end{bmatrix} \begin{matrix} I_1 = 22A \\ I_2 = 28A \\ I_3 = 30A \end{matrix}$$

B. Beda Potensial antara titik A dan B

$$V_{AB} = \sum E + \sum IR$$

$$= (22) (12)$$

$$= 264 \text{ V}$$