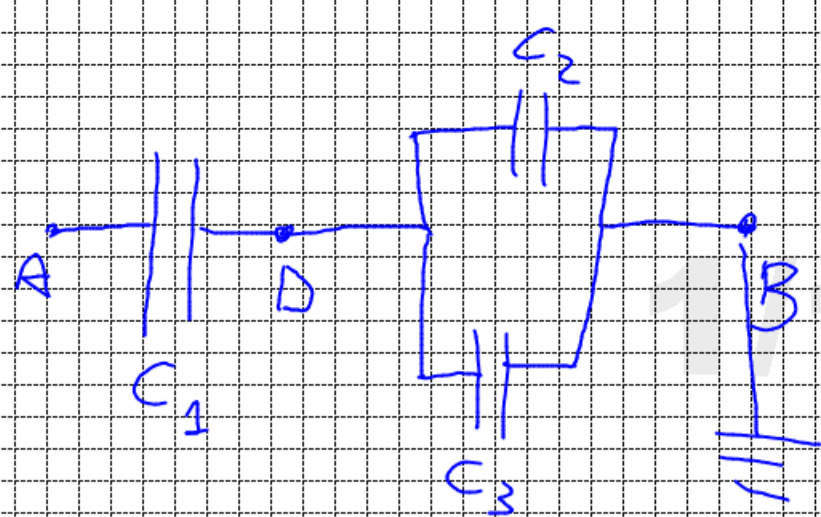


$$C_1 = 3 \mu\text{F}$$

$$C_2 = 4 \mu\text{F}$$

$$C_3 = 2 \mu\text{F}$$



$$V_A = 200\text{V}$$

$$Q_1 = ? \quad Q_2 = ? \quad Q_3 = ?$$

$$V_{D2} = ?$$

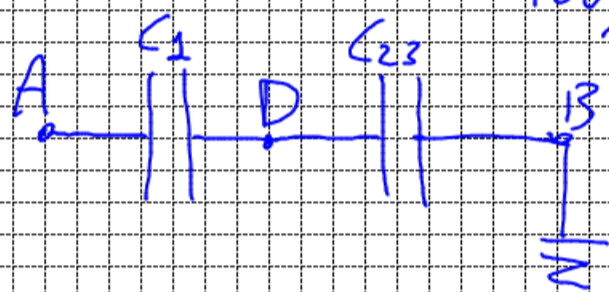
$$\Delta E_{e1} = ? \quad \Delta E_{e2} = ? \quad \Delta E_{e3} = ?$$

$$\Delta V_{AB} = \Delta V_{AD} + \Delta V_{DB}$$

$$C = \frac{Q}{\Delta V}$$

$$\Delta V_{TOT} = V_A - V_B = 200\text{V} - 0\text{V} = 200\text{V}$$

$$Q_{TOT} = C_{TOT} \Delta V_{TOT} = 2 \mu\text{F} \cdot 200\text{V} = 400 \mu\text{C}$$



$$Q_{TOT} = Q_1 + Q_{23}$$

$$Q_{TOT} = C_1 \Delta V_{AD} + C_{23} \Delta V_{DB}$$

$$400 \mu\text{C} = 3 \mu\text{F} (200\text{V} - \Delta V_{DB}) + 6 \mu\text{F} \cdot \Delta V_{DB}$$

$$3 \mu\text{F} \Delta V_{DB} = 400 \mu\text{C} - 600 \mu\text{C}$$

$$\Delta V_{DB} = \frac{-200 \mu\text{C}}{3 \mu\text{F}} = -66,7\text{V}$$

$$\Delta V_{AD} = (200 + 66,7)\text{V} = -133,3\text{V}$$

$$Q_1 = C_1 \Delta V_{AD} = 3 \mu\text{F} \cdot 133,3\text{V} = 400 \mu\text{C}$$

$$Q_2 = C_2 \Delta V_{DB} = 4 \mu\text{F} \cdot 67\text{V} = 268 \mu\text{C}$$

$$Q_3 = C_3 \Delta V_{DB} = 2 \mu\text{F} \cdot 67\text{V} = 134 \mu\text{C}$$

$$E_{e1} = \frac{1}{2} Q_1 \Delta V_{AD} = \frac{1}{2} \cdot 400 \mu\text{C} \cdot 133,3\text{V} = 0,0267\text{J}$$

$$E_{e2} = \frac{1}{2} Q_2 \Delta V_{DB} = \frac{1}{2} \cdot 268 \mu\text{C} \cdot 67\text{V} = 0,0090\text{J}$$

$$E_{e3} = \frac{1}{2} Q_3 \Delta V_{DB} = \frac{1}{2} \cdot 134 \mu\text{C} \cdot 67\text{V} = 0,0045\text{J}$$