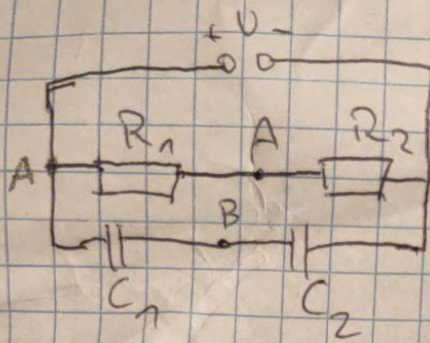


B.09



$$R_1 = 24 \Omega$$

$$R_2 = 18 \Omega$$

$$C_1 = 6 \mu\text{F}$$

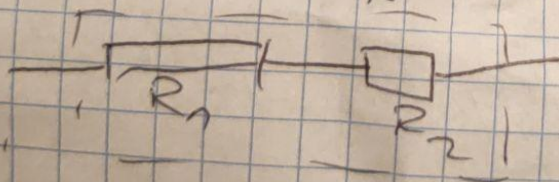
$$C_2 = 2 \mu\text{F}$$

$$U = 28 \text{ V}$$

a)

$$I = ?$$

$$U = IR \Rightarrow I = \frac{U}{R}$$

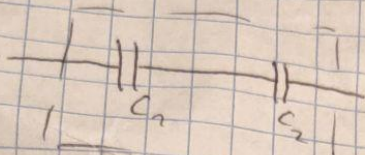


$$R_{\Sigma} = R_1 + R_2$$

$$R_{\Sigma} = 24 \Omega + 18 \Omega = 42 \Omega$$

$$I = \frac{U}{R_{\Sigma}} \Rightarrow I = \frac{28 \text{ V}}{42 \Omega} = \frac{2}{3} \text{ A}$$

$$C_Z = ?$$



$$\frac{1}{C_Z} = \frac{1}{C_1} + \frac{1}{C_2}$$

~~$\frac{1}{C_Z} = \frac{1}{6 \mu F} + \frac{1}{2 \mu F}$~~

$$\frac{1}{C_Z} = \frac{1}{6 \mu F} + \frac{1}{2 \mu F} = \frac{1}{6 \mu F} + \frac{3}{6 \mu F} =$$

$$= \frac{4}{6 \mu F}$$

$$\frac{1}{C_Z} = \frac{4}{6 \mu F}$$

$$C_Z = \frac{6}{4} \mu F = 1,5 \mu F$$

$$q = ?$$

$$C_Z = \frac{q}{U} \Rightarrow q = C_Z U$$

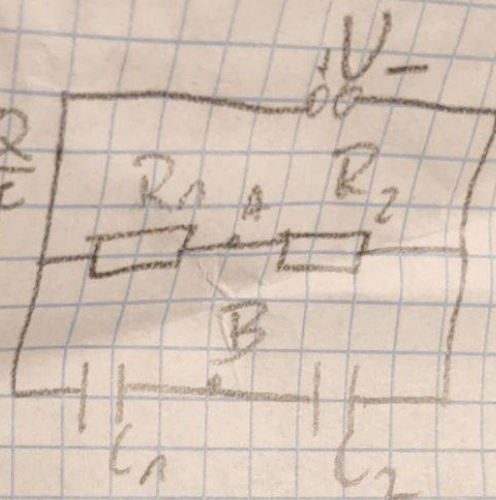
$$q = 1,5 \mu F \cdot 2,8 V = 4,2 \mu C$$

F A
3

Dla rezyst. $U = IR$
 Dla kon. $C = \frac{Q}{U} \Rightarrow U = \frac{Q}{C}$
 $U = 28V$

$R_1 = 2k\Omega$ $I = \frac{2}{3}A$

$C_1 = 6\mu F$ $Q = 42\mu C$



$U_A = \frac{2}{3}A \cdot 2k\Omega = 16V$

$U_B = \frac{42\mu C}{6\mu F} = 7V$

$U_{AB} = 16V - 7V = 9V$