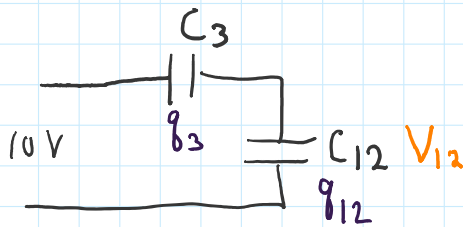


$$C_{12} = C_1 + C_2$$

$$C_{12} = .25 \mu\text{F} + 1 \mu\text{F}$$

$$C_{12} = 1.25 \mu\text{F}$$

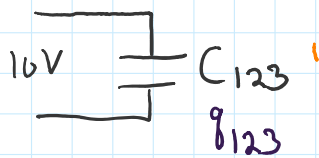


$$\frac{1}{C_{123}} = \frac{1}{C_{12}} + \frac{1}{C_3}$$

$$\frac{1}{C_{123}} = \frac{1}{1.25 \mu\text{F}} + \frac{1}{.3 \mu\text{F}}$$

$$\frac{1}{C_{123}} = 4.13 / \mu\text{F}$$

$$C_{123} = .252 \mu\text{F}$$



$$q_{123} = q_{12} = q_3 = 2.52 \mu\text{C}$$

$$q_{123} = C_{123} V = (.252 \mu\text{F})(10\text{V})$$

$$q_{123} = 2.52 \mu\text{C}$$

for  $C_1 + C_2$

$$V_{12} = V_1 = V_2$$

$$V_{12} = \frac{q_{12}}{C_{12}} = \frac{2.52 \mu\text{C}}{1.25 \mu\text{F}} = 2.02 \text{V}$$

$$q_1 = C_1 V_1$$

$$q_1 = (.25 \mu\text{F})(2.02 \text{V})$$

$$q_1 = .505 \mu\text{C}$$

$$q_2 = C_2 V_2$$

$$q_2 = (1 \mu\text{F})(2.02 \text{V})$$

$$q_2 = 2.02 \mu\text{C}$$