

Discussion Question 5B

P212, Week 5

Analysis of Capacitor Networks

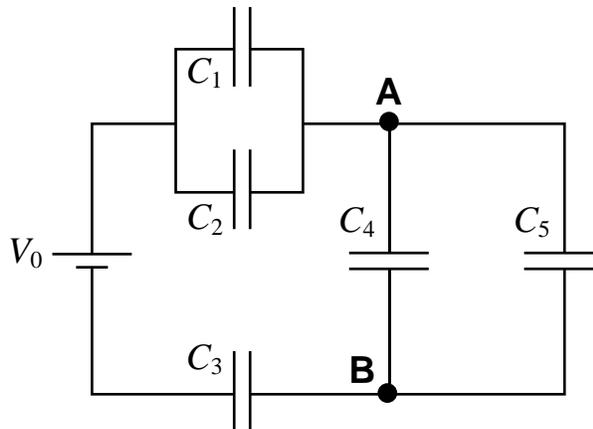
You're ready to analyze a circuit without any help! A battery of voltage V_0 is again hooked up to a network of 5 capacitors, but in a different arrangement. You are asked four questions:

1. What is the voltage V_A at the point A?

2. What is the voltage V_B at the point B?

3. What is the charge Q_2 on capacitor C_2 ?

4. What is the energy U_5 stored in capacitor C_5 ?



$$\begin{aligned}V_0 &= 12 \text{ V} \\C_1 &= 5 \mu\text{F} \\C_2 &= 8 \mu\text{F} \\C_3 &= 15 \mu\text{F} \\C_4 &= 3 \mu\text{F} \\C_5 &= 10 \mu\text{F}\end{aligned}$$

Remember, the voltages V_A and V_B must be determined *relative to ground* ...