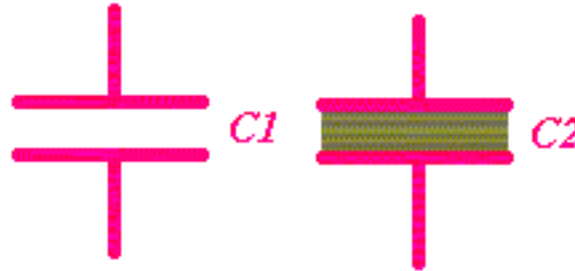


Checkpoint 4a



Two identical parallel plate capacitors are given the same charge Q , after which they are disconnected from the battery. Then, a dielectric is placed between the plates of C_2



Compare the voltages of the two capacitors.

- A $V_1 > V_2$ B $V_1 = V_2$ C $V_1 < V_2$

“Both have the same charge but 2 has a bigger capacitance so it has a smaller voltage.”

“Voltage depends on charge not dielectric”

“ $C=Q/V$. Q stays the same while C increases due to the dielectric, so in order to adjust for this increase, we need to decrease the V .”

