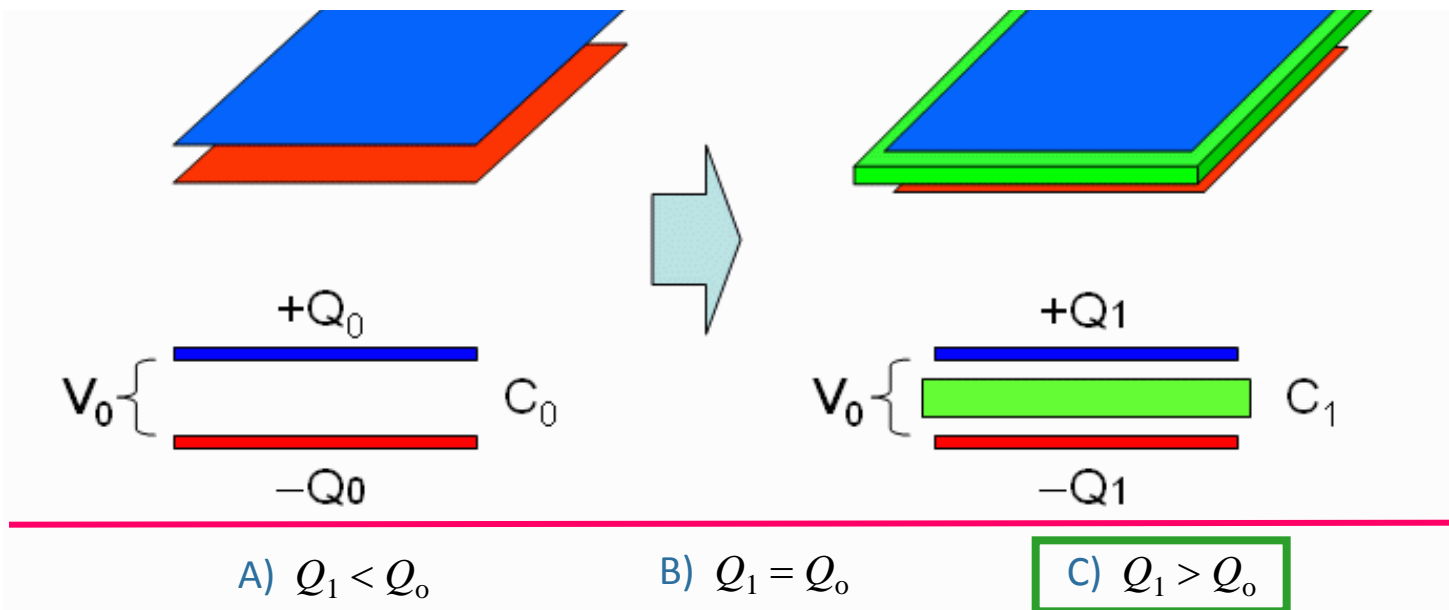Two parallel plates are given a charge Q_0 such that the potential difference between the plates is V_0. If a conductor is slid between plates, how would charge need to be adjusted to keep same potential difference?

A) $Q_1 < Q_o$ B) $Q_1 = Q_o$ C) $Q_1 > Q_o$

"Since we learned in pre-lecture that the voltage decreases in this configuration, since voltage is directly proportional to charge, charge will decrease as well. "

"The green body inserted has no charge, so the potential should not change. hence, the value of Q1 should be equal to that of Q0."

"The voltage of the second capacitor will be smaller because of the material in the middle, so more charge has to be put on it in order for it to have the same voltage."