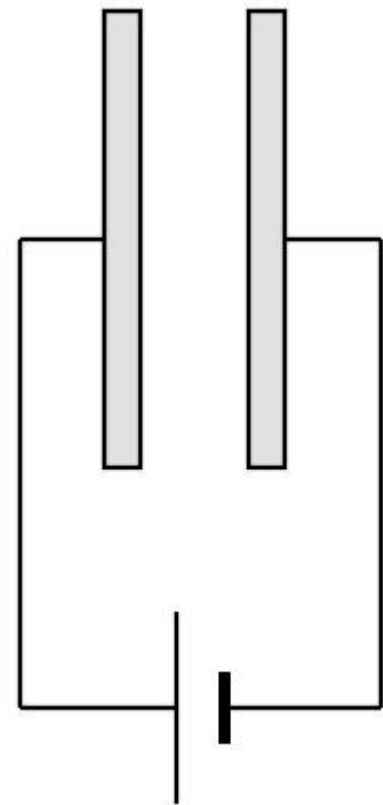


A parallel-plate capacitor's plates are given equal and opposite charges by being connected to a battery. Then the plates are **disconnected from the battery** and pulled farther apart. What happens to the magnitude of the **charge** on each plate of the capacitor as a result of pulling the plates apart?



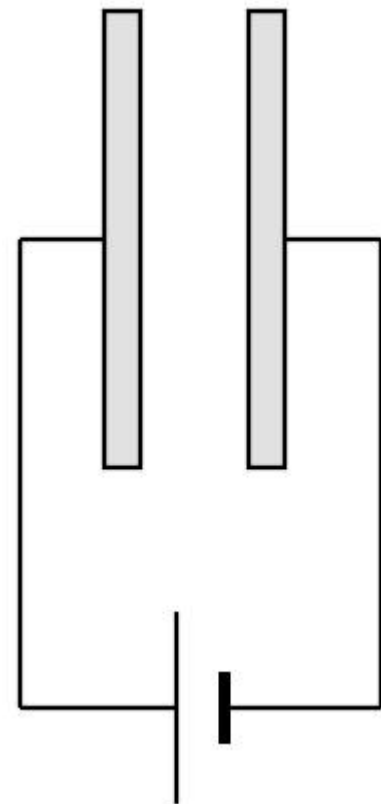
- A. The magnitude of the charge increases.
- B. The magnitude of the charge remains the same.
- C. The magnitude of the charge decreases.



A parallel-plate capacitor's plates are given equal and opposite charges by being connected to a battery. Then the plates are pulled farther apart **while connected to the battery**. What happens to the magnitude of the **charge** on each plate of the capacitor as a result of pulling the plates apart?



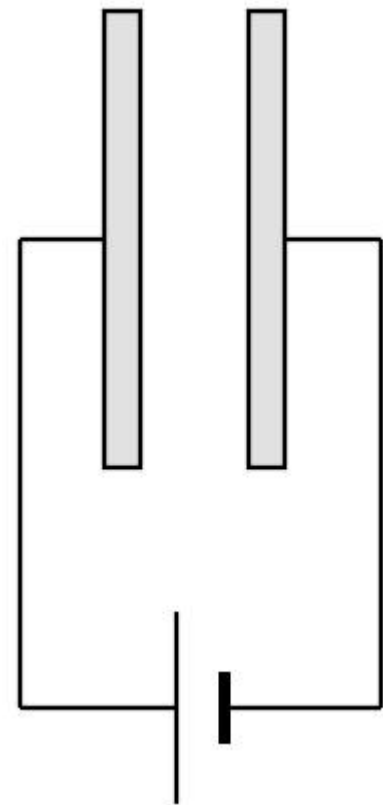
- A. The magnitude of the charge increases.
- B. The magnitude of the charge remains the same.
- C. The magnitude of the charge decreases.



A parallel-plate capacitor's plates are given equal and opposite charges by being connected to a battery. Then the plates are **disconnected from the battery** and pulled farther apart. What happens to the magnitude of the **energy stored** in the capacitor as a result of pulling the plates apart?



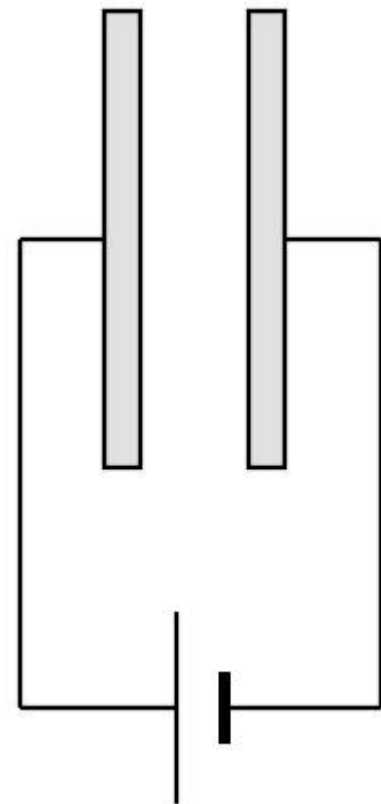
- A. The magnitude of the energy increases.
- B. The magnitude of the energy remains the same.
- C. The magnitude of the energy decreases.



A parallel-plate capacitor's plates are given equal and opposite charges by being connected to a battery. Then the plates are pulled farther apart **while connected to the battery**. What happens to the magnitude of the **energy stored** in the capacitor as a result of pulling the plates apart?



- A. The magnitude of the charge increases.
- B. The magnitude of the charge remains the same.
- C. The magnitude of the charge decreases.



Suppose the capacitor is connected to the battery. The plates remain connected and an insulating slab of dielectric constant $\kappa (> 1)$ is slid between the plates. What happens to the **electrical energy** stored in the capacitor as a result of inserting the insulating slab?



- A. The stored electrical energy increases.
- B. The stored electrical energy remains the same.
- C. The stored electrical energy decreases.

