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.