

1. What is the maximum amount of charge that can be stored on the capacitor when it is fully charged?
2. What is the magnitude and direction of the electric field between the capacitor plates?

- Suppose that after the capacitor is fully charged the battery is removed. The capacitor is then connected to the $100M\Omega$ resistor and allowed to discharge. What is the time constant for the discharging circuit?
- What is the voltage across the capacitor $4ms$ after it begins to discharge?
- At a time $4ms$ after the capacitor begins to discharge, how much energy has been dissipated across the resistor?