

Quiz 20.1A

A circuit contains a 120-Volt battery, a 5.6-Ohm resistor and a 22 μF capacitor. At $t=0$, the capacitor is uncharged, and a switch is closed allowing current to begin to flow in the circuit to charge the capacitor.

- a) After 2.5 time constants have elapsed, what is the voltage drop across the capacitor?
- b) At this time, what is the voltage drop across the resistor?
- c) At what time is the voltage drop across the resistor equal to the voltage drop across the capacitor?