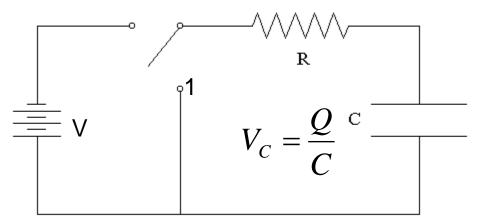
RC Circuit

After the switch turns to position "1", The capacitor C is discharged through the resistor R. Charge decays exponentially, with time constant T=RC.



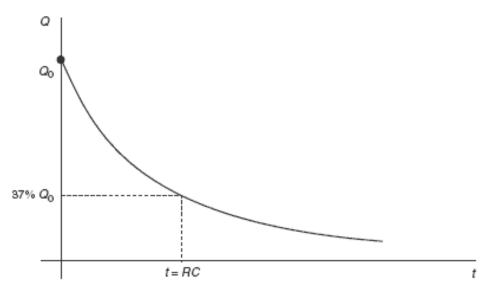


Figure 21.12 Graph of a capacitor discharging.

Homework

In the circuit below, C1=C2=1mF; V=10V; R=1k Ω . Originally the switch is in "a' position. C2 is not charged.

- a) Find the original charge on the capacitor C1.
- b) The switch is moved to 'b' position. What will be the new charge on C1?
- c) You switch between positions 'a' and 'b' multiple times. What will be the eventual charge on each of the capacitors?

