

- (a) How much charge is on each plate of a 4.00- μ F capacitor when it is connected to a 12.0-V battery?
(b) If this same capacitor is connected to a 1.50-V battery, what charge is stored?

We know, that $Q = CU$, where Q - charge, C - capacity, U - voltage

(a) $Q = 4 \cdot 10^{-6} F \cdot 12V = 48\mu C$

(b) $Q = 4 \cdot 10^{-6} F \cdot 1.5V = 6\mu C$