

10. The equivalent capacitance is given by $C_{\text{eq}} = q/V$, where q is the total charge on all the capacitors and V is the potential difference across any one of them. For N identical capacitors in parallel, $C_{\text{eq}} = NC$, where C is the capacitance of one of them. Thus, $NC = q/V$ and

$$N = \frac{q}{VC} = \frac{1.00\text{C}}{(110\text{V})(1.00 \times 10^{-6}\text{F})} = 9.09 \times 10^3.$$