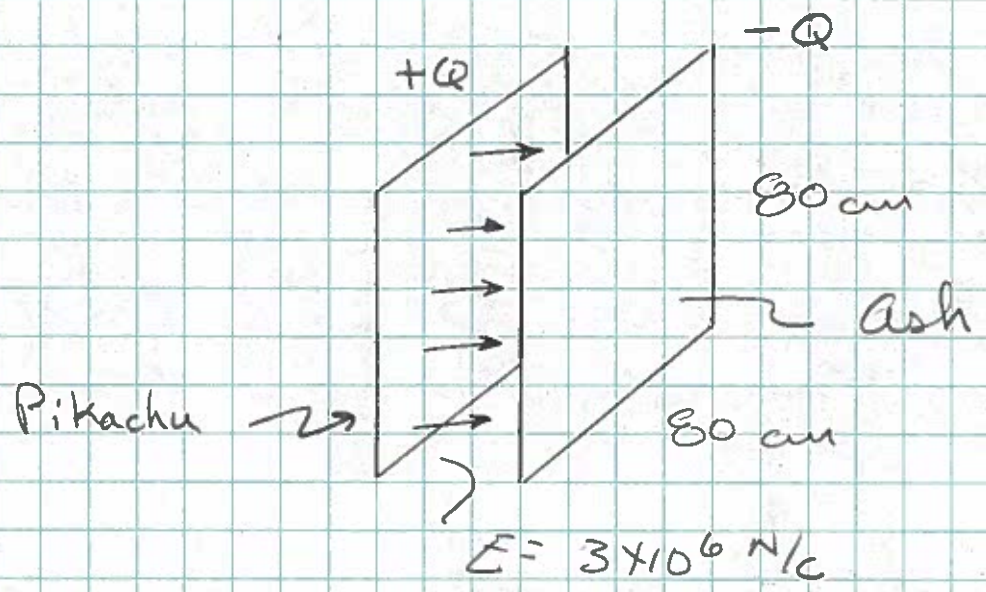

$$E = \frac{\eta}{\varepsilon_0} \Rightarrow \eta = \varepsilon_0 E = 2.655\times10^{-5}\ C/m^2$$

and, $\eta = \frac{Q}{A}$ $\quad A = (.8m)^2 = 0.64m^2$

So: $Q = \eta A = 1.7\times10^{-5}\ C$

$= 17{,}000\ nC$