QUESTION

The charge of a proton is $q_p = 1.6 \cdot 10^{-19} \ C$. Using this information, calculate the charge on $N = 2.4 \cdot 10^{14}$ protons.

SOLUTION:

The charge of $2 \cdot 10^{14}$ protons is

$$Q = N \cdot q_p = 2 \cdot 10^{14} \cdot 1.6 \cdot 10^{-19} \ C = 3.2 \cdot 10^{-5} \ C = 32 \cdot 10^{-6} \ C = 32 \ \mu C$$

ANSWER

$32 \ \mu C$