task_g8dmewbkx5ym2462_with_calculation

Student Group

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Exercise E2 Charges on a Ballon

A balloon has a charge of $Q=7~{\rm nC}$ on its surface.
How many additional electrons are on the balloon?

Result

> Solution
>
> \begin{align*} 43.7*10^{9}~{\rm electrons} \end{align*}
>
> \begin{align*} Q &= 7~{\rm nC} = 7\cdot 10^{-9}~{\rm C} \\ n_{\rm e} &= {{7*10^{-9}~{\rm C}}\over{1.6022*10^{-19}~{\rm C/electron}}} = 43.7*10^{9}~{\rm electrons} \end{align*}