

Quick lesson on ions

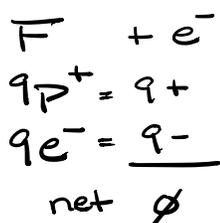
An ion is an atom that has more or less electrons than the number of protons.

A cation has less e^- than the # of protons \Rightarrow + Charge

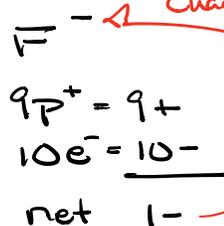
An anion has more e^- than the # of protons \Rightarrow - Charge

Ex

neutral atom

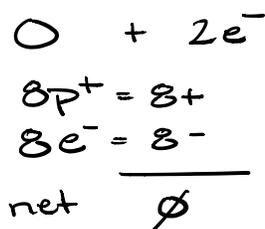


Ion

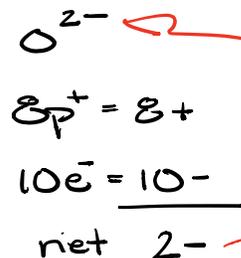


Charge indicated
in upper right
hand side

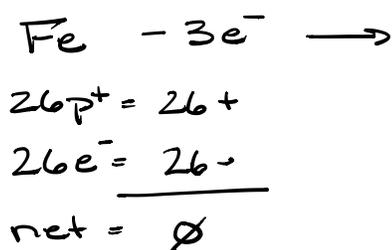
neutral atom



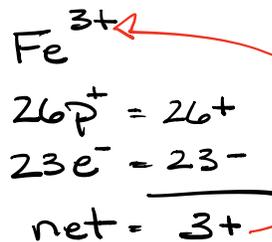
Ion



neutral atom



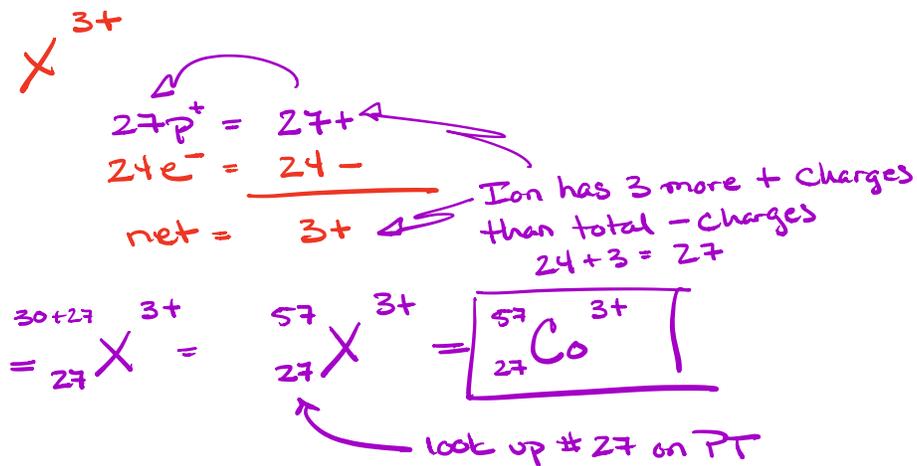
Ion



Creation of an ion does not change the # of protons. Only e^- are gained or lost. This has no effect on the # of neutrons.

Working Backwards

An ion has $24e^-$, 30 neutrons, 3^+ charge write the nuclide symbol for the ion.



Here's an anion example

ion has $18e^-$, mass number 31, 3^- charge write the nuclide symbol

