RULES FOR ASSIGNING OXIDATION NUMBERS

1. The oxidation number of an element in an elementary substance is 0. Examples are Cl_2, S_8, and O_2.

2. The oxidation number of an element in a monatomic ion is equal to the charge of that ion. For example, Cl^- has an ox. number of -1 and Ca^{2+} has an oxidation number of $+2$.

3. Certain elements have the same oxidation number in all or almost all of their compounds. Examples are elements in Groups IA and IIA are always $+1$ and $+2$, respectively. Oxygen usually is -2 in its compounds. However, in hydrogen peroxide (H_2O_2) oxygen has an oxidation number of -1. Hydrogen is usually $+1$ but has an oxidation number of -1 in cases like NaH (where H is bonded to a metal).

4. The sum of the oxidation numbers in a neutral species is 0, while in a polyatomic ion, it is equal to the charge of the ion.