Rules for oxidation numbers

1. Oxidation number for **elements** is **zero**.

$$N_2$$
, O_2 , $Na(s)$, $Co(s)$, $He(g)$

2. Oxidation number of **monatomic ions** is the same as their **charge**

- 3. Oxidation number of **oxygen** in most compounds is -2. Exceptions: H_2O_2 , O_2^{2-} (peroxides) -1
- 4. Oxidation number of hydrogen is +1

Exceptions: bonded to metals LiH -1

5. Fluorine is always –1. Other halogens are –1. Exceptions: bonded to O or F, they are positive