

11. Determine whether the following statements are true or false.

___F___ a) Each hydrogen in NaH and HCl has an oxidation number of +1.

In metal hydrides, H=-1.

___T___ b) To calculate the oxidation numbers of the atoms in a polyatomic ion, the charge of

the ion must be used.

___T___ c) The oxygen in H₂O has an oxidation number of -2.

___F___ d) The oxidation number for nitrogen in a molecule is always +5.

N can be : 0, 2,+3,-3, 4, 5 (don't memorize this)

___T___ e) $A + e \rightarrow A^{-1}$ is a reduction

12. Determine the oxidation number for each atom in the following molecules and find the total contribution by the atom.

a) AlCl₃

	O.N.	Total contribution
Al	3	3
Cl	-1	-3

b) OCl⁻¹

	O.N.	Total contribution
O	-2	-2
Cl	1	1

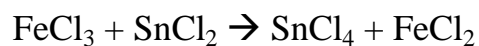
c) Mg^{+2}

	O.N.	Total contribution
Mg	2	2

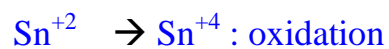
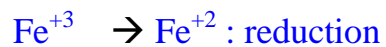
d) KClO_3

	O.N.	Total contribution
K	1	1
Cl	5	5
O	-2	-6

13. Given the unbalanced equation:



a. Identify what is being oxidized and what is being reduced.



b. Write the two half-reactions

