

# 8.2 - Reduction / Oxidation Reaction

Red Ox

★ Transfer of electrons ★

- Assign oxidation number to each atom in a reaction to track the transfer of electrons.

## Rules

- All pure substances = 0

- monoatomic ions = charge

→ molecules the oxidation #s

within a molecule must equal 0

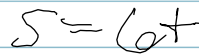
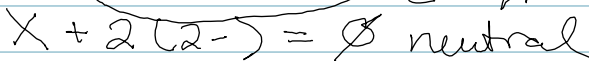
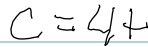
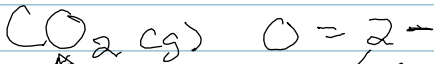
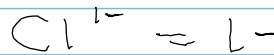
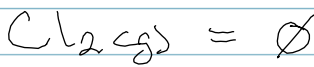
or polyatomic ions the ox #s

must = charge

• oxygen ox # 2-

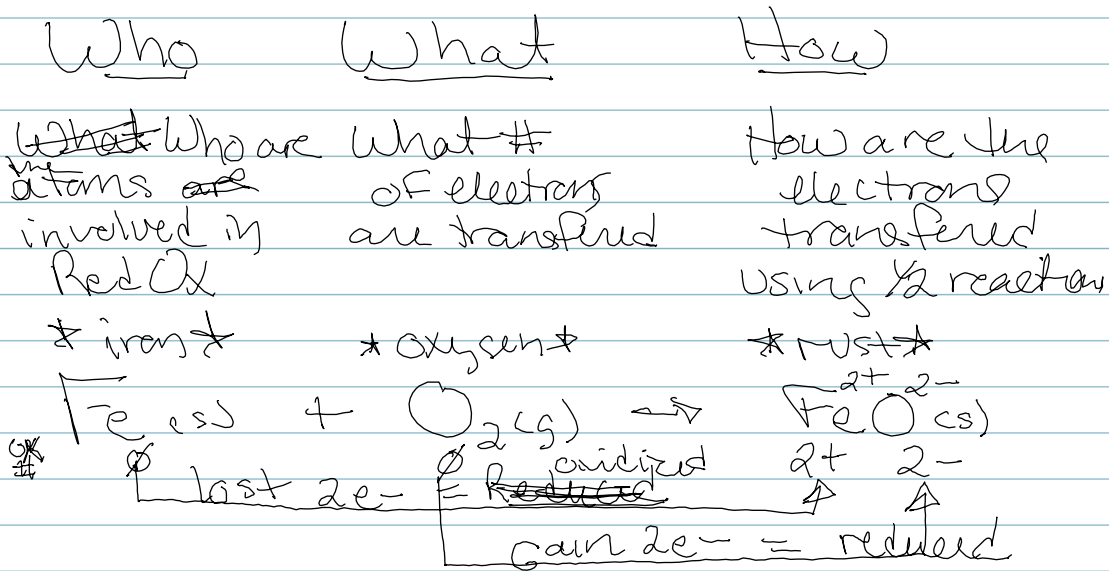
• hydrogen ox # 1+

(ex)



= 2- Charge of the ion

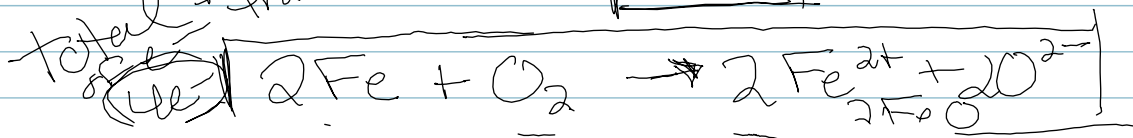
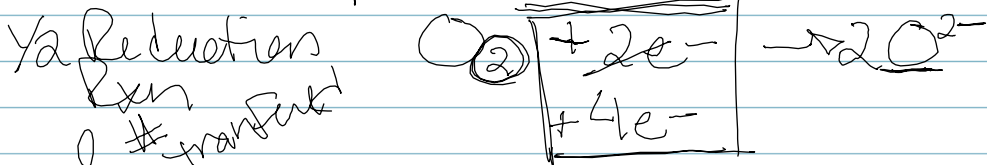
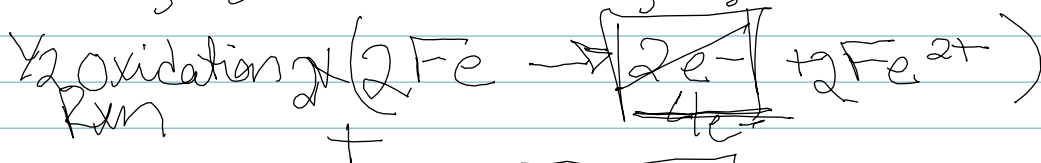
Example:



LEO says GER

Loss of  
 electrons  
Oxidation  
 Reducing Agent

Gain of  
 electrons  
Reduction  
 Oxidizing Agent



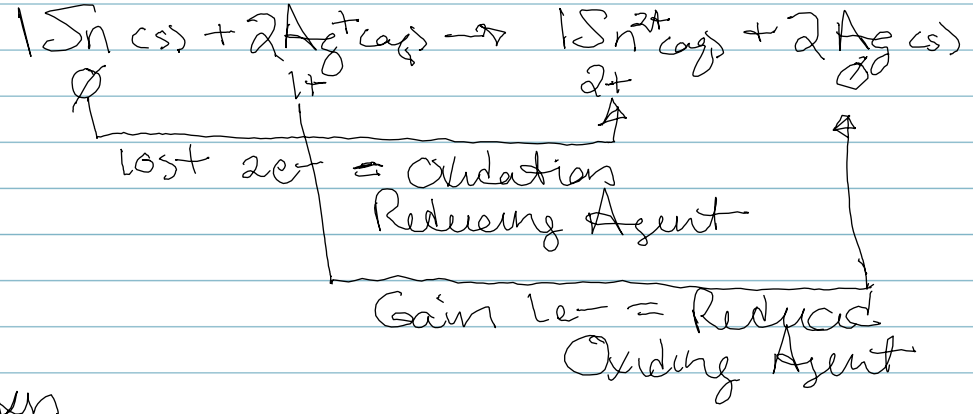
Who  
Red Ox

What  
#

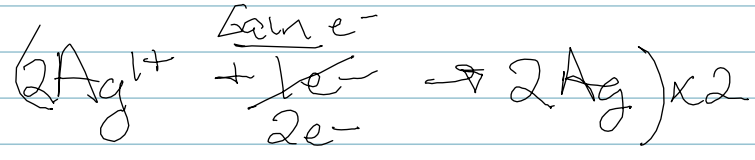
How  
Yarans

#1

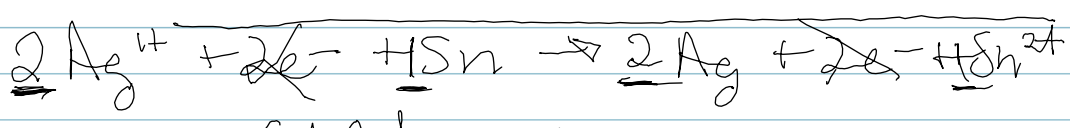
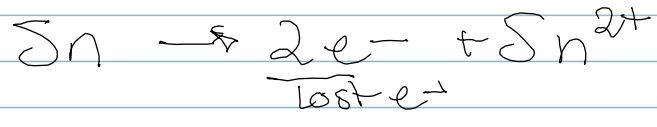
or #1



1/2 Rxn  
Reduction



1/2 Rxn  
Oxidation



cancel out electrons

Total # of electrons transferred  
= 2e<sup>-</sup>