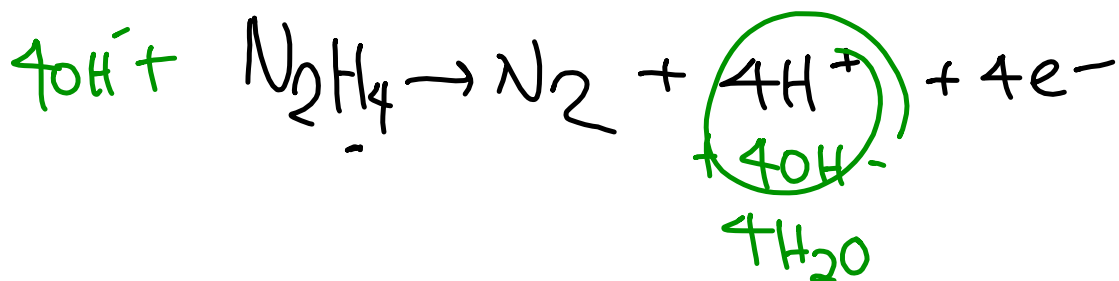
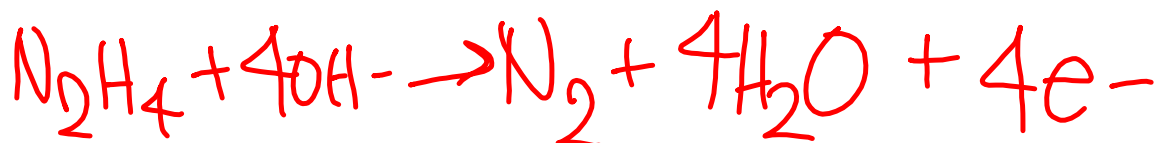
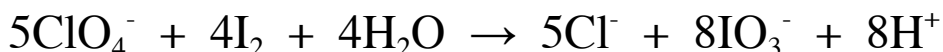


Balance the following half-reactions:

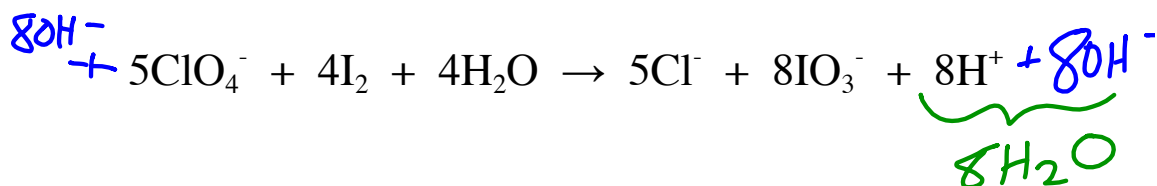




In **basic solutions**, the final equation can be converted by adding equal numbers of hydroxide molecules to both sides of the equation and cancelling out the water molecules



- for basic solution, add  $8\text{OH}^-$  to both sides



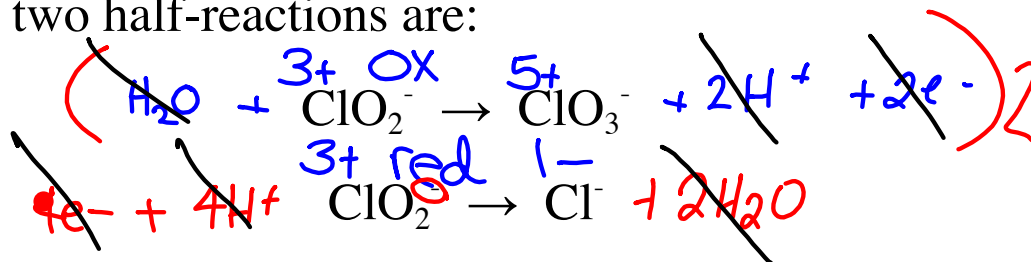
- cancel out water:



In some redox reactions, it is possible for the same chemical to undergo oxidation and reduction. Such a reaction is called **disproportionation**.



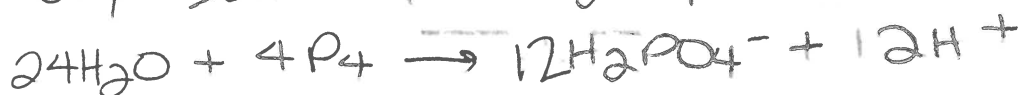
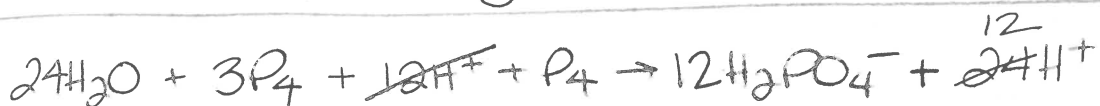
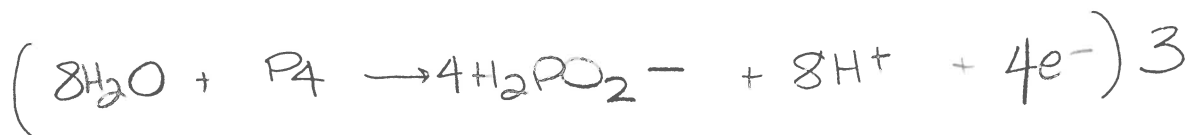
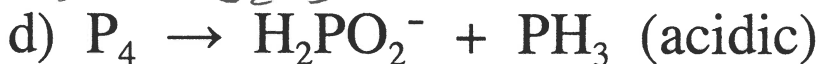
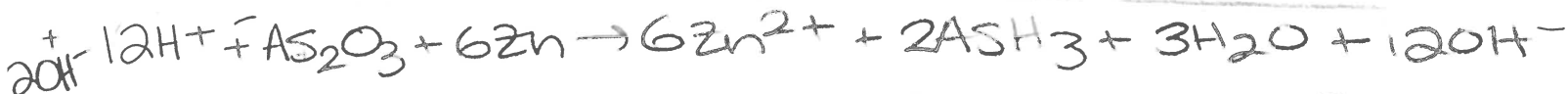
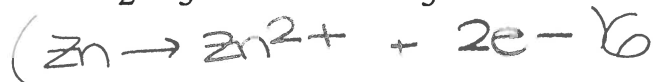
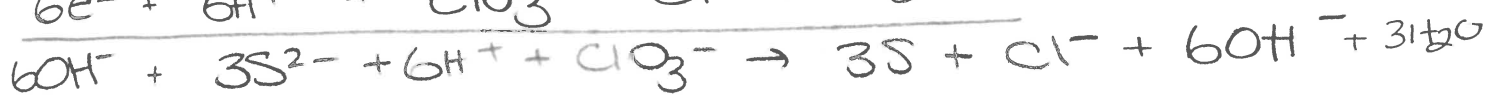
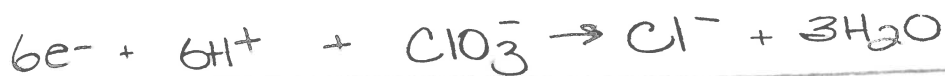
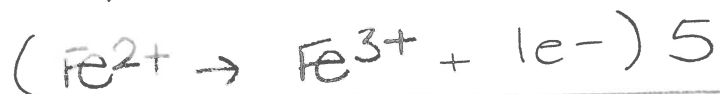
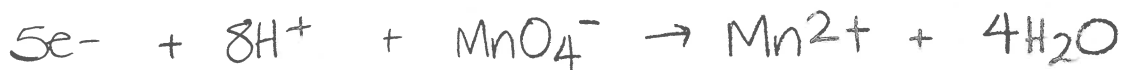
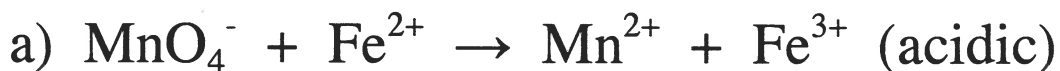
The two half-reactions are:



Balanced redox equation is:



Balance the following redox reactions by the oxidation number method:



$\div 4$



Balance the following redox reaction (acidic)

