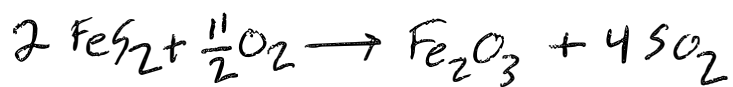
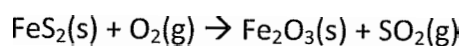
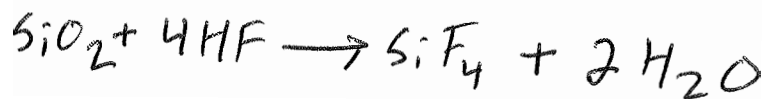
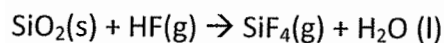
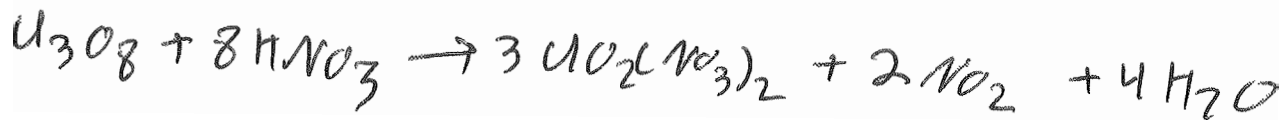
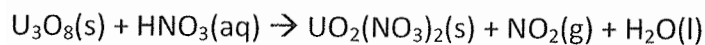
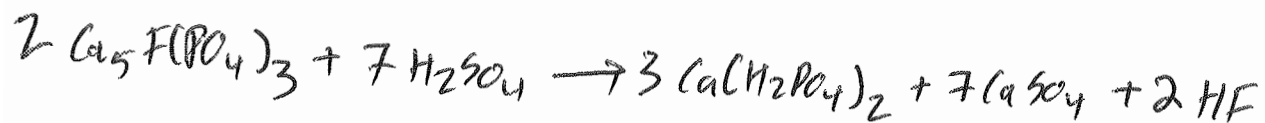
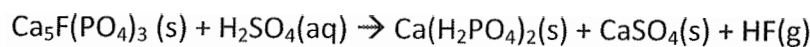
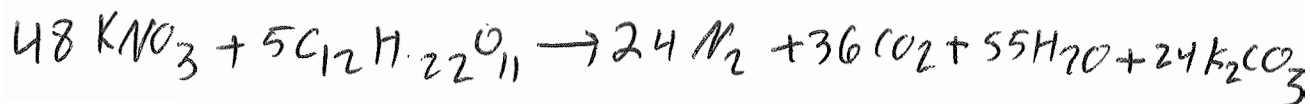
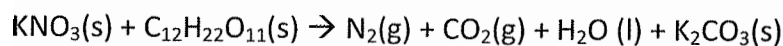
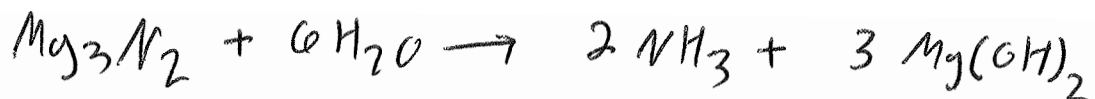
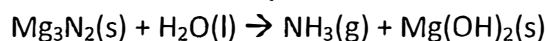


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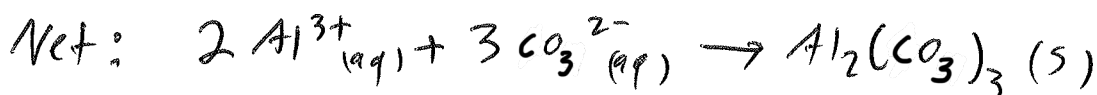
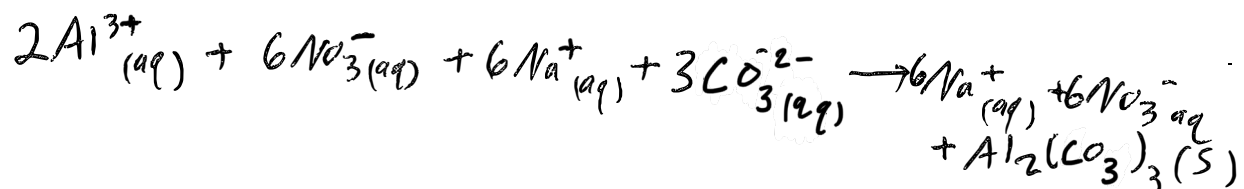
Balance the following unbalanced equations



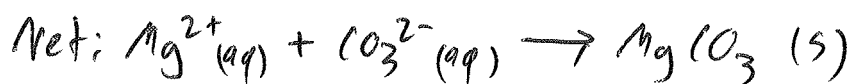
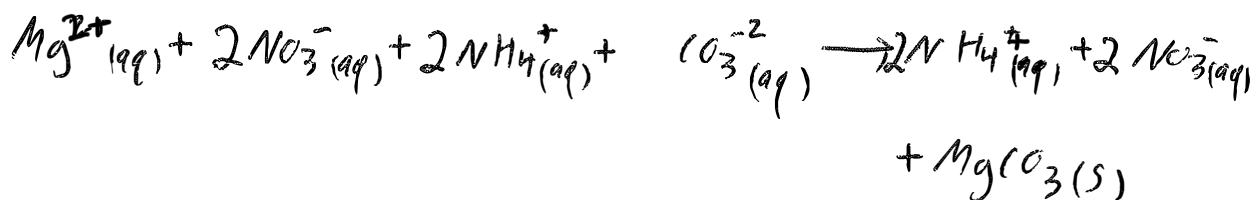
or



Write both the balanced total ionic equation and the balanced net ionic equation for what happens when a solution of aluminum nitrate is mixed with a solution of sodium carbonate.



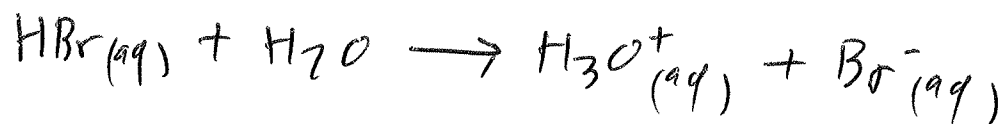
Write both the balanced total ionic equation and the balanced net ionic equation for what happens when a solution of magnesium nitrate is mixed with a solution of ammonium carbonate.



Write both the balanced total ionic equation and the balanced net ionic equation for what happens when a solution of potassium chloride is mixed with a solution of aluminum nitrate.



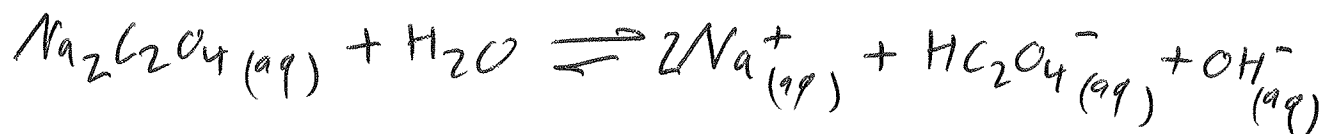
Hydrobromic acid is a strong acid. Write the balanced chemical equation for the reaction that occurs between water and hydrobromic acid.



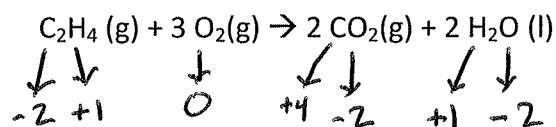
Carbonic acid ( $\text{H}_2\text{CO}_3$ ) is a weak acid. Write the balanced chemical equation for the reaction that occurs between water and carbonic acid.



Sodium oxalate is a weak base. Write the balanced chemical equation for the reaction that occurs between water and sodium oxalate.

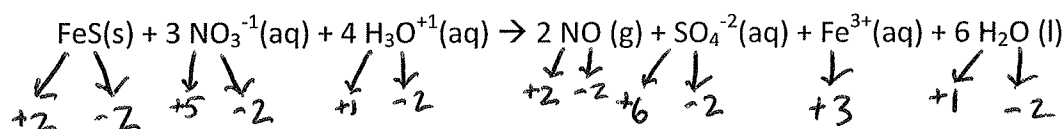


In the following chemical reactions, determine the oxidation number of each type of atom both when it is on the product side of the reaction and when it is on the reactant side. Is anything being oxidized or reduced? If so, what?



C oxidized

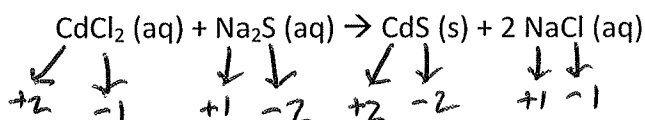
O reduced



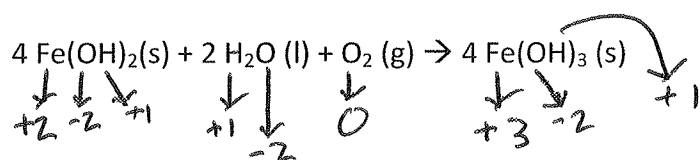
Fe oxidized

S oxidized

N reduced



Nothing ox or red



Fe oxidized

O<sub>2</sub> reduced (only those O atoms, not the ones in H<sub>2</sub>O or OH)