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

Carbonic acid (H₂CO₃) 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?

FeS(s) + 3 NO₃⁻¹(aq) + 4 H₃O⁺¹(aq)
$$\rightarrow$$
 2 NO (g) + SO₄⁻²(aq) + Fe³⁺(aq) + 6 H₂O (l)
+2 -2 +5 -2 +1 -2 +2 -2 +6 -2 +3 +1 -2

N reduced

Nothing ox or red

4 Fe(OH)₂(s) + 2 H₂O (I) + O₂ (g)
$$\rightarrow$$
 4 Fe(OH)₃ (s)
+2 -2 +1 +1 -2 +3 -2 +1

Fe oxidized