

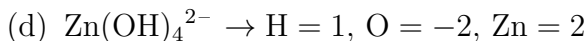
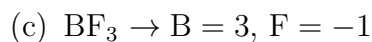
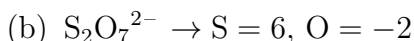
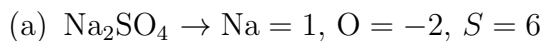
# Chapter 4 Problem Set 1

Michael Brodskiy

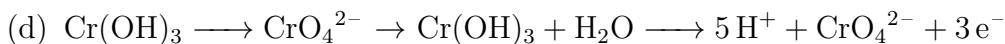
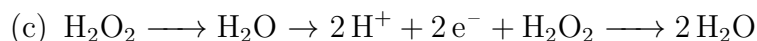
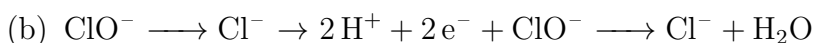
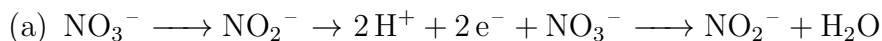
Instructor: Mr. Morgan

September 29, 2020

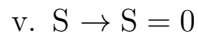
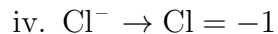
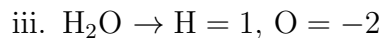
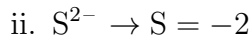
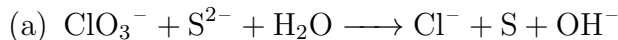
1. Assign oxidation numbers to each atom in the following:



2. Balance the following half reactions:



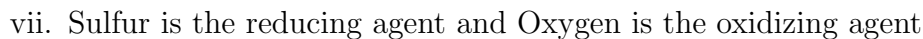
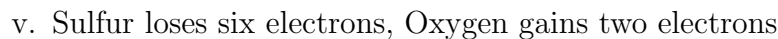
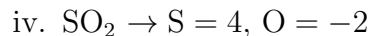
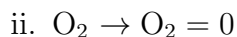
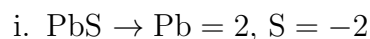
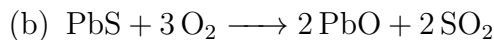
3. (a) Assign oxidation numbers to all atoms. (b) Determine how many electrons are lost and gained from reactants. (c) Determine which reactant is oxidized and which is reduced. (d) Determine the oxidizing agent and the reducing agent.



vii. Sulfur loses two electrons, Chlorine gains six electrons

viii. Sulfur is oxidized because it loses electrons and Chlorine is reduced because it gains electrons

ix. Chlorine is the oxidizing agent and Sulfur is the Reducing agent



4. Balance the following redox reactions:

