Gravimetric Stoichiometry practice

1. Calculate the mass of iron III oxide (rust) produced by the reaction of 500.0 g of iron with oxygen from the air.
2. What mass of precipitate should form if 2.00 g of silver nitrate in solution is reacted with excess sodium sulfide solution?
3. Determine the mass of water vapour formed when 1.00 g of butane (C4H10(g)) in a lighter.
4. Silver metal can be recovered from the waste silver nitrate solutions by reaction with copper metal. What mass of silver can be obtained using 50.0 g of copper?
5. Powdered zinc metal reacts violently with sulfur when heated. Predict the mass of sulfur required to react with 25.0 g of zinc.
6. Bauxite ore contains aluminum oxide , which is decomposed using electricity to produce aluminum metal. What mass of aluminum metal can be produced from 100.0 g of aluminum oxide.
7. Determine the mass of oxygen required to completely burn 10.0 g of butane.
8. Calculate the mass of lead II chloride precipitate produced when 2.57 g of sodium chloride in solution reacts in a double replacement reaction with excess aqueous lead II nitrate.
9. Predict the mass of hydrogen gas produced when 2.73 g of aluminum reacts in a single replacement reaction with excess sulfuric acid.
10. What mass of copper II hydroxide precipitate is produced by the reaction in solution of 2.67 g of potassium hydroxide with excess aqueous copper II nitrate?