

## Questions Must Be Completed On Separate Paper

### Analysis and Conclusions:

1. Define oxidation: \_\_\_\_\_
2. Define reduction: \_\_\_\_\_
3. What is the name of the gas produced by the reactions in Step 1? \_\_\_\_\_
4. a. Write the equation for the reaction between hydrochloric acid and magnesium  
  
b. Label the oxidation numbers of each element in the equation above.  
c. Which substance is oxidized? \_\_\_\_\_  
d. Which substance is reduced? \_\_\_\_\_
5. a. Write the equation for the reaction between hydrochloric acid and zinc.  
  
b. Label the oxidation numbers of each element in the equation above.  
c. Which substance is oxidized? \_\_\_\_\_  
d. Which substance is reduced? \_\_\_\_\_
6. Based on the reactions in Steps 2 and 3, which is more easily reduced, Cu or Zn?  
\_\_\_\_\_
7. a. Write the equation for the reaction between copper nitrate and zinc.  
  
b. Label the oxidation numbers of each element in the equation above.  
c. Which substance is oxidized? \_\_\_\_\_  
d. Which substance is reduced? \_\_\_\_\_