Assignment 0

1. Balance the following reactions and provide the balanced equation:

   a. Balancing:
   
   b. Reaction:
   
   c. Net reaction:

2. Transfer electrons through a combustion reaction:

   a. Reaction:
   
   b. Net reaction:

3. Answer the following multiple choice questions:

   a. What is the order of the reaction?
   - A) First
   - B) Second
   - C) Third
   - D) Fourth

   b. What is the rate constant for the reaction?
   - A) 0.01
   - B) 0.1
   - C) 1.0
   - D) 10.0

   c. What is the activation energy for the reaction?
   - A) 10 kJ
   - B) 100 kJ
   - C) 1000 kJ
   - D) 10,000 kJ

4. The reaction is a redox reaction. Write the balanced equation:

   a. Balanced equation:
   
   b. Net equation:

5. The reaction is an acid-base reaction. Write the balanced equation:

   a. Balanced equation:
   
   b. Net equation:

6. The reaction is a precipitation reaction. Write the balanced equation:

   a. Balanced equation:
   
   b. Net equation:

7. The reaction is a gas reaction. Write the balanced equation:

   a. Balanced equation:
   
   b. Net equation:

8. The reaction is a reaction involving transition metals. Write the balanced equation:

   a. Balanced equation:
   
   b. Net equation:

9. The reaction is an enzyme-catalyzed reaction. Write the balanced equation:

   a. Balanced equation:
   
   b. Net equation:

10. The reaction is a reaction involving transition metals. Write the balanced equation:

    a. Balanced equation:
    
    b. Net equation:

11. The reaction is a reaction involving transition metals. Write the balanced equation:

    a. Balanced equation:
    
    b. Net equation:

12. The reaction is an enzyme-catalyzed reaction. Write the balanced equation:

    a. Balanced equation:
    
    b. Net equation: