**SI WORKSHEET 12**

1. What is the equivalence point? What is the difference between this and the end point?
2. What is a titration? What do the terms analyte and titrant refer to?
3. What is thermodynamics? What do the 1st and 2nd laws of thermodynamics state?
4. If q is \_\_\_\_\_\_ then energy was transferred into the system and lost from the surroundings, if q is \_\_\_\_\_\_ then energy is lost from the system to the surroundings. If energy is lost by the system this is called a \_\_\_\_\_\_\_\_\_\_ reaction, if energy is gained by the system then this is an \_\_\_\_\_\_\_\_\_ reaction.
5. What is work? What is the difference between ⍙H and ⍙E?
6. If 100 g of water is heated from 23oC to 35oC, how much energy is generated in this process? (Specific heat constant for water = 4.184 J/g\*C)
7. You have 50 grams of water at 23oC you add a certain amount of Iron at 200oC. Once you have added the Iron you measured the temperature of the solution to be 100oC. How much iron did you add in this process? Did the energy/heat go from the water🡪iron or from the iron🡪water? (specific heat of iron=.45 J/g\*C)