Calorimetry Data Sheet

Student Name:

Partner Name:

Date	Instructor's Initials	Grade

Part One
Mass of Empty Calorimeter =
Mass of Calorimeter + Room Temp Water =
Mass of Calorimeter + Room Temp Water + Hot Water =
Mass of Room Temp Water =
Mass of Hot Water =
Temperature of Room Temp Water =
Temperature of Hot Water =
Final Temperature =
Calculate the heat capacity of your calorimeter. Show all your work. All of your values should have appropriate units and all of your equations should be properly formatted.

Part Two
Mass of Calorimeter + Water =
Mass of Water =
Mass of Ammonium Chloride =
Initial Temperature of Water =
Final Temperature of Water =
Calculate the enthalpy change of the solvation process based on the results of your calorimetry experiment. Do not forget to account for the heat lost to the calorimeter. Show all of your work.
Calculate the theoretical enthalpy change of the solvation process based on the standard enthalpy change. Scale the result appropriately using the exact mass of ammonium chloride you measured out. Show all of your work.

Part Three
Concentration of HCl =
Concentration of NaOH =
Volume of HCl =
Volume of NaOH =
Initial Temp of HCl =
Final Temp of Reaction Mixture =
Mass of Calorimeter + Reaction Mixture =
Mass of Reaction Mixture =
Calculate the enthalpy change of the neutralization process based on the results of your calorimetry experiment. Do not forget to account for the heat lost to the calorimeter. Show all of your work.
Calculate the theoretical enthalpy change of the neutralization process based on the standard enthalpy change. Scale the result appropriately using the exact volume of the limiting reagent in your reaction. Show all of your work.

Calculate your %Error for Part Two.
Calculate you %Error for Part Three.
Comment on any sources of error in your technique.