

CHEMISTRY LAB DATA SHEET

NAME _____

THERMODYNAMICS: Measuring Heats of Solution

PARTNER(S) _____

Data Table

$\text{Na}_2\text{S}_2\text{O}_3 \cdot 5\text{H}_2\text{O}$ "Hypo"		$\text{CaCl}_2 \cdot 2\text{H}_2\text{O}$	
mass of hypo (g)		mass of $\text{CaCl}_2 \cdot 2\text{H}_2\text{O}$ (g)	
molar mass of hypo (g/mol)		molar mass of $\text{CaCl}_2 \cdot 2\text{H}_2\text{O}$ (g/mol)	
moles hypo used (g)		moles $\text{CaCl}_2 \cdot 2\text{H}_2\text{O}$ used (g)	
Initial temp of water ($^{\circ}\text{C}$)		Initial temp of water ($^{\circ}\text{C}$)	
Final temp of water ($^{\circ}\text{C}$)		Final temp of water ($^{\circ}\text{C}$)	
change in temp ($^{\circ}\text{C}$) <i>be sure to include sign</i>		change in temp ($^{\circ}\text{C}$) <i>be sure to include sign</i>	
Heat (Joules) given off or absorbed by the water		Heat (Joules) given off or absorbed by the water	
ΔH (in Joules/mol of hypo)		ΔH (in Joules/mol of CaCl_2)	
ΔH (in kJ/mol of hypo)		ΔH (in kJ/mol of CaCl_2)	

10. Actual Heat of Solution for $\text{CaCl}_2 \cdot 2\text{H}_2\text{O}$ _____

Calculate % error. Neatly show all calculations for credit.

11. endothermic _____

exothermic _____

12.

13.