Name: _____ **Class:** _____ **Date:** _____ **ID: A**

heat of solution dry lab

Problem

1. You are investigating an unmarked container of chemicals. You have been told the formula weight of this chemical is 103.690 grams/mole.

   In the lab, you dissolve 8.70 grams of a chemical in 141.70 grams of water. The water in your calorimeter starts out at 24.40 °C, and after mixing, ends up at 15.02 °C.

   Please calculate the molar enthalpy of solution, ΔH_{soln}.(kj/mol)

   For full credit, **you must use the proper + or - signs** in the following, and you must show your work

   [1 pt] Joules added to (+) or removed from (-) the water:_____**J**

   [2 pts] ΔH_{soln} = _____ **(kJ/mol)**

   [1 pt] Is this **exothermic** or **endothermic**? ***Please circle correct term.***