**Name:** **Period:** **Seat#:**

Try these problems. If you can DO them, check the box (☑). If you CANNOT do them, write some notes TO YOURSELF about what you need to study to succeed at these problems.

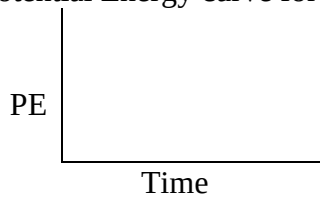
☐ **Exothermic & Endothermic**

When a solution of NaOH is neutralized by a solution of HCl, the solution gets very hot.

Is the water in the solution the ***system*** or the ***surroundings***? _____

Add "heat" to this molecular equation: $HCl(aq) + NaOH(aq) \rightarrow NaCl(aq) + H_2O(l)$

Draw the Potential Energy curve for this reaction.




☐ **Calorimetry**

How much energy does it take to heat 150. grams of aluminum metal from 25 °C to 150. °C? The specific heat of aluminum is 0.900 J/g·°C. (Show your work!)

If 375 J of energy is added to 25.0 mL of water at 20.0 °C, what is the final temperature of the water? The specific heat of water is 4.18 J/g·°C. (Show your work!)

*Struggled? Got some wrong? Do some self-study on the back of this page!*