**Dougherty Valley HS AP Chemistry**

**QUICK CHECK #2**

**Thermochemistry Review**

**Name: Date: 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) → NaCl(aq) + H2O(l)

Draw the Potential Energy curve for this reaction.

|  |  |
| --- | --- |
| PE |  |

Time

🞎 **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 using IESA.)

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 using IESA.)