Name _____ Period _____
College Prep Chemistry of the Earth System

Assignment 7G – Unit 7 Review                                                40 Points
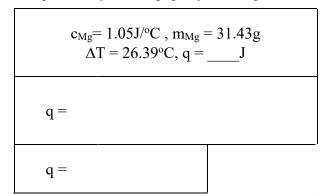*Define the following terms used in energy*

| Term | Definition | Term | Definition |
|---|---|---|---|
| Force | | Temperature | |
| Work | | Heat | |
| Kinetic Energy | | Exothermic | |
| Potential Energy | | Endothermic | |
| Heat Capacity | | Specific Heat Capacity | |
| Calorimetry | | Specific Heat Constant | |

A $\rightarrow$        $q_o = 18J$
                        $q_f = 103J$

B $\leftarrow$        $q_o = 91J$
                        $q_f = 37J$

| Heat ($q$) System | |
|---|---|
| Heat ($q$) Surround | |
| Endo/Exothermic | |

| Heat ($q$) System | |
|---|---|
| Heat ($q$) Surround | |
| Endo/Exothermic | |

*Specific Heat Equation Forms*

| *Specific Heat* | $q = c \cdot m \cdot \Delta T$ | $c = \dfrac{q}{m \cdot \Delta T}$ | $m = \dfrac{q}{c \cdot \Delta T}$ | $\Delta T = \dfrac{q}{c \cdot m}$ |
|---|---|---|---|---|
| *Change in T* | $\Delta T = T_{final} - T_{ini}$ | | $T_{final}$   $\Delta T + T_{ini}$ | $T_{ini} = T_{final} - \Delta T$ |

*Complete the following specific heat questions*

$c_{Mg}= 1.05 J/°C$ , $m_{Mg} = 31.43g$
$\Delta T = 26.39°C$, $q =$ _____ J

$q =$

$q =$

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$c_{Al}= 0.910 J/°C$ , $m_{Al} = 124.82g$
$T_{ini} = 94.27°C$, $T_{final} = 124.73°C$
$q =$ _____ J

$\Delta T =$

$\Delta T =$

$q =$

$q =$

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$q = -739.28J$, $c_{Ni} = 0.44 J/g°C$
$T_{ini} = 89.28°C$, $T_{final} = 35.28°C$
$m =$ _____ g

$\Delta T =$

$\Delta T =$

$m =$

$m =$

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$q = 1128.30J$, $m = 173.39g$,
$c_{Fe} = 0.45 J/g°C$, $\Delta T =$ _____ °C

$\Delta T =$

$\Delta T =$