Name _____ Period _____

College Prep Chemistry of the Earth System

Assignment 7F – Calorimetry   20 Points

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	$\Delta T = T_{final} - T_{ini}$	*Heat Transfer*	$q_{metal} = -q_{water}$	

Solve the following heat capacity problems

$c_{water} = 4.184 J/°C$, $m_{water} = 50.0g$ $T_{ini} = 100°C$, $T_{final} = 89.3°C$ $\Delta T = $____°C, $q_{water} = $____J, $q_{metal} = $____J	$c_{water} = 4.184 J/°C$, $m_{water} = 75.0g$ $T_{ini} = 100°C$, $T_{final} = 69.2°C$ $\Delta T = $____°C, $q_{water} = $____J, $q_{metal} = $____J
$\Delta T =$	$\Delta T =$
$\Delta T =$	$\Delta T =$
$q_{water} =$	$q_{water} =$
$q_{water} =$	$q_{water} =$
$q_{metal} =$	$q_{metal} =$

$q_{metal} = 3190.38J$ $q_{water} =$	$q_{metal} = 2835.38J$ $q_{water} =$
$T_{ini} = 100°C$, $T_{final} = 72.48°C$ $\Delta T = $____°C, $m_{water} = $____g	$T_{ini} = 100°C$, $T_{final} = 59.31°C$ $\Delta T = $____°C, $m_{water} = $____g
$\Delta T =$	$\Delta T =$
$\Delta T =$	$\Delta T =$
$m_{water} =$ _____	$m_{water} =$ _____
$m_{water} =$	$m_{water} =$