

Name: \_\_\_\_\_ Class: \_\_\_\_\_ Date: \_\_\_\_\_

ID: A

## Dry Lab Specific Heat of Metal

### Problem

1. A cube of hot metal is placed in some cold water.  
Use the data below to **calculate the specific heat of the metal**

Mass of cold water: 109.30 g

Temp cold water: 15.00 °C

Mass of hot metal: 132.90 g

Temp hot metal: 95.10 °C

Final temp of water: 34.80 °C

The specific heat of water is  $4.184 \text{ J}\cdot\text{g}^{-1}\cdot\text{K}^{-1}$

You must show work for full credit:

[2 pts]  $C_{\text{metal}} = \underline{\hspace{2cm}} \text{ J}\cdot\text{g}^{-1}\cdot\text{K}^{-1}$