

Lab #5: Specific Heat of an Unknown Metal Lab Calculations help/rough draft

| <u>system (unknown metal)</u> | <u>surroundings (distilled water in calorimeter)</u> |
|---------------------------------|--|
| q = _____ J | q = _____ J |
| c = _____ J/g·°C | c = _____ J/g·°C |
| m = _____ g | m = _____ g |
| t _{final} = _____ °C | t _{final} = _____ °C |
| t _{initial} = _____ °C | t _{initial} = _____ °C |
| Δt = _____ °C | Δt = _____ °C |

Notes:

- Final temperature of metal = final temperature of water = equilibrium = highest temperature of the calorimeter after adding the metal
- Initial temperature of metal = highest temperature metal was heated to (in a perfect lab, it would have been 100.0 °C)
- Initial temperature of water = temperature before the metal was added
- **Your answer for this lab is the identity of the unknown metal.** (The best list of specific heat capacity values is in a chemistry textbook.) You should base your answer not just on your specific heat capacity but on the [range of specific heat capacities that groups with your same metal calculated](#).