

Exercises on Calorimetry

Name: _____ Date: _____

1. How much heat energy is released when 250. grams of water cools from 35.0 °C to 30.0 °C?
2. A sample of water absorbs 55000 J of energy, and increases in temperature from 40°C to 70°C. What is the mass of the water?
3. A 400. gram sample of water releases 15000 J of heat energy. By how many degrees does its temperature decrease?

If the original temperature of the water is 90.0 °C, what is the final temperature?

4. A 210. gram solid substance decreases in temperature from 700 °C to 400°C and releases 450,000 J of heat energy. What is the specific heat capacity of this substance?
5. Copper metal has a specific heat capacity of .367 J/g*°C. If a 250.0 g chunk of copper increases in temperature from 25.0° to 300.0°C, how much heat energy has it absorbed?