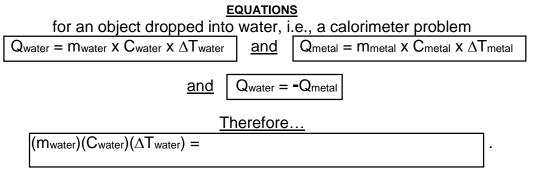
CALORIMETRY PROBLEMS



1) Calculate the specific heat of a metal if 2.36 x 10² grams of it at 99.5°C is added to 125.0 mL of water at 22.0°C. The final temperature of the system is 25.4°C.

2) A lump of chromium (Cr) has a mass of 95.3 grams and a temperature of 90.5°C. It is placed into a calorimeter with 75.2 mL of water at 20.5°C. After stirring, the final temperature of the water, Cr metal, and calorimeter is 28.6°C. What is the specific heat of Cr metal?

3) A 100.0 gram sample of water at 50.0°C is mixed with a 50.00 gram sample of water at 20.0°C. What is the final temperature of the 150.0 grams of water?