Name_____

Honors Chemistry
q lost = q gained worksheet

1. If 27 g of iron are dropped into 45 g of water at 65° F and the system comes to equilibrium at 35° C, what was the initial temperature of the iron?

2. You add 5.2 g of a metal at 99.0^{o} C to 45 g of water at 20.5^{o} C. The system comes to equilibrium at 21.0^{o} C. What is the metal?

3. If 86 g of aluminum at 55°C are dropped into water at 59° F and the system comes to equilibrium at 35° C, how much water was present?

4. If 1.25 moles of a substance at 99°C is dropped into 124 g of water at 72° F and the system comes to equilibrium at 35° C, what is the molar heat capacity of the substance (it is not on your list)?

5. 5.7 mol of cadmium at 76° C is dropped in water at 23° C, the system comes to equilibrium (both temperatures are equal) at 34° C. How many moles of water were present?