Specific Heat Worksheet

1. How many joules of heat are needed to raise the temperature of 10.0 g of aluminum from 22°C to 55°C, if the specific heat of aluminum is 0.90 J/goS?

2. Calculate the heat capacity of a piece of wood if 1500.0 g of the wood absorbs 6.75x10 joules of heat, and its temperature changes from 32°C to 57°C.

3. A 15.75-g piece of iron absorbs 1086.75 joules of heat energy, and its temperature
changes from 25°C to 175°C. Calculate the specific heat capacity of iron.

4. To what temperature will a 50.0 g piece of glass raise if it absorbs 5275 joules of heat and its specific heat capacity is 0.50 J/goS? The initial temperature of the glass is 20.0°C. +

5. An insulated cup contains 75 Og of water at 24.00°C. A 26.00g sample of metal at 82.25°C is added. The final temperature of the water and metal is 28.34°C. What is the specific heat of the metal? (ans 0.971 J/goC)