

1. If a sample of chloroform is initially at 25°C, what is its final temperature if 150.0 g of chloroform absorbs 1.0 **kilojoules** of heat, and the specific heat of chloroform is 0.96 J/g°C?
2. How much energy is required to heat 120.0 g of water from 2.0 °C to 24.0 °C? (Cp of H<sub>2</sub>O = 4.184 J/g °K)
3. When a 220 g sample of aluminum (Al) absorbs 9612 J of energy, its temperature increases from 25°C to 115°C.  
Find the specific heat of aluminum.