Solve the following questions with these given information

- Specific heat capacity of ice (C_{ice}) = 2.01J/g°C
- Specific heat capacity of steam (C_{steam}) = 2.06J/g°C
- Molar heat of fusion for water (ΔH_f) = 6.02kJ/mol
- Molar heat of vaporization for water(ΔH_v) = 40.6kJ/mol

1. How much energy is required to heat 190.0g of water from 25.0°C to 95°.0C?

2. How much energy is needed to evaporate 190.0g of water at 100.0°C?

3. How much energy is required to heat 300.0g of water from 45.0°C to 120.0°C?

4. How many joules are given off when cooling water from 10.0°C to -25.0°C?

5. How much energy is needed to heat up 55g of ice from -15.0°C into steam at 115.0°C?

6. What is the final temperature when 85.0kJ is added to 100.0g of water at -10.0°C?