Chemistry - Thermo HW2 - Energy Flow and Thermodymics

Name: _____ Date: _____ Per: _____
Please show all needed work

1. The first law of _____ states that the energy of the universe is constant.

2. Heat is typically measured in units of: _____.

3. SI units for specific heat capacity are: _____.

4. Perform the indicated conversion: 2.60×10^3 cal = _____ J

5. 2134.95 J of energy is equivalent to how many calories?

6. In the equation ΔE = q + w, the q stands for _____.

7. In the equation ΔE = q + w, the w stands for _____.

8. Calculate ΔE given the following information: q = +41 kJ, w = +11 kJ

9. A gas absorbs 75 kJ of heat and does 27 kJ of work. Calculate ΔE.

10. A system absorbs 159 kJ of heat, and performs 87 kJ of work on the surroundings. What is ΔE of the system?

Bank: work, heat, thermodynamics, joules, 72, 1.09×10^4, 48, 52, 510.265