Kinetic Theory of Gases II

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Definitions:

 First Law of Thermodynamics-

 Isothermal-

 Adiabatic-

 Second Law of Thermodynamics-

 Macroscopic States-

 Microscopic States-

 Degradation of Energy-

 What is the formula for the first law of thermodynamics?

 What is entropy and what is the formula for it?

 Can heat flow from a cooler object to a hotter object? If so, how?

Math:

1. Find the change in entropy of a 2 kg block of ice that melts completely while remaining at the melting temperature of 0 degrees C.
2. Find the change of entropy of a 2 kg puddle of water that freezes completely while remaining at 0 degrees C.

Heat of transformation of water is 3.335 x 10^5 J/kg