Name:_____

Date Started:_____Date Completed:_____Score:_____

Learning Activity Sheet
Introduction to Thermodynamics

A. Complete the table by Identifying the signs of the indicated variable for each process described in the first column.

Process description	Variable	Positive or Negative
The cup with water is heated on a stove.	Q	
The expansion of gas causes the piston to move.	W	
The piston is compressed or pushed	W	
The balloon inflates due to gas expansion.	W	
Heat is released by the system.	Q	

B. Solve the following problems and write your solutions on the space provided. (3 points each)

1. A 550 J of work is done on the refrigerant during compression. How much is the change in its internal energy when 1,000 J of heat is absorbed?

2. How much heat is released by a system when 45 J of work is done on it to decrease its energy to 23 J?