## COMBINED GAS LAWS LABORATORY ACTIVITY #9

## Solve: (SHOW YOUR SOLUTION)

1. A gas has a volume of 800.00 ml at -23.0°C and 300.0 torr. What would the volume of the gas be at 227.0°C and 600.0 torr of pressure?

## Solution:

$$\frac{\mathsf{P}_1\mathsf{V}_1}{\mathsf{T}_1} = \frac{\mathsf{P}_2\mathsf{V}_2}{\mathsf{T}_2}$$



2. A balloon of air now occupies 10.0 L at 25°C and 1.00 atm. What temperature was it initially, if it occupied 9.40 L and was in a freezer with a pressure of 0.939 atm?

Solution:

$$\frac{\mathsf{P}_1\mathsf{V}_1}{\mathsf{T}_1} = \frac{\mathsf{P}_2\mathsf{V}_2}{\mathsf{T}_2}$$

**Original Conditions** 

**Final Conditions** 

 $P_1 = 1.00 atm$ 

 $P_2 = 0.939$  atm