**GAS LAWS: Practice Problems**

1. If we took 2.00 liters of gas at 1.00 atm and compressed it to a pressure of 6,000 atm, what would the volume of that gas be?

Law being used: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**FORMULA WORK ANSWER**

Given 1:\_\_\_\_\_\_\_\_\_\_

Given 2:\_\_\_\_\_\_\_\_\_\_

Given 3:\_\_\_\_\_\_\_\_\_\_

1. Calculate the final pressure inside a scuba tank after it cools from 1000°K to 25.0°K. The initial pressure in the tank is 130.0 atm.

Law being used: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**FORMULA WORK ANSWER**

Given 1:\_\_\_\_\_\_\_\_\_\_

Given 2:\_\_\_\_\_\_\_\_\_\_

Given 3:\_\_\_\_\_\_\_\_\_\_

1. The temperature inside my refrigerator is about 2770 Kelvin. If I place a balloon in my fridge that initially has a temperature of 2950 Kelvin and a volume of 0.5 liters, what will be the volume of the balloon when it is fully cooled by my refrigerator?

Law being used: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**FORMULA WORK ANSWER**

Given 1:\_\_\_\_\_\_\_\_\_\_

Given 2:\_\_\_\_\_\_\_\_\_\_

Given 3:\_\_\_\_\_\_\_\_\_\_

1. If a gas in a closed container is pressurized from 15.0 atm to 16.0 atm and its original temperature was 298.0°K, what would the final temperature of the gas be?

Law being used: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**FORMULA WORK ANSWER**

Given 1:\_\_\_\_\_\_\_\_\_\_

Given 2:\_\_\_\_\_\_\_\_\_\_

Given 3:\_\_\_\_\_\_\_\_\_\_

1. Atmospheric pressure on the in Denver is .83 atm. If a traveler filled a balloon with 10.0 liters of Helium at sea level (1 atm of air pressure) and carried balloon filled with of Helium from sea level up to Denver, what will be the volume of the balloon when the traveler gets to Denver?

Law being used: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**FORMULA WORK ANSWER**

Given 1:\_\_\_\_\_\_\_\_\_\_

Given 2:\_\_\_\_\_\_\_\_\_\_

Given 3:\_\_\_\_\_\_\_\_\_\_

1. A soda bottle is flexible enough that the volume of the bottle can change even without opening it. If you have an empty soda bottle (volume of 2 L) at room temperature (2950K), what will the new volume be if you put it in your freezer (265 0K)?

Law being used: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**FORMULA WORK ANSWER**

Given 1:\_\_\_\_\_\_\_\_\_\_

Given 2:\_\_\_\_\_\_\_\_\_\_

Given 3:\_\_\_\_\_\_\_\_\_\_