**Playing With The Gas Laws At Home**

Answer each of the following questions, using the combined gas law and the ideal gas law as your guides:

1. Imagine that your brother/sister/pet are hollow and full of gas. If the temperature in your house is 24 degrees Celsius, the internal pressure of your brother/sister/pet is 1.0 atm, and the volume is [whatever you estimate it to be], determine the number of moles of gas they contain.
2. An average refrigerator has a temperature of about -3 degrees Celsius and an internal pressure of 1.0 atm. If we were to put the refrigerator in an oven that increased its temperature of 1150 degrees Celsius, what would the new pressure be inside the refrigerator? (Assume the refrigerator won’t be destroyed by this experiment).
3. The lungs of a penguin average about 0.350 L in volume (I looked it up). If a penguin dives from sea level (where the pressure is 1.00 atm) to a depth of 100 meters (where the pressure is 3.00 atm), what would the volume of the diving penguin’s lungs be?
4. An astronaut went on a spacewalk but had a terrible accident within his suit. Rather than being under the normal conditions, the suit, which contained 10 moles of gas, reached a temperature of 850 K and a pressure of 0.0050 atm. If