**Gas Laws Quiz – Makeup**

Note: R = 0.08206 Latm/molK

1) I’ve got an empty bottle of soda in my house at a temperature of 24 degrees Celsius with a volume of 375 mL. If the air conditioning goes out in my house and the temperature rises to 35 degrees Celsius, what will the pressure in the bottle be? (5 pt)

2) A 287 mL can of soda at 10 degrees Celsius has approximately 0.075 moles of carbon dioxide dissolved in it. If the liquid were removed leaving only the CO2 in the can, what would the pressure be inside the can? (5 pt)

3) Let’s say that I have a 400 mL can of soda at 25 degrees Celsius at a pressure of 1.40 atm. If you increase the temperature to 500 degrees Celsius and leave the volume of the can the same, what will the new pressure be inside the can? (5 pt)

4) A basketball has a volume of 7.6 liters. If I want the basketball to have a pressure of 1.75 atm at a temperature of 15 degrees Celsius, how many grams of krypton gas (Kr) would I need to fill it with? (5 pt)