Name:_____

Instructions: You have 10 minutes to complete the following quiz. Use the proper number of significant figures and units in each of your answers.

$R = 0.08206\ L\ atm\ mol^{-1}\ K^{-1}$

1. (3 points) Sketch a plot of Boyle's Law. Briefly describe the things that vary, and things that remain constant in that law.

2. (3 pts) Carbon dioxide gas in a 15.0L container, at a pressure of 742 Torr, and a temperature of 32.0C is heated to 450.0K while the container is compressed to 12.5L. What is the new pressure in atm?

3. (4 pts) In the reaction below, 1.75 atm of sulfur dioxide is added to 0.58 atm of oxygen to make sulfur trioxide in a 2.50L container at 298K. What is the pressure of sulfur trioxide at the end of the reaction?

$$SO_{2(g)} + O_{2(g)} \rightarrow SO_{3(g)}$$