Working with the Ideal Gas Law Pre-Lab

1. What is the purpose of this experiment?

2. Write the equation for the reaction and label the components.

3. What type of acid is nitrous acid?

4. Which compound will be in excess? Which is the limiting reactant?

5. Show the calculation for the mass of NaNO₂ required to produce 40.0 mL of N₂ with a temperature of 25.6 °C and an atmospheric pressure of 739 mmHg. (use equation (3) in the lab manual)

6. Why is it necessary to test for leaks?

7. Why must you be careful when lowering the 2 dram vial into the large test tube?

8. Why is it necessary to set the funnel water level equal to the buret water level, once the reaction has come to completion?

Notebook Pre Lab Exercises:
Write a brief statement of purpose in your notebook.
Copy down any tables you will need, leave room for extra measurements if needed.
Be sure to include units for all of your measurements and the correct number of significant figures.