

Pre-lab Questions – Experiment 7: The Ideal Gas Law

Write answers to the following questions on this page and bring it with you to lab. Show all your work and use correct significant figures.

1. Determine and record the molar mass of NaNO_2 .
2. Show how you would convert a pressure in units of mmHg to units of atm.
3. Find the values of the gas constant, R , that are most useful if your pressure units are in:
 - a) mmHg
 - b) atm
4. You perform an experiment and collect 13.75 mL of N_2 gas at $24.8\text{ }^\circ\text{C}$ over water. If the barometric pressure is 758.2 mmHg, how many moles of N_2 did you collect? The vapor pressure of water at $24.8\text{ }^\circ\text{C}$ is 23.475 mmHg.